# Ctrl

# ZINE

**About ^Z**

Ctrl-ZINE (^Z) is a Ctrl-c.club/Smol Web collaborative zine that celebrates tech and the Smol Web. Started in March 2023, it runs a monthly issue, where anyone can download a PDF version and a pre-folded PDF version for home printing. No digital format of the content is maintained on a Website whatsoever. Some of the topics within these issues range from Smol Web protocols and communities (ActivityPub, Tildeverse), Web-adjacent protocols (Gopher, Gemini), alternative forms of communication (HAM radio, IRC), snippets of code, artwork, and anything tech-related that is an expression of self.

Those who contribute to ^Z are passionate about what they share. They want what is best for Us, the citizens of the Web. With that, anyone with that same passion is welcome and encouraged to contribute to future issues. Further info can be found in the Editorial section of this issue. May the Smol Web live forever!

---

**Editorial:**

Ctrl-ZINE

ZINEHEAD Press
Submissions contact: zinehead@fastmail.com
Comments/questions contact: [loghead@ctrl-c.club](mailto:loghead@ctrl-c.club)

**INDEX**

**The Quest For Normalcy** by *~mindhunter*

With each passing day, I find myself increasingly confronted
with valid reasons as to why psychology is an essentially doomed
enterprise. It is evidently quite paradoxical for a student of
psychology to feel this way but what perplexes me even more is
why such a question does not often arise in the minds of
individuals who pursue this discipline. Unlike other endeavours
whose object of study lends itself very well to empirical
scrutiny, psychological inquiry attempts to categorize something
which, by its very nature, resists definition. The workings of
our mind are always veiled by our inclination towards self
analysis, and only reveals itself in its disintegration. This is
perhaps why the phenomenon of mental illness has informed much
of our knowledge regarding the psyche because pathology allows
us to investigate the dark recesses of the human mind which is
always concealed in its functional counterpart.

Freud, for instance, conceived an entire theory of personality
through his attempt to cure patients afflicted with hysteria.
His investigation into the various psychological afflictions of
his clientele created an opportunity where he could peer through
the pretense of our modern tastes and sensibilities only to find
that the mind was still under the sway of primordial instincts.
Notwithstanding the insights such analysis has furnished whose
influence is perhaps yet to be determined, it still suffers from
a grave misconception. The reason a significant part of Freud's
understanding is now subject to disagreement is because his
theoretical premise is derived from an investigation of
pathology. A pathological mind, as much as it reveals all that
which was formerly inexplicable, also distorts our perception of
the very mechanism it renders evident.

Although we have come to liberate ourselves from some of Freud's antiquated ideas, we are still trapped in his old habits. Much like Freud, we still try to understand the psyche and what is 'normal' by investigating what is dysfunctional. I believe introducing the word 'normal' here is by no means a sleight of hand because any inquiry into the human mind is premised upon the inclination to discover some organizing principle which enables us to understand and predict human behaviour. The form of this principle might manifest differently in the lives of individuals but its essence must remain the same. The discovery of this principle, I believe, constitutes the fundamental task of psychology.

However, unlike other disciplines, psychology is mired in the paradox that an individual by definition is an outlier. A person is almost infinitely different in the way he thinks and behaves compared to others. He harbours a myriad of hopes and dreams and is laden with as many personal inadequacies. Such a vagary among individuals obviously makes the task of establishing a true normal utterly impossible because to what standard must the individual be even compared to? Social norms and morals are often a product of their time and could not possibly meet the ever changing circumstances in the life of an individual. Therefore it seems quite reasonable to assume that there are infinite ways to be as long as that way of life does not produce any dysfunction.

Such a negative definition of normalcy, although plausible, still fails to address certain fundamental questions. What is the ultimate purpose of the mind's habitual activity of assimilation and understanding? From where does its relentless need to question, ponder, create and reflect originate? Although tracing the endless chain of causes and effects in explaining behaviour might provide some semblance of understanding, we are

still willfully blind if we choose to ignore the simple question of where such causes and effects ultimately tend towards.

One of the cardinal reasons for the infamous rift between Freud and his most prized disciple, C.G Jung rested on this disagreement. Where Freud stayed content with trying to understand the mind by investigating its antecedent psychological causes, Jung saw the obvious limitation of constricting the psyche to a merely reactionary organism. Jung believed that the psyche was as much constructive as it was reactive in nature and discovered that its inner workings often betrayed the existence of an obscure ideal around which all psychological processes revolved. An obscure ideal, which he termed the Self, that not only subordinated all psychological activity but also weaved together the vagaries of living such activity invariably produced.

None of the aforementioned deliberations suggest the imposition of a particular way of living. Psychological inquiry is often too consumed in navigating the labyrinth of causes and effects that it blatantly refuses to acknowledge that there must be some ideal or principle which gives direction to the sheer breadth of mental functioning. Since the existence of such a principle often calls for ways of thinking which push the boundaries of scientific rigour, we rest content with the assumption that normalcy simply refers to an absence of dysfunction. The desire to arrive at such a conclusion and the reluctance to part from it could be ascribed to the misconception that normalcy, in this context, can only be defined in comparison to the majority. However, the true normal of psychology neither lies in the deafening voice of the majority nor in the eccentric opinions of the minority. It instead lies in that very principle which informs much of what we think and feel. A principle which, instead of defining what is normal through morbidity, evinces what it means to truly live.

**OpenBSD : why and how** by *Derek Sivers*

The only operating system I use on my computers is not Mac, not Windows, and not even Linux. It's OpenBSD, and I love it so much. So I figured I should say a little something about why, and how you can try it.

**It's probably not for you.**

It's not for beginners. Most people should use Ubuntu.

It's not for people who want to click a button and have the computer hide the details from you.

If software bloat doesn't bother you — if every new Mac/Windows/Linux release you say, "Bring on the features! The more the better!" — it's not for you.

But if you're experienced, like to "look under the hood", and prefer software that does the minimum necessary, OpenBSD is for you.

**What is it?**

It's like Linux, but has different goals.

It's known for its focus on security. But, like a well-engineered house will also be earthquake-proof, you don't have to be paranoid about earthquakes to appreciate great construction. To me, the security features are just a side-effect of great coding.

OpenBSD comes with a secure minimal firewall, webserver, mailserver, and an optional graphical desktop. So if all you want is a few of those things, you do the default install, tweak one config file, and you're done.

**Why OpenBSD instead of Linux?**

It's uncompromising. It's not a people-pleaser or vendor-pleaser. Linux is in everything from Android phones to massive supercomputers, so has to include features for all of them. The OpenBSD developers say no to most things. Instead of trying to make it do more, they keep it focused on doing what it does with more security and reliability.

They review and remove code as often as they add. If something is unused, unmaintained, or unnecessary, they'll axe it. If it's unwieldy, they'll make a small simple replacement. For examples, see doas, OpenSMTPD, httpd, and LibreSSL. This is great for security, too. The more code, the more chance of a bug that could compromise your entire computer. The less code, the better. Each new release seems to be getting leaner by removing old cruft. No other operating system does that.

Great documentation is a top priority. The built-in man pages are amazing. So if you're stuck on anything, searching the man pages on your own computer is going to give you a better answer than searching Google. (This makes it nicer to work offline, too.)

The installers are amazing. The initial installation takes like five minutes. Hit [Enter] to the defaults, make your username and password, and it's ready to go. Then the software installer is ideal, too. Just `pkg_info` to search for something and `pkg_add` to install it in seconds. (Which also installs all of its documentation, too.)

Everything is rock-solid and just works. Hardware I couldn't get working in Linux just works on a first try with OpenBSD. And because they don't stay cutting-edge, keeping a cautious pace, it keeps working and doesn't break. The whole system is carefully planned and consistent, instead of a hodge-podge of bits and pieces.

It's all free and run by helpful volunteers. If you searched ports, but some application you need is missing or out of date, just contact the maintainer and offer some assistance or money to help get it updated or added. I've donated $3850 to the developers to help improve the OpenBSD port of Node.js, Elixir, Erlang, Anki, Ledger, and Qutebrowser.

Also see Solene's list of selling points. I agree with those.
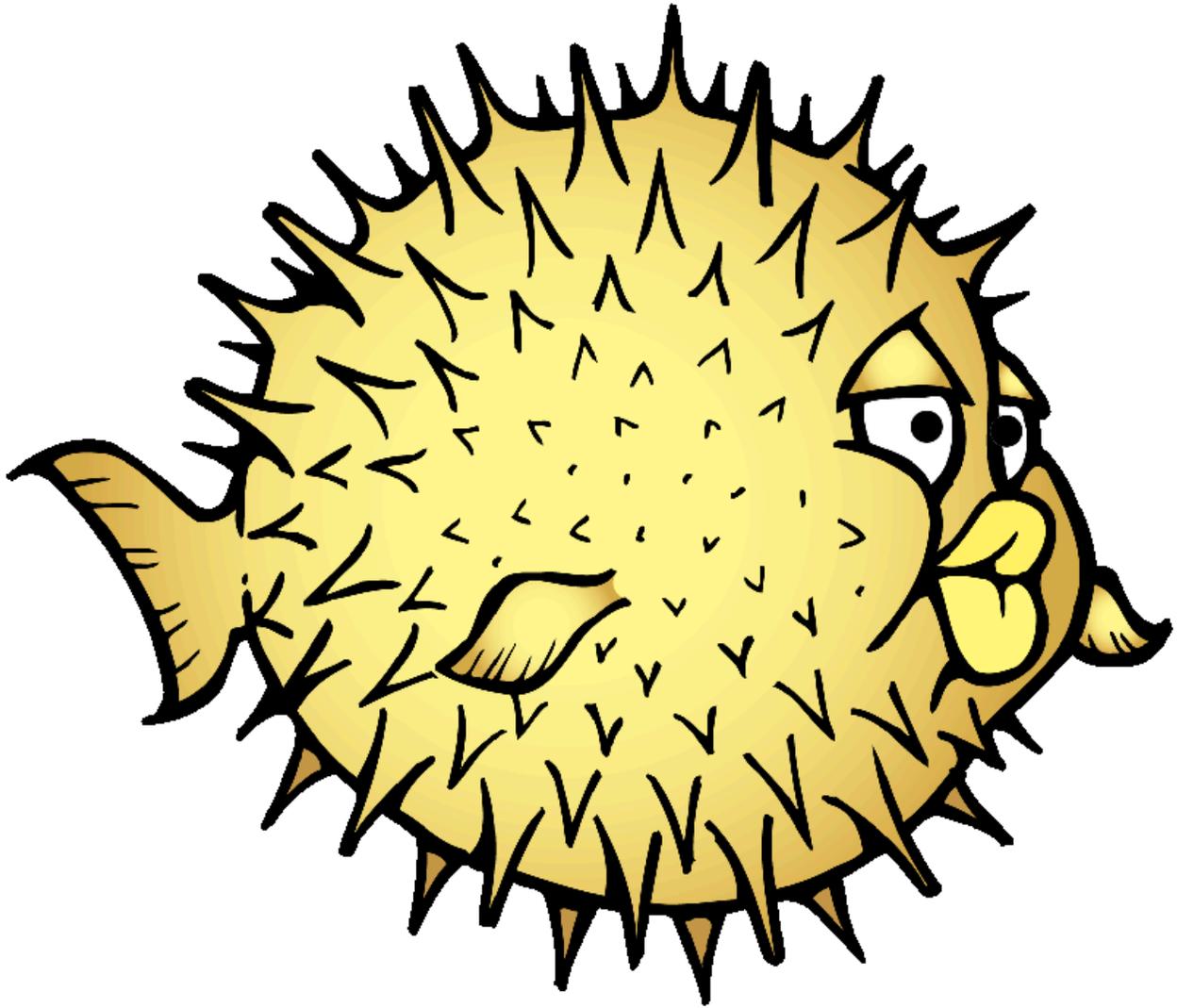
[sive.rs/openbsd](sive.rs/openbsd)

**Micropower radio** by *~lettuce*
2024-03-12

**What is it?**

Micropower radio is a general term for a whole class of
activities of underground radio. As opposed to unlicensed
"pirate" radio stations operating powerful transmitters, larger
stations, and targeting a major metropolitan city for example,
micropower radio is instead concerned with broadcasting to a
niche community that could be as large as a neighborhood or as
small as a campus or city block.

Folks practice micropower for a variety of reasons. It's often
cheaper to purchase or hack together a micro broadcasting
transmitter system. The equipment is usually smaller and
portable. Your investment is therefore less, and you can
activate the station as a test or for a temporary purpose. And
it may or may not be legal in your area, depending on the
wattage as well as other factors.

In college after my roommate first got involved I became a radio
DJ at a small college radio station in Massachussets. I DJed for
four years with a Thursday night program broadcasting
experimental electronic music. I loved the station and had other
friends who were also DJs. I invited a variety of guests on the
air, but also played all kinds of music. One day I went to the
Twisted Village experimental music CD/record/tape shop and there
was someone there browsing for music, and they said they were
looking for albums they had heard on the radio. It had turned
out to be my own program they had listened to. That was really
cool.

About a decade ago I operated my own micropower radio station
that played exclusively experimental music, consisting of slowed

down music and sound art, as well as "chopped and screwed", ambient, new age and experimental classical and electronic work. I DJed and invited other DJs and musicians and producers, who visited the studio and broadcast live. My station could be heard in a portion of my city. I operated with a fairly low wattage transmitter, from up in a church steeple. I had a borrowed radio, and also transmitted live over the internet. My station broadcasted for a while, until the FCC visited me and shut down the transmitter, though I continued to broadcast online.

Micropower radio is a subset of pirate radio concerned with low-power radio broadcasting, usually less than about 100 watts radiated power and sometimes less than 0.1 watt. Micropower radio transmits to a number of recipients ("listeners" or "viewers") that belong to a small local group. Beginning in the early 1990s, there has been an increase in micropower radio because of the desire for such a service in local communities. Micropower radio gives an avenue for small groups and individuals to provide local neighborhood or community broadcasts of information, diverse programming, and entertainment. Micropower radio is usually a non-commercial service. --from Wikipedia, the free encyclopedia, CC BY SA 4.0

My station brought in no money. It was a personal project. I had a community and audience, and a desire to share, and to spark joy.

I knew what I was doing was not quite legal. Despite making sure that I wasn't transmitting on "top" of another station in my city, and even though I was operating at a low transmitter amount, I still knew it wasn't legal to broadcast except with a national FCC license, which is pretty much impossible to achieve. I had read resources like websites and zines from Prometheus Radio, dedicated to supporting low power radio. I could have operated a transmitter below the legal limit, which

would only have allowed me to transmit about as far as a couple blocks, but I decided to go above that limit. What would the worst thing be that could happen?

Well, I did find out. As soon as I got press for my work, I was visited by the FCC and they shut down my transmitter. They had determined I was over the legal limit. I received a warning, which while it did scare me, it did not come with a fine as long as I shut down and kept my transmitter off.

Afterwards, I was involved in at least two more micropower radio stations, but with both of those projects I kept within the legal broadcast limit! For one of these projects I set up a micro power radio station within an art gallery on a college campus. In this case, speakers in the area, and the broadcast booth I set up allowed viewers/attendees to see and hear the live broadcasts. The prominent location on the first floor of a glassed-walled gallery meant that the public walking by could see the broadcast, and could see the listing of the frequency, which could really only be listened to within that city block, or visit the website to listen, or visit in person. This micropower radio station stayed up the length of the exhibition. We used a low power transmitter that was within the legal limit, and we tested its strength! The gallery director did not want to get in trouble.

The second micropower radio station I was involved in was a long running microbroadcast radio station and online radio station called KCHUNG Radio that still operates to this day in Chinatown, Los Angeles. It also pops up on location to broadcast from museums as a form of artist "residency". This station really can only be heard within a few blocks, though there were/are artist studios and art spaces within a couple blocks, so theoretically many folks could be listening through the radio. And because it's in Los Angeles, even though much less

folks own personal radios there could be people driving by listening to their car radio that are able to call in.

For both my personal micro radio station as well as the KCHUNG station there were/are also online chat features, which let the DJ communicate with the listening public, which definitely encourages the broadcasting.

The residency idea of KCHUNG broadcasting live from different live events and art museums definitely helped build an audience, and the freeform volunteer-run station also built community among its many DJs and organizers.

**Why broadcast from a micropower station?**

Broadcast is different from listening to a playlist on a streaming service. It's also different from listening to a major radio station. The broadcasts are personal, non-commercial, and can be totally freeform. Invent your own approach. A radio station of field recordings. Of rebroadcasts of the atmosphere (this was a show on KCHUNG once). An interview show, a joke show, a personal narrative show. It can be any of these things or many more things. In the current streaming and social media era it's something different. A one-to-many medium that can still be personal but different. Communicating with sound is its own thing. It can be inventive. Sound makes space. And broadcasting in the airwaves is a way of extending that space across the city or environment. It is a unique media.

Take note! It's important to remember that despite the advantages of internet streaming, it also has some real disadvantages. One major disadvantage is that while streaming radio is generally cheaper to transmit than "on-air" radio, it's a lot more expensive to receive. Buying a computer and paying for internet service costs a lot more than buying an AM/FM

radio. Also, one of the beautiful things about radio (especially low power radio) is that it is inherently local and is a great tool for building local communities. It's easy to lose your focus on local people and local issues when your stream is available to the entire world. For these reasons, we at Prometheus see internet streaming as a supplement to old-fashioned on-air radio, but not as a replacement for it. --from Prometheus Radio, on Internet Streaming

**How to do it?**

Identify a community and purpose. What's your goal? Where will it be located? What resources do you already have? What will be your identity? It's okay if you don't know all the answers to this. You can treat it as an experiment and find out as you go along. It doesn't need to be a polished thing. In fact, like photocopy zines and DIY punk bands it can be particularly freeing to try out something where you are not an expert but you're going to just go ahead and try it and put your own expression out anyway.

There are many ways to try out micropower radio. There are transmitters to purchase online, even on ebay. You can also re-purpose something like a house radio. These are small transmitters that go in front of a house for sale. They list a FM or AM station that you tune a car radio to and continously broadcast a recorded voiceover about the house you are looking at. You could repurpose this as an extremely local micropower radio station.

Another option is to use a computer with a transmitter, like a low cost Raspberry Pi computer with an added "hat" with an antenna. There are various tutorials and products online.

In all of these cases you'll want to be sure you are aware of your local and country laws, and that you're purchasing and using equipment you are legally allowed to use. Be sure to review your local laws to make sure you're compliant. According to the FCC part 15 laws you are limited to 200 feet broadcast on the FM and AM bands if you are transmitting without an authorized license.

Your next steps will be to plan when you'll broadcast, promote your station, then hook up and operate your radio and transmitter. Flyers, email newsletters, social media announcements can be part of your plan to get the word out. Be sure to let friends know when you'll be broadcasting. You may also want to announce an email address or phone number or other way to contact you when you're broadcasting. You never know who else might be listening and they may want to report back on the broadcast, give you feedback, make a request, or just say "hi."

*[EDITOR'S NOTE: the entry above "Micropower radio" was published in it's entirety with full permission from the author, ~mindhunter - the original entry can be found on their site, https://ctrl-c.club/~lettuce/ as https://ctrl-c.club/~lettuce/micropower-radio.html in the Posts section]*

**My life with source control** by *~nttp*

Seasoned programmers probably know all this already, so bear
with me.

If you've done programming for any length of time, and/or more
seriously than the occasional shell script or web page, you
+might have found yourself in the following situation:

- you're taking snapshots of your work at regular intervals in
the form of dated archives;
- now you want to know what exactly you changed since the last
snapshot;
- or for that matter see the changes between successive
snapshots, and the reasons for those changes.

The better solution is to to use a version control system (VCS
for short), also known as a source code manager (SCM). These
are command-line tools with optional GUI front-ends that can
efficiently store successive revisions of your files, along with
a timestamp and commit message. You can look back, or even go
back, any time you like. You can figure out when a bug crept
in, try different ideas, keep track of work done or collaborate
with other people without breaking stuff.

My new favorite is [Mercurial][]. It's in the repos of most
Linux distributions (and Haiku), and very easy to start with
once installed: simply `cd` to your work directory and enter:

    hg init; hg add; hg commit

At this point Mercurial will prompt you for a commit message –
here's that notion again. Always enter something. Half a line

of text is enough, like "added initial files", but this is how you find your place again. Yep, there's some bureaucracy involved; the main downside of source control. Let's look over some basic notions:

- A "repository" is where your VCS keeps the project history. With most modern systems it's a hidden directory next to your files, in this case called `.hg`. The `init` command creates a new repository, so you only need to give it once.
- Then you have to `add` the files you want tracked (by default all of them). You can change your mind before you commit.
- Every `commit` stores a so-called revision, i.e. all the changes you made since last time. You can see these changes with `hg status` and `hg diff`.
- Use `hg log` to check out the revision history.
- Enter `hg serve`, then point your web browser at `localhost:8000`; now you can click comfortably through your files and
+revisions, or browse the built-in help.

There are many advanced features, but these seven subcommands are enough 80% of the time. Even better, other systems work the
+same way, with small differences. Take [Fossil][] for example:

- Each repository is a single file, kept elsewhere on your drive.
- First `init` a repository, then `open` it in an empty folder, **then** move your files into it and `add` them.
- Use `timeline` instead of "log", and `ui` instead of "serve".

Fossil is a single, small executable that doesn't have to be installed. It has some slick features, but the added bureaucracy pushed me away. Like Mercurial, it's as popular as it's obscure: many projects use Fossil, few talk about that.

Speaking of which: nowadays most people equate source control
with software forges: centralized websites that host
repositories online, such that entire teams can work on the same
project. You've probably heard of behemoths like GitLab or
SourceForge, but cozy little places like [tildegit][] are just
as good. If anyone uses them, anyway.

Just don't let anyone tell you there's only one system you can
use, or one site. For example, talking to some friends about it
revealed that at least two of them use Subversion: a more
traditional alternative, older than most but simpler, that's
still actively developed. And newer systems can talk to it just
fine. In fact they can often read and write each other's
repositories, so you won't be locked in. Choose the one that
works best for you.

I first learned about source control around 2006, and used it
all the time by 2009, but then started slipping and went back to
+my bad old ways for some years. Getting back into the habit
hasn't been easy. But when I caught myself taking snapshots then
wondering what exactly was in them, the writing was on the wall.
Do yourself a favor and try this way of working for a while.

[Mercurial]: https://www.mercurial-scm.org/
[Fossil]: https://fossil-scm.org/
[tildegit]: https://tildegit.org/