Recommended Reading: Amazon’s algorithms, conspiracy theories and extremist literature
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Glossary

Conspiracy theory
In line with US political scientist and academic Joseph Uscinski, ISD defines a conspiracy theory here as an “explanation of past, ongoing, or future events or circumstances that cites as a main causal factor a small group of powerful persons [...] acting in secret for their own benefit and against the common good”.

Extremism
Extremism is the advocacy of a system of belief that claims the superiority and dominance of one identity-based ‘in-group’ over all ‘out-groups’, and promotes a dehumanising ‘othering’ mind-set that is antithetical to pluralism and the universal application of human rights. Extremist groups pursue and advocate a systemic political and societal change that reflects their world view. They may do this through non-violent and more subtle means, as well as through violent or explicit means. Extremism can be advocated by state and non-state actors alike.

Far-right
In line with Dutch political scientist and far-right expert Cas Mudde, ISD defines the far-right as groups and individuals exhibiting at least three of the following five features: nationalism, racism, xenophobia, anti-democracy or strong state advocacy.

White nationalism
White nationalism is advocacy for a separate white society or white nation, also sometimes referred to as a white ethnostate. The Anti-Defamation League describes white nationalism as a euphemism for white supremacy; the term is now used to “refer to a form of white supremacy that emphasizes defining a country or region by white racial identity and which seeks to promote the interests of whites exclusively, typically at the expense of people of other backgrounds”.
**Introduction**

The role of algorithms in propelling conspiracy theories and radicalisation has been brought into sharp focus by the interlocking crises of the past 12 months. Social media platforms have sought to tamp down on algorithmic recommendation of conspiracy theories and extremist content, for example by preventing conspiracy-linked hashtags from trending or stopping certain groups and pages from being recommended to other users.

Social media platforms are far from the only tech companies to use algorithms at scale for content curation and recommendation. Many online book retailers use recommendations driven by algorithms to direct potential customers who have shown interest in one book towards other, similar books. For most users this is a harmless and often helpful feature for discovering new books they might want to read. However, in the context of conspiracy theories or extreme content, this rapidly becomes a problematic system driving users towards more extreme and misleading beliefs or factually wrong information.

This briefing seeks to highlight some of the ways in which this can happen. It is intended to be illustrative rather than exhaustive. This is not a comprehensive data-driven analysis, but rather an accessible walk-through of ways in which algorithmic recommendations for books on Amazon can help to drive its customers towards concerning content. This includes COVID-19 disinformation, QAnon and other conspiracy theories including the widely debunked claim that the US 2020 presidential election was fraudulent, as well as far-right, pro-fascist and white nationalist books.

Recent research has demonstrated the role that Amazon’s search results can play in propagating conspiracy theories and health misinformation. A study conducted by researchers at the University of Washington found that 10.47% of Amazon’s search results on key terms related to vaccines include health misinformation, and that misinformation results rank more highly than debunking results.\(^1\) A collaborative research project between King’s College London, the University of Amsterdam, and the Digital Methods Initiative Winter School, in association with the infodemic.eu project, also found that Amazon’s searches recommended COVID-19 conspiracy books to customers.\(^2\)

However, as this briefing seeks to demonstrate, search results are not the only ways in which algorithmic recommendations on Amazon direct users towards potentially harmful content.

While this briefing focuses on English-language books for sale on Amazon, similar dynamics are likely to be at work in other languages and on other online book retailers using recommendation algorithms. To prevent findings from being skewed by any previous activity as much as possible, the research was conducted while not logged into an Amazon account, with browser cookies cleared and using a VPN.

At the core of this issue is the failure to consider what a system designed to upsell customers on tote bags or fitness equipment or gardening tools (and which has proven to be one of the most successful systems in the world for doing so) would do when unleashed on products espousing conspiracy theories, disinformation or extreme views. The entirely foreseeable outcome is that Amazon’s platform is, in effect, inadvertently but actively promoting these ideas to their customers.

The findings also raise the spectre of monetisation. These recommendation algorithms not only direct people towards potentially dangerous content in an escalatory fashion, but they also have the potential to direct more money into the pockets of the authors (as well as, to some extent, those of Amazon itself). In the cases considered here, those authors include well-known conspiracy theorists who have been banned from multiple online platforms for sharing dangerous and false information, as well as far-right activists who openly promote racist or white nationalist beliefs.

The question of whether these books should be sold on Amazon’s platform is a contentious one. Book banning has a long and complex history, and there are good reasons to be wary of it. However, the question of whether Amazon should actively promote books containing potentially harmful content to its customers is arguably a separate and in some ways simpler issue. Removing recommendations for books that espouse conspiracy theories, disinformation or extremist viewpoints could go a long way towards reducing their reach, and thereby reducing the spread of this content.
Amazon’s recommendation algorithms

On book landing pages, Amazon recommends other books to users in several ways. These are ‘Customers who bought this item also bought’, ‘Customers who viewed this item also viewed’, ‘What other items do customers view after viewing this item?’ and paid ads, which sometimes appear billed as ‘Products related to this item’ (Figure 1).³

For the unpaid recommendations, Amazon uses a system known as item-to-item collaborative filtering. This means that the algorithm looks at Amazon’s data on how often someone who purchases or views Product A will also go on to buy Product B, and uses that data to calculate how related two products are. This in turn determines which related items are shown to other users and in what order. More information is available on Amazon’s blog.⁴

For users who visit author pages, Amazon also recommends other authors via the ‘Customers also bought items by’ pane on the left-hand side of the page.

For most users, these recommendations are at best a useful way of finding new content they are interested in, and at worst an irritation to be harmlessly ignored. For conspiracy theorists, white nationalists and users perhaps only curiously dipping their toes in the murky waters of extremist or conspiratorial content, however, these recommendations could serve as a gateway into a broader universe of conspiracy theories and misinformation, or to increasingly radical far-right and white nationalist content.
Figure 1
Screenshot of book landing page for *The Book Thief*, showing recommendation panes ‘Customers who bought this item also bought’ and ‘Customers who viewed this item also viewed’, captured 18 March 2021
Cross-pollinating conspiracy theories

One of the effects of the recommendation algorithm is to cross-propagate conspiracy theories: users who view a book about one conspiracy theory are likely to be recommended not only more books about that conspiracy theory, but also books about other conspiracy theories.

For example, users who visit the landing page for the book *Anyone Who Tells You Vaccines Are Safe and Effective is Lying*, authored by well-known conspiracy theorist Vernon Coleman (who first came to public attention for denying the existence of HIV/AIDS), are not only directed towards other anti-vaccine books, but also guided to COVID-19 conspiracy content. This includes a best-selling book by Judy Mikovits, a key figure in the viral pandemic COVID-19 conspiracy video (the pandemic video was initially created as part of the marketing campaign for the book).

Other conspiracy theories recommended to users who view *Anyone Who Tells You Vaccines Are Safe and Effective is Lying* include books about the new world order; sovereign citizen conspiracy books; and QAnon content in the form of Martin Geddes’ *Open Your Mind to Change: A Guidebook to the Great Awakening* (Figure 2).

Thus users who simply follow Amazon’s recommendations when searching for information on vaccines could, in the space of a handful of clicks, end up perusing books on COVID-19, the New World Order or QAnon conspiracy theories.

Users who intentionally search for conspiracy content are also directed to other conspiracy theories. For example, users viewing *THE HAMMER is the Key to the Coup “The Political Crime of the Century”: How Obama, Brennan, Clapper, and the CIA spied on President Trump, General Flynn ... and everyone else*, a book written by the key proponents of the Hammer and Scorecard conspiracy theory about the US 2020 election, are directed towards books about various political conspiracy theories written by:

- George Webb, a long-time conspiracist who was instrumental in promoting a conspiracy theory that linked the origins of the COVID-19 pandemic to a US Army reservist who visited Wuhan in 2019 to compete as a cyclist in the Military World Games.
- Sidney Powell, a former Trump lawyer and QAnon promoter who is now being sued for her role in spreading the Dominion voting machine conspiracy theory (after allegedly hiding from efforts to serve her with the lawsuit for weeks)
- ‘Greg Rubini’, a pseudonym for a QAnon conspiracy theorist who claimed to have access to classified insider information about the US government but was later revealed to be, as Buzzfeed put it, “a random Italian guy”.

In addition to QAnon-linked content, visitors to the Amazon page for Geddes’ QAnon book *Open Your Mind to Change: A Guidebook to the Great Awakening* are also recommended conspiracy theories about aliens, 9/11, antisemitic conspiracy theories linked to the Rothschilds, and a book by David Icke, who is perhaps best known for advancing the conspiracy theory that the world is secretly run by a race of lizard people (Figure 3).

This demonstrates how Amazon’s recommendation algorithms drive users deeper into conspiratorial content and cross-pollinate conspiracy theories.
Figure 2
Screenshot of some recommendations for *Anyone Who Tells You Vaccines Are Safe and Effective is Lying*, captured 15 February 2021; not all recommendations are pictured.

Figure 3
Screenshot of some recommendations for *Open Your Mind to Change: A Guidebook to the Great Awakening*, captured 15 February 2021; not all recommendations are pictured.
This observed dynamic of Amazon’s proactive promotion of new or additional conspiracy theories to users via book landing page recommendations such as ‘Customers who bought this item also bought’ and ‘Customers who viewed this item also viewed’ becomes particularly problematic where books form a part of a strategy for a broader ideological and political project.

The novel *Crucible: Child Patriot American Victory* was published on Amazon in September 2020 by Jason Köhne, who is also known by his online moniker No White Guilt. Köhne is the driving force behind an ideological project which he calls the Go Free Movement, and which he frames as a campaign against “anti-whiteness”. Köhne claims that his campaign is about “white wellbeing”, “white positivity” and opposition to “anti-white meme pathogens”. Hannah Gais, writing for the Southern Poverty Law Center, has described Köhne as a white nationalist.

Köhne’s books on Amazon are intended to play a central role in his efforts to propagate his ideas and recruit new members into his movement, including targeting Trump supporters. In a September 2020 livestream (alongside Mark Collett of Patriotic Alternative, a UK-based far-right group, and a representative from New Zealand white nationalist group Action Zealandia) Köhne described his most recent book, *Crucible: Child Patriot American Victory*:

> [T]his is the book that we’re going to use to get to the MAGA people, to get to the millions of our brothers and sisters in the United States, the groundwork is being laid ... The book is now available, let’s make sure that we push with all of our might from here until and past election day so that all of these many, many millions of our brothers and sisters can finally be brought over to some lexicon, dialectics, that will serve them and therefore all of us, and then a percentage of those brought over to Going Free in proper, and then we can really bring a change in the United States of America and around the world.

In a livestream promoting the book, Köhne discussed intentionally tailoring the cover illustration of the ‘Presidential Election 2020 Collectors’ Edition’ of the book to appeal to MAGA and Trump fans, including incorporating a red baseball which looks like the well-known MAGA hats.

Köhne and his supporters have created multiple YouTube commercials for the book, and Köhne has been sharing the Amazon link for the book in his regular livestreams and video uploads (Figure 4).

If Köhne’s targeting and recruitment strategy succeeds in drawing new users to visit the book’s Amazon page, Amazon’s recommendation algorithm both attempts to sell them more of Köhne’s work and recommends a range of literature that promotes overtly pro-fascist or white nationalist ideas (Figure 5).
Figure 5
Screenshot of some recommendations for *Crucible: Child Patriot American Victory*, captured 16 February 2021; not all recommendations are pictured.
Recommendations include *Revolt Against the Modern World* by Julius Evola, an Italian author who was arrested and tried in 1951 for promoting the revival of the Fascist Party. He was acquitted after declaring himself to be not a fascist but rather a superfascist, and is today a darling of alt-right and neo-Nazi circles.\(^\text{10}\)

Other notable recommendations are *The Blackening of Europe: Ideologies & International Developments*, *Race Differences in Ethnocentrism*, *Why Race Matters*, *Hitler and the Power of Aesthetics*, *Whiteness: The Original Sin*, and a variety of books hinting towards various doomsday prepper and antisemitic conspiracy theories.

In this example, Amazon’s recommendation system is effectively aiding and abetting Köhne’s efforts to indoctrinate newcomers into the broader universe of white nationalist and far-right ideologies by recommending other far-right and white nationalist material to those searching for his book.
Auto-complete: recommending rabbit holes

Another way in which Amazon draws on algorithms to recommend content, albeit indirectly, is through its search auto-complete function. In a similar manner to other platforms such as Google Search, auto-complete searches are suggested to Amazon users who type into the search bar on the platform.

The first example in this briefing is based on a search in the Books category for the term ‘vaccine’. When users do this, they are immediately recommended multiple searches which will lead them directly to anti-vaccine content (Figure 6).

The Kindle Store category’s search auto-complete recommendations for ‘vaccine’ are similarly problematic; they include ‘vaccines are dangerous’ and ‘vaccines the biggest medical fraud in history’ (Figure 7).

The auto-complete recommendations vary according to the category selected. For example, searching for ‘election’ in All Categories generates auto-complete suggestions that relate to the topic of election fraud, possibly linked to the debunked conspiracy theory of supposed fraud in the outcome of the US 2020 presidential election. These appear as the third, fifth and ninth options provided by auto-complete for that search. The same search in Books returns only one auto-complete suggestion, which is ‘election fraud’ (Figure 8).

The top two auto-complete recommendations in the Kindle Store category for users who use the search term ‘election’ also appear to relate to conspiracy theories about election fraud (Figure 9). Users who click on the top recommended search, ‘election fraud 2020’, are directed to results led by The Deep Rig, a book written by high profile conspiracy theorist and former Overstock CEO Patrick Byrne, which promotes the debunked and baseless claims of widespread fraud in the 2020 US presidential election. Amazon lists the book as a bestseller (Figure 10).

These initial findings imply that Amazon’s search auto-complete suggestions could potentially direct users from searches about an ‘election’ to being sold baseless and harmful conspiracy theories in just two clicks. From there, as stated above, Amazon’s recommendations would show them a range of books on various US political conspiracy theories, COVID-19 disinformation, sovereign citizen and new world order conspiracy theories (Figure 11).
Figure 6
Screenshot of Amazon search auto-complete recommendations for Book category including ‘vaccines are dangerous – and don’t work’, ‘vaccine-nation poisoning the population, one shot at a time’, ‘vaccine truth’ and others, captured 2 March 2021

Figure 7
Screenshot of Amazon search auto-complete recommendations for Kindle Store category including ‘vaccines are dangerous’ and ‘vaccines the biggest medical fraud in history’, captured 2 March 2021
Figure 8
Screenshot comparing auto-complete search suggestions for ‘election’ in All and Book categories, showing suggestions including ‘election fraud’, captured 2 March 2021
Figure 9
Screenshot showing auto-complete suggestions in Kindle Store category for 'election', showing suggestions including 'election fraud 2020' and 'election fraud', captured 2 March 2021

Figure 10
Screenshot showing results for a search for 'election fraud 2020' in the Kindle Store category, captured 2 March 2021

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Figure 11

Screenshot of some recommendations for The Deep Rig (or what to send friends who ask, ‘Why do you doubt the integrity of Election 2020?’), captured 2 March 2021; not all recommendations are pictured
Amplifying authors

Another way in which Amazon’s recommendation systems can point users towards extremist content is via the author pages. On author pages, users are shown a side-panel titled ‘Customers also bought items by’, recommending other authors whose work might be of interest to the person searching. Customers who buy books by an author who produces extremist content are also likely to buy books from other extremist authors, thereby training the algorithm to proactively recommend those authors to new users interested in similar topics.

An example of how this works is the Amazon author page for ‘Anton Long’, founder of the Order of Nine Angles (O9A), a Satanic belief system with strong connections to neo-Nazi and far-right communities around the world. Multiple individuals inspired by the Order of Nine Angles have been charged with violent criminal offences, sexual abuse and assaults including of minors, and planned terror attacks. There have been calls for O9A to be described as a terrorist organisation, although the opaque structure of the group (if it can be considered a group at all, which experts dispute) is likely to make this complicated.

‘Anton Long’ is known to be a pseudonym. ‘Long’ has authored numerous books and articles laying out O9A’s ideology, several of which are now available for sale on Amazon (Figure 12).

Visitors to Long’s author page on Amazon are recommended to visit the work of Satanists and self-professed superfascist Julius Evola, discussed above. Another recommendation is Varg Vikernes, a Norwegian black metal musician and neo-Nazi who holds a mix of Odinist and esoteric Nazi beliefs and has served prison sentences for murder, arson attacks on churches and the theft and storage of 150kg of explosives. He legally changed his name after leaving prison and now goes by Louis Cachet, but continues to sell his books on occultism and Paganism on Amazon under the better-known name Varg Vikernes.
Discussion

In driving users towards conspiracy theories, disinformation and extremist books, Amazon’s recommendation algorithms are potentially directing their customers toward content which could lead, directly or indirectly, to harm.

The damage that individuals sucked into conspiracy theories like QAnon can cause to themselves and others is increasingly apparent; in the wake of 6 January 2021, the damage which it can cause to entire communities and nations is also plain to see. Health disinformation can cost lives in the context of a global pandemic, and could set back the path to recovery for entire communities if it results in even a relatively small proportion of the population refusing to be vaccinated. The promotion of racist and white nationalist propaganda is always abhorrent, but is perhaps particularly concerning amid warnings of rising far-right extremist threats in countries around the world. Currently, Amazon’s recommendation algorithms actively promote books that spread each of these potentially dangerous viewpoints.

Whether or not these books should be on Amazon’s platform at all is a complex and challenging question. Banning books is a contentious issue, and innately and reasonably stirs fears of censorship. Authoritarian regimes throughout history have themselves relied on the banning of books to protect their causes and power structures.

Amazon has recently removed some extremist content from its platform, including taking down 92 books promoting Holocaust denial in January 2021, though many other books explicitly denying the Holocaust’s existence continue to be sold on the platform as of March 2021. Amazon also removed the white supremacist novel *The Turner Diaries* in January 2021, but in March 2021 users who searched for ‘turner diaries’ in vain on Amazon were instead directed towards *The Anarchist’s Cookbook*, a well-known guide for DIY bomb-making, and a novel described by Susy Buchanan for the Southern Poverty Law Center as a fictionalised version of an anti-immigrant conspiracy theory (Figure 13). It is not clear that this is much of an improvement in protecting public safety or security.

However, the proactive recommendation of this type of content to users, beyond their attempt to find these precise books, topics or authors, goes beyond the question of mere hosting of these products.

It also draws in the matter of corporate promotion of extremist and conspiracy theory content for commercial gain. Amazon is demonstrating the proactive role that technology services can play in mediating users’ online experiences based on targeting and recommendation models that are built to retain customers’ attention or to promote purchases. Applying the same systems which work so well to upsell more handbags, pillow covers or cricket bats to selling products promoting conspiracy theories and extremist views is potentially harmful in a way that goes beyond merely hosting those products.

There is a growing conversation around the need for transparency in how algorithms operate and how they derive the conclusions they come to. In this particular case, however, we do have a reasonable understanding of how Amazon’s item-to-item collaborative filtering algorithms operate. The concern is not the algorithms themselves, but the lack of forethought in how and if they should be applied to products that promote potentially harmful material.

If Amazon wishes to keep this type of content on its marketplace, turning off recommendations for these books would at least prevent their own algorithms from promoting it and thereby actively contributing to the spread of conspiracy theories, disinformation or racist beliefs. Other online services have tried to take this approach in order to reduce their role in supporting and promoting potentially dangerous content; for example, Facebook and Twitter removed explicit QAnon-related content from certain algorithmic recommendation functions in 2020.
Figure 13
Screenshot showing search results for 'turner diaries' in the All category, captured 17 March 2021
Likewise, moderating search auto-complete suggestions would help to avoid Amazon recommending conspiracy theories to users, particularly those who have only searched for general terms. Google took similar steps on some political search auto-complete suggestions ahead of the US 2020 presidential election.\textsuperscript{11} These changes could help to reduce the role which Amazon plays in spreading harmful content, and also reduce profits flowing via Amazon to the authors selling such content.

More comprehensive research will be needed to fully understand the role which Amazon and other online retailers play in the conspiracy theory, disinformation and far-right information ecosystems. However, this briefing has sought to shed some light on the way algorithms amplify and enable the spread of potentially harmful content.
References


14. Amazon author page for ‘Varg Vikernes’, captured 8 March 2021, archived here: https://archive.is/z0YGB


