

Decentralized Web  
webinar series by



Resource guide

session 04

# Decentralized Social Media



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# Who Controls Your Social Data?

When you use traditional social media platforms such as Instagram, Twitter or Facebook, the personal data and content you share is stored on their privately-owned and centralized servers. By agreeing to their terms of service, you have little control over your own data. It can be sold to third parties for targeted advertising, corporate spying, or worse. Taking your content to another platform is difficult or prohibited. The platforms' algorithms dictate what you see and hear and since they are driven by financial incentives, these algorithms are programmed to emphasize controversy and outrage over civil discourse. With the rise of misinformation spread by social media, some people want the platforms to institute stricter controls and moderation. Others decry this practice as censorship.

# Decentralized Protocols

The goal of decentralizing social media is to alter this balance of power, to give you back control of your own identity and data. It also encourages the emergence of online communities that can establish and function by their own sets of rules. These communities have the power to moderate the type of speech they will tolerate, with control and transparency set by the community.

In his article [Protocols Not Platforms - A Technological Approach to Free Speech](#), Mike Masnick calls for movement away from social media platforms back to the decentralized protocols of the early web:

*Moving to a world where protocols and not proprietary platforms dominate would solve many issues currently facing the internet today. Rather than relying on a few giant platforms to police speech online, there could be widespread competition, in which anyone could design their own interfaces, filters, and additional services, allowing whichever ones work best to succeed, without having to resort to outright censorship for certain voices. It would allow end users to determine their own tolerances for different types of speech but make it much easier for most people to avoid the most problematic speech, without silencing anyone entirely or having the platforms themselves make the decisions about who is allowed to speak.*

Creating decentralized social media may also give rise to new business models that move beyond

monetizing your attention, selling your data, or subjecting you to targeted advertising.

But what is a “decentralized social network?” In her [overview](#) from 2020, Jay Graber explains:

*Calling a network “decentralized” only defines it by what it is not – it is not dependent on a single set of servers run by one company. What it actually is can look like many different things. Federated and peer-to-peer (p2p) protocols are different approaches to designing networks that structurally empower users.*

# Federated Protocols

In a federated network, you are still in a “client-server” model, where you are requesting data stored (usually) on someone else’s server. The difference is that virtually anyone can run a server that connects and operates with other servers in the network. That means two people using different servers can still view each other’s content. Instead of one centralized server network such as Facebook’s, users can choose from a large variety of servers. Email is a federated protocol that works similarly, in that individuals using different email “clients” such as Gmail or Outlook can still communicate with each other easily.

In a federated protocol, people may still choose to delegate the responsibility for maintaining the server and protecting their data to somebody else, but there is potentially more trust between them than with a for-profit corporation. Such networks face moderation challenges of a different kind. In the absence of a central authority, how do you handle problematic content? Most decentralized protocols offer users the option to flag or block any content they deem inappropriate.

Mastodon is a popular Twitter alternative that runs on the federated protocol, ActivityPub. Users can register themselves on any network of their choice, and can access content from users on other networks.

# Peer-to-peer protocols

Federated networks still force us to relinquish control of our data to some degree to another server. In a peer-to-peer or P2P network, each user's computer functions both as a client and a server, both requesting data and responding to requests. Each computer acts as equals or "peers," enabling people to communicate directly with each other. Furthermore, the data and application layers of the protocol are separate. This means that any information is stored locally and is directly transmitted across users' computers without the need for an external server. The data is stored on multiple computers, making it virtually impossible to lose. Users not only consume, but also add resources to the network. Increased autonomy is built into its design, but so is increased responsibility.

Secure Scuttlebutt is a P2P protocol that uses public and private keys to allow users access to it. Manyverse is a social network built on Secure Scuttlebutt, for mobile and desktop.

Matrix runs both a federated and a peer-to-peer network for messaging, that is also end-to-end encrypted.

# Recommended Resources

[Our Social Media is Broken. Is Decentralization the Fix?](#) video & article by Wendy Hanamura, Internet Archive blog, 2020

[Decentralized Social Networks](#), by Jay Graber, 2020

[Blockchain Social Networks](#), by Jay Graber, 2020

[Designing Decentralized Moderation](#), by Jay Graber, 2021

[A Self-Authenticating Social Protocol](#), blog post about Bluesky Web, 2022

## Try it out!

[Manyverse](#) - a social network “without the bad stuff” built on the peer-to-peer [SSB protocol](#), where your data lives on your phone.

[Planetary](#) - new iOS social media browser built on the Secure Scuttlebutt protocol. (Think of the Mozilla Firefox of social media.)

[Bluesky Community](#) - add your thoughts on this public forum on decentralized social media.

[Matrix](#) - a federated, P2P social media platform. (Think Slack but decentralized.)

Fediverse is an ensemble of federated social networks running on free open software on a myriad of servers across the world. These include Mastodon, GNU Social and PeerTube.

Element is a secure decentralized messaging platform, federated or p2p (think WhatsApp or Slack but decentralized) built on Matrix.

# Dive Deeper

Decentralized Ecosystem Review, by Bluesky, 2021

Protocols Not Platforms - A Technological Approach to Free Speech, by Mike Masnick, Knight First Amendment Institute at Columbia University, 2019

Podcast with Evan Henshaw-Plath, Planetary.Social, Initiative for Digital Public Infrastructure, University of Massachusetts, Amherst

Trustnet - Trust-based Moderation Systems, by Alexander Cobleigh, an excerpt from his Masters Thesis, 2020

Decentralizing the Social Web: Can Blockchains Solve Ten Years of Standardization Failure of the Social Web? by Harry Halpin Lecture Notes in Computer Science, 2019

Centralisation is a danger to democracy, by Michał “rysiek” Woźniak, Redecentralize blog, 2021

# Protocols

Matrix is an open standard for secure decentralized real-time communication with simple HTTP APIs. Matrix can be used federated or p2p. The Matrix open network has 55 million users across 85,000 deployments.

Decentralized Social Networking Protocol (DSNP) - whitepaper by Project Liberty, part of Unfinished Lab, 2020.

Scuttlebot forms a global cryptographic social network with its peers. Each user is identified by a public key, and publishes a log of signed messages, which other users follow socially, 2020.

Activity Pub, a federated decentralized social networking protocol based upon the [ActivityStreams] 2.0 data format. It uses APIs for creating, updating and deleting content, as well as a federated server to server API for delivering notifications and content.

# Community Resources

[GetDWeb.net](#) - website of the DWeb Community, a global network of meetup groups working to build a better web, following these [core principles](#)

[Redigest](#) - Monthly newsletter by [Redecentralize.org](#)

[Stories from the Decentralized Web](#) - Medium Channel with event recaps, articles & reposts of fundamentals of the Decentralized Web

[DWeb Community Calendar](#)

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You can find links to other great information resources on the [DWeb website!](#)

# Past and upcoming webinar sessions

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- Jan 27      **The Decentralized Web: An Introduction**  
[Watch the recording](#) →
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- Feb 24      **Using Decentralized Storage to Keep Your  
Materials Safe**  
[Watch the recording](#) →
- 
- Mar 31      **Keeping Your Personal Data Personal: How  
Decentralized Identity Drives Data Privacy**  
[Watch the recording](#) →
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- Apr 28      **Goodbye Facebook, Hello Decentralized  
4 pm EST    Social Media? Can Peer-to-Peer Lead to  
Less Toxic Online Platforms?**  
[Register](#) →
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- May 26      **Decentralized Apps, the Metaverse and  
4 pm EST    the “Next Big Thing”**  
[Register](#) →
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- June 30      **Ethics of the Decentralized Web & Uses  
4 pm EST    for the Law, Journalism and Humanitarian  
Work**  
[Register](#) →