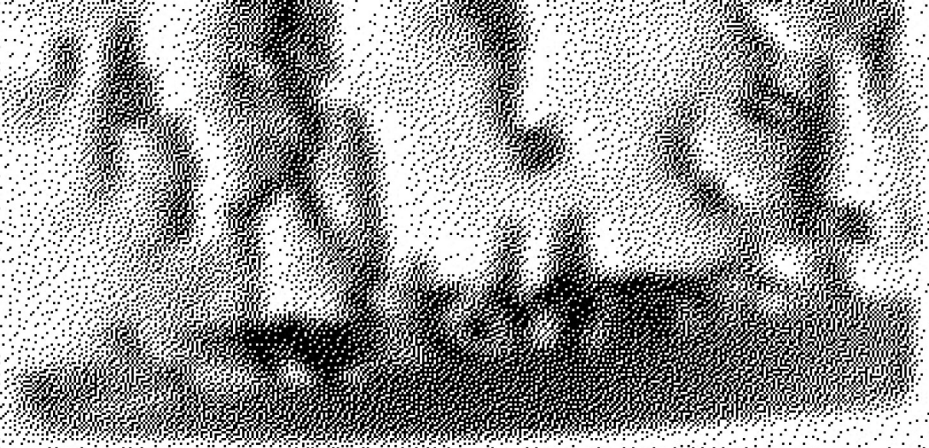


GUIDE TO OPEN-SOURCE PIRATE BROADCASTING

Sources

◊ International Institute of Social History
◊ https://iffr.com/en/iffr/2006/films/paper-tiger-tv
◊ http://future-nonstop.org/c/e16b26b29c7f48f115390ac507917892
◊ https://noemalab.eu/ideas/essay/the-language-of-tactical-media/
◊ http://www.tacticalmediafiles.net/classic/articles/44999/The-Concept-of-Tactical-
◊ https://www.v2.nl/pages/about

Element (Matrix)

You can use this to make sure to have a decentralized, encrypted group chat. You can host your own room/server.

Funkwhale

Funkwhale is a federated, open-source audio platform that lets you share, stream, and curate music, podcasts, and sound archives. Think of it as a community-owned alternative to SoundCloud—without ads, algorithms, or takedowns.

Mobilizon

Mobilizon is a free, open-source platform for organizing events, protests, workshops, and gatherings without relying on Facebook Events or corporate platforms like Meetup. It was built by Framasoft with activist, artistic, and grassroots communities in mind..

Instances to start processing actively

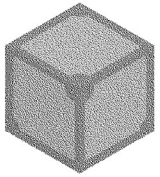
These tools help you collaborate, stay anonymous,
and share your content on your own terms.

Mullvad VPN

This free-to-use VPN will help you dide your IP and encrypt
your connection. Ueful for activism in surveillance-heavy regions.

OnionShare

OnionShare is an open source file sharing application using tor network
to share files, available on most major platforms. It also lets users host
websites and chat in a secure and anonymous manner. It uses pe-
er-to-peer sharing over Tor network to preserve privacy and anonymity.



IPFS Desktop

IPFS Desktop lets you upload and serve files through a peer-to-peer,
uncensorable network. It bundles together an IPFS node, a file mana-
ger, a peer manager, and a content explorer into one application.

INTRODUCTION

Rabotnik TV

Rabotnik TV began in 1982 as a pirate channel on Amsterdam's cable network, using accessible video equipment to produce independent broadcasts. Exploiting a legal oversight that left the cable system open, Rabotnik challenged the traditional top-down model of television with a participatory and experimental approach. Its core philosophy was to democratize television, making it accessible and participatory rather than a top-down, one-way channel controlled by established broadcasters. Rabotnik TV deliberately broke journalistic, artistic, and technical conventions, using a post-punk, dadaist, and modernist approach to challenge what was considered "fit to transmit" and to mystify the medium itself.

Its influence can be seen in community access television, user-generated content platforms, and tactical media used in activist movements like Indymedia, the Arab Spring, and Occupy. Rabotnik anticipated today's remix culture and lo-fi video art, inspiring legal frameworks such as Amsterdam's open channel system. Its legacy of collective, subversive media making continues to shape decentralized, open, and activist-driven media today.

After about a year, the station was closed down by special order of the mayor of Amsterdam due to "seditious tendencies" (in the early 1980s, the city was a virtual battleground between police and squatters). From then on, Rabotnik shifted to radio production. Rabotnik TV became Radio Rabotnik TV, a kind of television without images. The idea arose that the listener should "visualise" the images in his/her own head.

Recoding from Rabotnik TV

EXTRA ADVICES AND TOOLS FOR YOUR BROADCASTING

Tactical Media

Tactical Media emerged roughly between 1993 and 1999 as a loosely defined movement focused on media activism through do-it-yourself practices rather than formal theory. Its naming and conceptual framing occurred mainly through the Next 5 Minutes festival series (1993–2003), where key figures like David Garcia and Geert Lovink articulated its principles in texts such as The ABC of Tactical Media. Tactical Media resists becoming an academic discipline, instead emphasizing practical, nomadic interventions using inexpensive, accessible media tools to challenge mainstream narratives and empower marginalized voices.

The roots of Tactical Media trace back to the late 1960s when radical social movements began exploiting emerging video technology for self-produced media, reshaping media as a tool for subjective expression rather than state propaganda or elite-controlled information. Early community media, such as public access TV in the US and pirate radio in Europe, provided platforms for local and minority voices, aided by technological advances like the camcorder revolution of the 1980s. This enabled “counter-surveillance” and grassroots documentation of social injustices, exemplified by events like the Rodney King case.

By the mid-1990s, cheaper media production and the rise of the internet introduced new opportunities for alternative distribution, enabling more decentralized and interactive communication beyond traditional broadcast’s one-to-many model. Activists began to embrace the idea of “tactical media” as quick, inventive, low-budget interventions that supported political struggles by transforming media consumption into active, collective production. This shift blurred the line between “street” activism and media representation, integrating media as a core part of social movements.

Key moments in this development included the formation of Indymedia in the late 1990s, which aimed to serve as the media arm of the anti-globalization movement by creating a network of local independent media projects. Meanwhile, the Next 5 Minutes festivals connected early internet media activists with public access TV producers, fostering a self-aware tactical media community focused on innovation rather than long-term institutionalization.

Temporary IMC in Edinburgh covering protests
at the 2005 G8 summit

End of Tactical Media

Today, media production technology is more accessible than ever, with affordable devices and user-friendly software enabling individuals and communities worldwide to create high-quality content without significant financial barriers. Distribution, meanwhile, has been professionalized and centralized by commercial platforms like YouTube, Facebook, and Instagram, which offer vast reach and powerful tools for sharing content quickly and efficiently. This accessibility greatly benefits activists and independent creators by providing unprecedented opportunities to amplify their voices and engage diverse audiences globally. However, this commercial control of infrastructure also introduces significant risks, including censorship, content moderation biases, data surveillance, and algorithmic manipulation, which can suppress dissenting voices, restrict access to information, and undermine digital autonomy.

In response to these challenges, politically minded developers, activists, and community organizers are renewing efforts to build alternative, decentralized, and community-driven infrastructures that prioritize user control, privacy, and open access. Networks like the global bricolabs initiative exemplify this shift by fostering collaborative development of generic, modular infrastructures that local communities can adapt and expand to support autonomous media production and distribution. These efforts aim to reduce dependence on commercial platforms, enhance resilience against censorship, and promote solidarity among grassroots media projects worldwide.

While tactical media as a formalized, self-aware movement has waned, its core principles and practices continue to influence contemporary media activism. Autonomous media production remains highly adaptive and innovative, embracing new technologies and social dynamics to sustain vital channels of communication for political struggles. In an era of increasing digital enclosure and surveillance, these grassroots media practices are crucial for preserving freedom of expression, encouraging critical media literacy, and empowering marginalized communities to tell their own stories on their own terms.

Step 10: Create Admin Account

◊ Click “Sign up” at the top right.

◊ Choose a username and password.

◊ After logging in, go to http://localhost/admin to access the Admin Dashboard.

◊ From here you can: enable live streaming, upload videos, set instance rules, change branding.

RTMP Info for OBS:

◊ RTMP Server: rtmp://localhost/live

◊ Stream Key: (get it from your video page)

Step 11: When you're done

◊ To stop the server:

bash

```
docker compose down
```

To restart it later:

bash

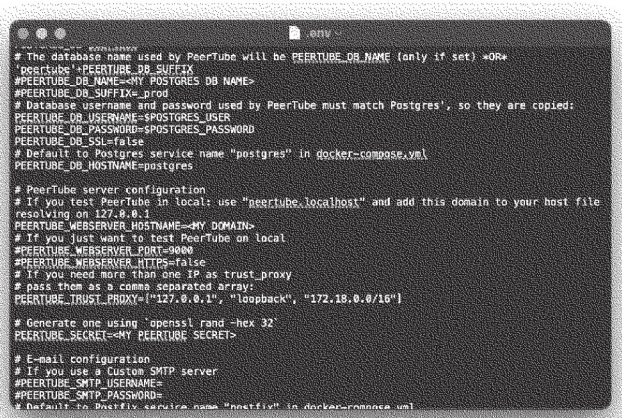
```
docker compose up -d
```

◊ To rebuild it (after changing something major):

bash

```
docker compose build
```

Step 9: Start PeerTube



◊ In the same folder run:

bash

```
docker compose up -d
```

◊ This builds and starts several containers: peertube (main app), postgres (database), redis (cache), webserver (Nginx frontend).

◊ In order to see your PeerTube's homepage go to: http://localhost.

Open-source activism

Throughout the 21st century, open-source communication tools have played a crucial role in helping activists organize protests and circumvent censorship globally. Among these, Signal has emerged as a defining example, especially during the Black Lives Matter (BLM) movement in the United States. Following the murder of George Floyd in Minneapolis in May 2020, widespread protests erupted across the country. With increased concerns about police surveillance, activists and organizers urgently needed secure, private communication channels. Signal, an end-to-end encrypted messaging app, quickly became the tool of choice, experiencing a fivefold increase in downloads during the first week of June 2020.

Activists used Signal to coordinate logistics, share sensitive information, and communicate without fear of interception. The app's security features, including self-destructing messages, offered critical privacy protections during the unrest. Beyond technology, Signal actively supported activist causes; in June 2020, it introduced a feature to blur faces in photos to protect protesters from identification and even distributed face masks to those involved in demonstrations, reinforcing its alignment with the movement's goals.

A notable example comes from Detroit, where two young activists, Ama Russell and Evamelo Oleita, relied on Signal to organize an overnight occupation at a detention center. They emphasized that Signal was "the most important tool for protesting" due to its secure communication capabilities.

Signal's importance extends beyond the United States. In March 2021, during the military coup in Myanmar, the United Nations recommended the use of Signal and Proton Mail for citizens to securely document and share evidence of human rights abuses. Similarly, Signal downloads surged by 1,000% in Hong Kong during the summer of 2020 amidst pro-democracy protests triggered by Beijing's controversial national security law. In each of these cases, Signal has proven essential for activists worldwide, offering a reliable and secure platform for organizing dissent and protecting privacy in the face of repression.

Grafitti urging people to use Signal is spray-painted on a wall during a protest on Feb. 1, 2020, in Berkeley, California, Elijah Nouvelage.

Step 8: Install Docker

Linux (Debian/Ubuntu):

bash

```
sudo apt install docker.io docker-compose
```

macOS: Use Docker Desktop. ----------→

Step 8: Install Docker

◊ Open Terminal and Clone the Repository:

bash

```
git clone https://github.com/Chocobozzz/PeerTube.git
cd PeerTube/support/docker/production
```

◊ Copy and Edit Environment File:

bash

```
cp .env.sample .env
open .env
```

◊ Now edit the .env file in your default editor
by changing the following key lines:

dotenv

```
PEERTUBE_WEBSERVER_HOSTNAME=localhost
PEERTUBE_ADMIN_EMAIL=your@email.com
PEERTUBE_SMTP_USERNAME=fake
PEERTUBE_SMTP_PASSWORD=fake
```

How can I do things independent?

This is an additional step-by-step roadmap to help you build and operate your own autonomous media node. Since it's more advanced, I recommend attempting this only if you have a basic understanding of coding. If you prefer not to rely on anyone else's rules or uptime, you can host your own PeerTube instance on a rented server (VPS), a Raspberry Pi, or a local computer.

◊ Full control of video content.

◊ The ability to federate (or not) with other instances.

◊ Custom moderation policies.

◊ Livestreaming capabilities.

Required material

◊ A computer with at least 2GB RAM.

◊ Some command line comfort.

◊ Docker & Docker Compose.

◊ A PeerTube Docker image.

◊ (Optional) A public IP or domain name (for external access).

STEP-BY-STEP GUIDE ON HOW TO CREATE A DE-CENTRALIZED BROADCASTING

Open-Source Broadcasting Guide

Most content we consume comes from corporate-owned platforms like YouTube, TikTok, and Instagram—where visibility, censorship, and bans are dictated by algorithms and profit. This limits media activism and independent voices.

Open-source tools offer a way out: they let us create and share media freely, without surveillance or corporate control. Using them is not just practical—it's political.

This guide shows you how to build your own independent broadcast using decentralized, open-source tools.

Needed Materials

◊ A regular laptop or desktop computer.

◊ A regularwebcam or smartphone camera.

Needed Softwares

OBS Studio (Open Broadcaster Software)

OBS Studio is a free, open-source tool used by livestreamers, educators, gamers, and activists. Unlike Instagram Live or Twitch, it gives you full control over your stream — no algorithms, no ads, and no risk of takedown.

PeerTube

PeerTube is an open-source, decentralized alternative to YouTube. Instead of one central server, it's powered by many small, community-run servers (called instances). It's part of the Fediverse—a network of interconnected platforms like Mastodon (Twitter alternative) and Pixelfed (Instagram alternative)—all independent, interoperable, and not owned by corporations.

BE COMPLETELY INDIPENDENT AND CREATE YOUR OWN MEDIA NODE

Step 6: Set the Streaming Parameters

◊ Go to Settings (bottom-right corner).

◊ Click the Stream tab.

◊ Service ---> choose Custom.

◊ Server ---> Paste the RTMP URL from PeerTube.

◊ Stream Key ---> Paste your Stream Key.

◊ Click Apply, then OK.

Step 7: Go Live!

You're ready to broadcast your first show!

◊ Double-check your video and audio are working in OBS.

◊ Click the "Start Streaming" button in the bottom-right corner of OBS.

◊ Go to your PeerTube account and visit your Live page—you should see your stream start within 5 to 15 seconds.

DOWNLOAD AND FIX OBS STUDIO'S SETTINGS

Step 1:
Install OBS Studio

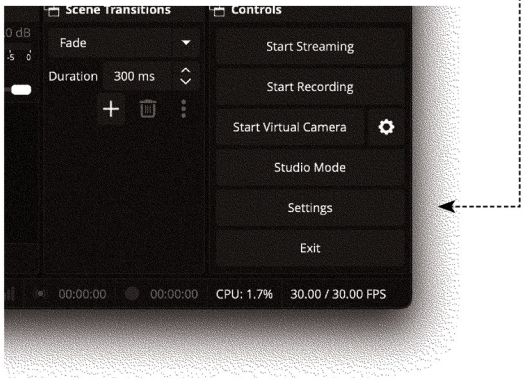
You can download it here

- You can choose your Operative System and then the download will start.
- Install the App.
- On first launch, click “Cancel” or “Skip Setup Wizard” when prompted.

SET UP STREAMING TO PEERTUBE

Step 2: Settings

Go to settings



Video Tab

- For Base (Canvas) Resolution you can use 1280x720 or 1920x1080, as 720p is fine for most; 1080p if internet is good.
- Output (Scaled) Resolution should be kept the same as base, this keeps the video sharp.
- Common FPS Values 30 fps is good for art and workshops. Use 60 fps only for fast motion.

Output Tab → Streaming

- Put output mode to Simple.
- Video Bitrate: 2500 - 3500 for 720p / 4500 - 6000 for 1080p.
- Encoder: Software (x264) or Hardware (if available).
- Audio Bitrate 128 kbps (fine for voice)

Audio Tab

- Sample rate: 44.1 kHz (default is fine)
- Set Mic/Auxiliary to your microphone (USB mic or built-in)

Step 3:
Webcam and Audio

Add Webcam

On the main screen press the + under Sources

◊ Choose Video Capture Device
and name it Camera.

◊ Select your webcam from the list.

◊ Resize/fit it to the preview screen.

Add microphone

◊ Clic + and then Audio Input Capture.

◊ Choose your microphone.

For overlays and graphics

◊ Clic + and then Image or Text.

◊ Drag and resize freely.

Step 4:
Create your account

Once you chosed your preferred instance,
then you can move on to Signing up to Peertube.

◊ Go to a PeerTube instance.

◊ Click Sign Up (some need approval, some are open).

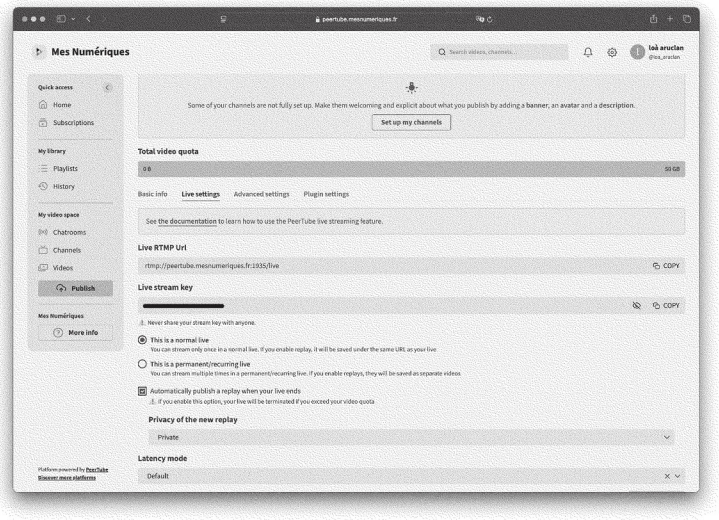
◊ Create your channel.

◊ Verify your Mail.

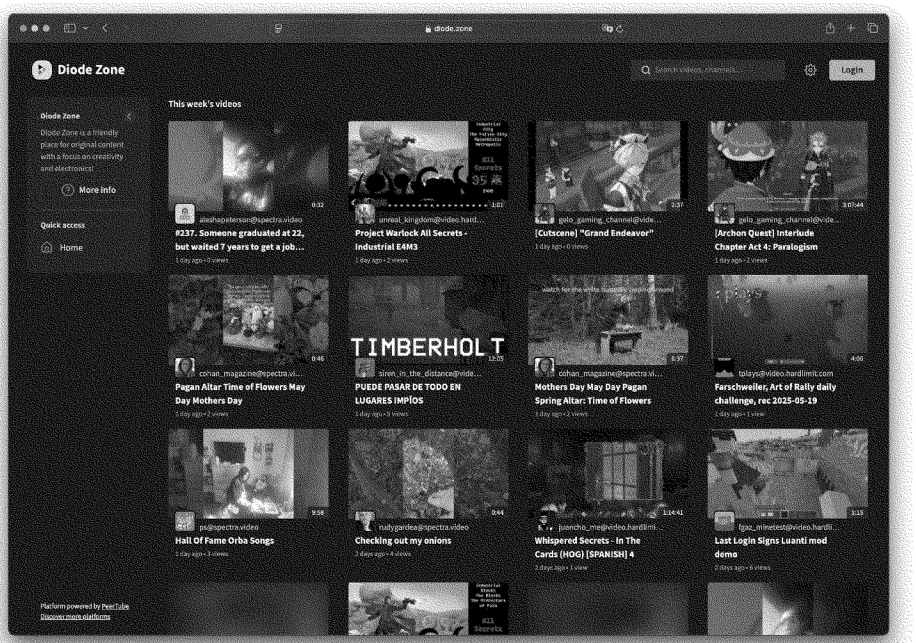
◊ Log in again.

Step 5:
Get your stream key

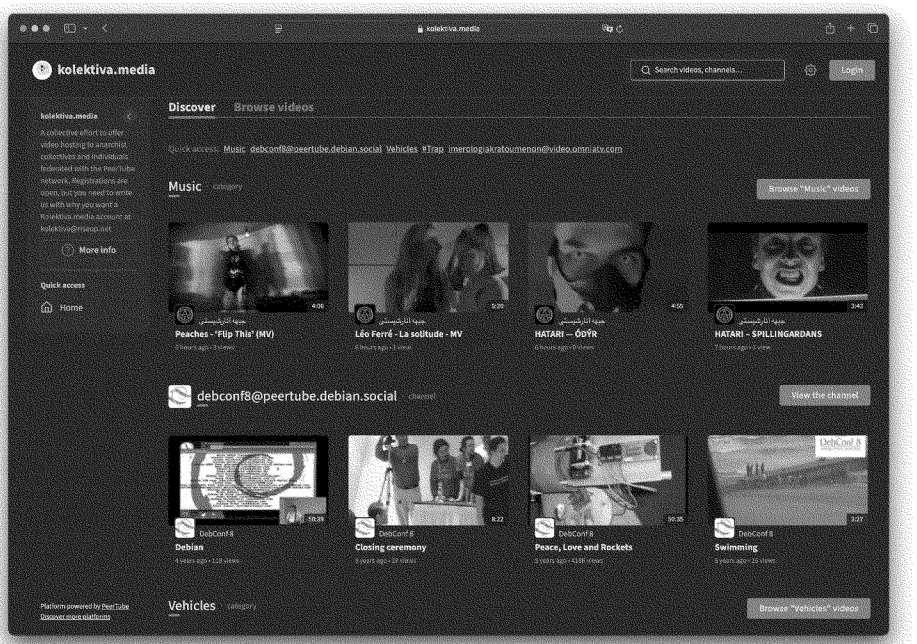
Once logged in, go to the left side of the screen
you can clik the button “publish”



Then you should click Go live and select Normal Live. Now you
can access Live settings with the RTMP URL and Live stream key.



Diode.Zone front page



Kolektiva.media front page

SET UP STREAMING TO PEERTUBE

What is a Peertube instance?

A PeerTube instance is like a home base or community-run YouTube clone. It's a server run by a group, organization, or individual using the open-source PeerTube software.

Instead of one giant platform (like YouTube), PeerTube is a network of independent servers that talk to each other. This is called federation — and it's the same idea behind Mastodon (social media) or Matrix (chat).

Each instance has its own:

◊ Admins (who moderate content and approve users)

◊ Rules or focus (e.g., art, activism, education)

◊ Community vibe (some are more political, others educational, etc.)

Why do I have to sign up?

Before you can stream, you need a place to host your content — just like you need a YouTube account to post there.

How?

First thing you want to do when using PeerTube is then to choose an instance and create an account. Once you do that, you get access to:

◊ Your own channel

◊ Video uploads

◊ Live streaming options

◊ A dashboard where you can configure and manage your stream

Instances to start broadcasting actively

Kolektiva.media

Is focused on activism, radical politics and protest coverage and can be used for streaming political events, anti-capitalist video essays, organizing media. The instance is Administered by activist collectives, is in a federation with radical Mastodon servers and is Censorship-resistant (no takedowns for political content).

Diode.zone

Is focused in Creative media, indie video artists, left-field aesthetics. Why should you use it? It's run by artists and hackers and It encourages experimental, anti-commercial and process-based works. The Instance embraces glitch, low-res, slow TV, and media archaeology. This place is Great for performance art, media interventionsm, experimental video journals, reconstructed found footage pieces

Video.blackbird.us

Focuses on Black liberation ad cultural empowerment. Its content are related to decolonial media, poetic documentaries and community radio. Part of the fediverse but rooted in cultural organizing.

Casserole.club

The instance is about experimental cultural media (art + community). It can be used to broadcast hybrid performances, livestream art shows and collaborative AV experiments. Casserole.club Embraces streaming as art, builds on peer-to-peer protocols and advocates for non-commercial art infrastructure.