Open Source, Self Defence: Tackling the Challenge of Extremist Websites and Open Source Tech

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Digital platforms and services are becoming an increasingly crucial tool for far right, white supremacist and extremist actors to promote their ideologies, spread propaganda and recruit new members. Significant attention has been paid in recent years to the way these actors use social media platforms, in some cases resulting in those actors being banned from the platform entirely (in theory, if not always in practice).

This has prompted many in the far right and white supremacist communities to call for the creation of an ‘alt-tech’ ecosystem of social media platforms and digital service providers who support their ideologies, or at least adhere to an absolutist vision of free speech and will not intervene to prevent the promotion of hate speech or extremism.

We have seen some early, albeit at times stumbling, steps towards this in the social media sphere with the creation of platforms like Gab, Parler, Bitchute, Mewe and more.

However, there is another element which has received less attention of late, and yet which is arguably a lynchpin of the online presence of the far right and extremist community: websites.

As with almost any other organisation in the modern day, the websites of far-right groups are effectively their public face to the world. These groups fully understand the importance of aesthetics in promoting far right and white supremacist ideology; at the same time, however, most of them are not web developers. Like most organisations without in-house web development skills, they rely on an array of tools and services to build slick, professional looking sites, dressing up ugly ideas in attractive packaging.

There has been some pressure on companies, perhaps most notably Cloudflare, to stop enabling these actors to operate via use of their company’s tools and services. As will be discussed below, after significant negative media attention Cloudflare has withdrawn its services from particular sites in several high-profile cases.

The purpose of this briefing is to assess the tools, technologies and services that far right and extremist communities are using to build their websites, including looking for any indications of the growth of an alt-tech ecosystem of website service providers.

To that end, ISD has analysed 100 websites linked to the far right and white supremacist communities to establish which tools, services or platforms are most commonly in use. This small sample is intended only as a snapshot of the broader landscape, but nonetheless reveals some interesting trends which are worthy of discussion.

The 100 websites analysed for this research included:

- 56 sites belonging to or associated with far right or white nationalist/supremacist groups (some of which also sell merchandise);
- 1 merchandise site selling general Nazi, white supremacist and antisemitic merchandise, not overtly affiliated with any particular group;
- 8 forums linked to the far right or white nationalist/supremacist community;
- 35 sites publishing or hosting far right or white nationalist/supremacist media (primarily written content such as articles, but also including some audio and visual content).

These sites were collected from ISD’s existing knowledge of the online far right communities and through consultation with partner organisations. With the exception of a handful of sites which are already well known, such as Stormfront or The Daily Stormer, this research will not be naming the groups or providing specific details for individual sites in order to avoid amplifying them. The dataset is available from ISD on request.

This quantitative data has been supplemented by qualitative research on far-right forums to gauge opinions amongst the community about website service providers.

The final section includes a discussion on the possibilities for a response to extreme, far right and white supremacist content from open source communities, and the potential to move beyond a reductive take down/leave up binary in content moderation.
Glossary

**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 mindset 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 worldview. 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.

**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".

**White supremacism**
White supremacy is a system of belief that posits the superiority of whites over non-whites, and advocates that white people should be politically and socially dominant over non-white people. This can extend to a belief in the need for violence against, or even the genocide of, non-white people.

**Far right communities**
ISD’s definition of the far right is in line with right-wing extremism expert Cas Mudde. He has defined the term as groups and individuals that support or endorse political or social belief systems that feature at least three of the following five features: nationalism, racism, xenophobia, anti-democracy and strong state advocacy. Mudde’s definition of “far right” includes both radical right-wing and extreme right-wing actors. Mudde states that both radical and extreme right-wing actors believe that “inequalities between people are natural and positive”, but have differing attitudes towards democracy. Radical right-wing actors are not against democracy in principle, while extreme right-wing actors reject democracy as a form of government.
Key findings

The research did not find indications of any widespread use of alt-tech services in the sample group, with the exception of four sites hosted by Zensurfrei, a webhosting service run for almost twenty years by well-known US-based neo-Nazi Gary Lauck.¹

Instead, our analysis found that far right and white supremacist communities continue to use mainstream services despite expressing reservations or antagonism against them. It also found the widespread use of self-hosted, open-source tools like vBulletin and Wordpress, which arguably obviate the need for an alt-tech ecosystem developing in the social media space.

Several tools and services were particularly prominent and are discussed in more depth here.

Cloudflare

Perhaps the least surprising finding was a relatively widespread use of Cloudflare by almost half (46) of the websites analysed. Cloudflare’s formerly good reputation amongst the extreme right has declined since the company’s decision² to stop providing DDoS protection to some well-known neo-Nazi and far right sites including Stormfront, The Daily Stormer and 8chan³ (after the forum was linked to multiple mass shooting attacks).

Despite this growing scepticism and hostility, the far right and white nationalist communities continue to use Cloudflare due to a genuine need for its services and a lack of better alternatives. Cloudflare is still perceived as being a safer option for the far right than other DDoS protection providers.

Figure 1 Screenshots of comments from far-right forums referencing Cloudflare as having been compromised after disabling services for far-right sites.

Figure 2 Screenshots of comments from far-right forums referencing Cloudflare as a “necessary evil”.

¹ Zensurfrei
² Cloudflare
³ 8chan
Google Analytics
Over a third (35) of the sites used Google Analytics. This finding was somewhat unexpected in that far-right webmasters and organisations are generally (or at least present themselves as being) conscious of a need to protect the privacy and anonymity of their users from potential law enforcement and intelligence investigations. The decision to install Google Analytics, which collects a significant data on site users and is likely to cooperate with law enforcement requests, therefore seems an odd one.

As is the case with Cloudflare, it appears that the need and ease of using this type of service may have simply overcome any misgivings which groups and webmasters hold. In a discussion on the neo-Nazi forum Stormfront, multiple posters expressed the view that there really was no alternative to ‘Big Tech’ services like Google Analytics.

vBulletin
Five of the eight forums examined relied on the open-source forum software vBulletin. All of the forums also used Cloudflare, making it difficult to establish whether the forums were using managed or self-hosted versions of vBulletin. This included Stormfront, alongside other forums which are even more violently racist.

Comments on far-right forums and imageboards do not reflect a great deal of enthusiasm for vBulletin. Concerns from users typically relate to it being unattractive or prone to being hacked, but don’t highlight any obstacles to its use for extreme or violent content.

Under the Terms and Conditions of Internet Brands, the parent company of vBulletin, offensive content including hateful, threatening or illegal content is prohibited from their sites and services.
When contacted by ISD to clarify whether vBulletin had any procedures in place to prevent hateful or illegal uses of its services, vBulletin’s representative responded that the site had no control over how its software was used after being purchased, and recommended contacting local law enforcement to file a complaint.

This is not in a practicable solution in most instances. With the exception of Stormfront, these forums almost never provide physical addresses. Cloudflare obscures whatever information might be gleaned from the hosting provider or other site registration details. It would likely be extremely difficult to establish which local law enforcement to complain to, and the chances of law enforcement being able or willing to take action are likely to be low, except in circumstances of credible, immediate real-world threats.

**WordPress**

By far the most prominent finding in the analysis was the widespread use of WordPress, and of WordPress’s e-commerce platform WooCommerce. 63 of the 100 sites used WordPress, while of the 27 sites using an e-commerce solution, 18 (67%) used WordPress’s WooCommerce. 11 were using Wordpress/Automattic’s Jetpack plugin.

WordPress is the world’s most popular Content Management System (CMS), used in an estimated 34% of all websites in 2021. Essentially, users of WordPress have two options. They can use the paid Wordpress.com version of the software, which includes hosting by Wordpress.com’s parent company Automattic, or they can run an open-source version of Wordpress, known as Wordpress.org, on their own hosting provider. WooCommerce is also open-source and can be run for free on a self-hosted WordPress site.

The open-source version of WordPress is supported by the US-based Wordpress Foundation, and maintained by a largely volunteer community who give their time and expertise to maintaining WordPress, including managing security, working on marketing and moderating themes and plugins.

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**Figure 4** Screenshot of Stormfront posts recommending the use of self-hosted WordPress.
Both Wordpress.com and Wordpress.org have embraced an (almost) absolutist philosophy on the right to freedom of speech. The first of Wordpress.org’s ‘four core freedoms’ is the right to run WordPress for any purpose.\(^5\)

Wordpress.com has also expressed a commitment to not limiting freedom of speech in any way; “Our service allows anyone on the web to express their ideas and opinions, whether we agree with them or not — we don’t censor, moderate, or endorse the content of any site we host.”\(^6\)

This is not entirely the case in practice, though, as Wordpress.com goes on to say on the same page that they are “strict about certain behaviours” such as “spam and threats of violence”, both of which are forms of speech. Wordpress.com’s User Guidelines outline a number of other cases in which sites can be taken down, including gambling, impersonation, advertising or pornography.\(^7\) In other words, Wordpress.com does in practice make subjective decisions about which content to allow or not allow on Wordpress.com.

Automattic CEO Matt Mullenweg did express a more nuanced view in an interview in 2021,\(^8\) saying that he thinks of content moderation as a spectrum. Mullwenweg said that the “closer you are to the wire”, such as network providers, the more tech companies should limit their content moderation to simply following the legal requirements. “As you get more on the spectrum where you’re actually distributing things, so it’s not is it allowed to exist but more like is it getting put in everyone’s newsfeed and in front of everyone - I think as you move along that spectrum you get a lot more into the responsibility for the content you’re distributing,” Mullenweg said.

In 2018, the company faced a wave of negative media coverage relating to their service’s use by Sandy Hook conspiracy theorists.\(^9\) This included allegations that the company had threatened legal action against the father of one of the murdered children for trying to use copyright law to remove photos of his child from conspiracy sites.\(^10\) Wordpress.com eventually took down several sites involved in promoting the conspiracy theory that the Sandy Hook shooting was faked.\(^11\) In this instance, Wordpress.com justified the move based on a new policy banning the “malicious publication of unauthorised, identifying images of minors”, rather than the falsity of the content.\(^12\)

From a content moderation perspective, the key difference between Wordpress.com and Wordpress.org is that Wordpress.com has the ability to take sites down. Wordpress.org does not, as sites run on their own hosting providers. Wordpress.org does continue to operate other forms of moderation, such as through vetting themes and plug-ins and offering updates, and this may offer opportunities for other forms of intervention as will be discussed below.

Many far right and white supremacist actors are well aware of the advantages of self-hosted WordPress sites. WordPress is by far the most common recommendation shared by Stormfront users for building sites — including from Gary Lauck, the owner of Zensurfrei, the neo-Nazi hosting provider mentioned above.

An added complication that applies to 29 of the 63 WordPress sites in this study is that they also use Cloudflare, which obscures the site’s true hosting provider. This makes it difficult for anyone to report the sites to the hosting provider for potential illegal content or terms of service violations.
WooCommerce
The majority of sites in this study that sell merchandise used WooCommerce, which, like Wordpress.com, is also owned by Automattic. Merchandise sales make up a significant part of the funding strategy for some far right and white supremacist groups, as ISD has previously demonstrated in our Bankrolling Bigotry report.13

Wordpress.com and WooCommerce’s Terms of Service note that users may not “use Ecommerce Services for any unlawful purposes; in furtherance of illegal activities; or in a manner that is unfair, deceptive, exposes us or customers to unreasonable risks, or does not disclose important terms of a transaction in advance” including “in or for the benefit of a country, organization, entity, or person embargoed or blocked by any government, including those on sanctions lists identified by the United States Office of Foreign Asset Control (OFAC)”.14

None of the groups included in this sample are currently subject to sanctions or other forms of designation. Nevertheless, groups similar in ideology and activities to those included in this sample have recently been designated terrorist organisations, such as the Atomwaffen Division in the UK15 and the Proud Boys in Canada.16 It is well within the realm of possibility that some of the groups within this sample may be designated terrorist organisations at a future date.

If this were to occur, it is unclear what if anything WooCommerce or Automattic would be able to do to stop these actors from using their tools to make money. Recently, the leader of the Goyim Defense League (which the ADL describes as a “small network of virulently antisemitic provocateurs”17) was reportedly selling pro-Hitler, antisemitic and homophobic T-shirts using WooCommerce in order to fund future “political activism”. WooCommerce told the Jewish News of California that “In effect, WooCommerce is similar to software such as Microsoft Word, in that people download and use it independently”, and “our options for addressing these situations are limited”.18
Discussion

While this analysis is based on a small sample, the clear implication that emerges is that far right and white supremacist websites are relying on mainstream tools and services. The desire to use these tools outweighs the misgivings, suspicion and antipathy which qualitative research suggests extremist communities may hold about them and the companies behind them.

There is no indication of a significant alt-tech ecosystem developing outside of social media content-sharing services. It may be unlikely that such an ecosystem ever develops because, as this research has highlighted, there appears to be no pressing need. The combination of open-source tools and hosting providers which either are unlikely to respond to take-down requests, or are obscured by services such as Cloudflare, allows these actors to easily develop slick, professional-looking sites to spread propaganda or generate income, and to remain confident that their sites will stay online.

The frequent use of the open-source version of WordPress in particular raises a number of interesting questions and challenges. WordPress has been clear about the value it places on free speech, and its commitment to allowing its platform to be used for any purpose. There are very real benefits to a pugnacious approach to keeping content online in the face of opposition, in particular when it comes from users in countries with oppressive governments inclined to abuse policies or laws about harmful or illegal speech and behaviour.

On the other hand, however, the volunteers who keep WordPress afloat may have mixed feelings about seeing their time, expertise and creativity being used to put an attractive and professional face on white supremacy – especially those volunteers who are themselves from groups that white supremacists vilify, such as non-white or LGBTQ+ individuals. (The WordPress volunteer group has been actively working to increase its diversity and promote an inclusive community.)

The fact that it is not possible to take down the self-hosted sites poses a challenge to dealing with the continued presence of extremist propaganda on the open web. But it is also an opportunity to move beyond a simplistic leave-up/take-down binary, and to think more creatively about how to respond to the ecosystem of hateful and extremist content. It opens up the challenge of how to deal with extremist propaganda activities online that lie beyond the realm of major social media platforms, which often and understandably dominate discussion about extremist information activities.

One example of an attempt to think laterally about the challenges of balancing free speech and countering violent or harmful content is Nearly Free Speech Network’s (NFSN) Morons Funding the Fight Against Morons policy. NFSN is a hosting provider which is, as the name suggests, strongly in favour of freedom of speech even where they find that speech to be “personally repugnant”. Rather than remove the content, NFSN monitors how much money their company receives from the site or account in question and makes an equal or greater financial donation to an organisation which “does share our values... [and] is as opposite (and hopefully as offensive) as possible to the site operator that funded the donation”. Previous donation recipients include the Southern Poverty Law Centre, the Trevor Project and the American Immigration Council.

This is an interesting effort to break away from the usual content moderation toolkit. Yet it implicitly relies on an assumption that the potential harm caused by supporting extreme or hateful content to reach new...
audiences can be countered, literally dollar for dollar, by donating to organisations which engage in research or counter-speech. Whether this assumption bears out in reality is unclear.

It is notable that this policy does not appear to deter some white supremacists from using NFSN’s services or from recommending it to others. The screenshot below shows the service recommended on a list of pro-white supremacist hosting providers, alongside several others including Zensurfrei.

Another possibility might be some form of community-led response, which could build on the strength of WordPress’s existing, vibrant volunteer community. This would have the advantage of avoiding imposing top-down, restrictive interventions, and could operate on an opt-in basis which would allow creators to have a say in how their work is being used.

Mastodon is an example of how this kind of community-led response can work in the context of open-source tools. Mastodon is a decentralised, open-source social networking platform that allows users to create ‘instances’ which they can choose to be connected to other instances in Mastodon’s ‘fediverse’, or which can operate entirely autonomously (for more on instances see here).22

In early 2017 Vice wrote an article that heralded Mastodon as ‘Twitter without Nazis’ – then Nazis moved in, in the form of the far-right communities on Gab. While Mastodon’s creators were strongly and openly opposed to Gab’s arrival, the nature of Mastodon meant that they were unable to prevent Gab from using it.

This did not mean that the Mastodon community gave up. The high level of control that the platform gives to users over how instances interact led to a war of attrition against Gab, in which the Mastodon community sought to starve the Gab instance of access to the rest of the fediverse. This included blocking Gab’s instance from at least four of Mastodon’s six major mobile apps.26

A key tool in this fight was the Mastodon Server Covenant, which was introduced in May 2019. The Covenant requires servers to agree to a series of conditions, including “active moderation against racism, sexism, homophobia and transphobia”, and in return those servers are able to be listed on Mastodon’s main server.27 This provided a formal basis for excluding not only Gab but also other potentially harmful communities from benefiting from the amplification of being listed by Mastodon’s main server.

As of December 2020, it appears that the Mastodon community’s efforts have been largely successful. By making Mastodon a complex, frustrating, time-consuming and costly experience for Gab users and Gab operators, the Mastodon community seemingly succeeded in driving Gab out.28

The experience of Mastodon is an illustration of how open-source communities can both avoid blocking particular communities and actors outright while not serving as welcoming spaces for extremists.

While WordPress (and other open-source platforms like vBulletin) are of course different platforms and offer different capabilities to their users and volunteer communities, lessons could be drawn from Mastodon’s experience.
One option might be a voluntary, opt-in covenant applied at the level of WordPress themes and/or plugins. Themes and plugins play a huge role in the WordPress ecosystem, in allowing non-technical WordPress users to quickly and easily build beautifully designed sites with a range of capabilities. A voluntary covenant in which creators agree to disallow the use of their work by sites which, for example, promote white supremacy, could support the principle of free speech, insofar that it still allows the use of WordPress by everyone and for any purpose. At the same time, it would enable designers and developers to prevent their work from being used to help promote ideas they find abhorrent. At a large enough scale, an effort along these lines could have a meaningful impact on how comfortable extreme and white supremacist actors are in making their online home on WordPress.

Any such remedy would require the proactive engagement of WordPress and its volunteer community. It would need to arise through a community-led process to establish both what is technically possibly and realistically sustainable. This research is not intended to provide all the answers, but ideally to spark a conversation.

As this research has found, far right and white supremacist actors are currently taking advantage of the decentralised nature of open-source technologies to avoid the crackdowns against hate speech that they have experienced on other platforms. While tackling hate speech on open-source platforms may be challenging, past experience shows that creative, committed communities working together are capable of making a real difference.
References


21. Ibid.


26. Robertson, Adi. ‘How the biggest decentralized social network is dealing with its Nazi problem’, The Verge, 12 July 2019
27. ‘Introducing the Mastodon Server Covenant’, Mastodon, 16 May 2019,
   https://blog.joinmastodon.org/2019/05/introducing-the-mastodon-server-covenant/
28. @isolategab, 12 December 2020, https://archive.is/Dq1zK