

Some thoughts on Fedora on a Yoga

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Dear friends,

We're doing a tech one today -why not. My tech journey over the last year has seen me rapidly disentangle myself from Apple's locked-in ecosystem. Not because the tools weren't doing the job, but because of Apple's increasingly anti-consumer and pro-big-tech moves that tar them with a worse brush than Microsoft. All the while the corporate orifice proclaims saving humanity through privacy measures and Apple Intelligence. An oxymoron to be sure, and privacy "for who?" as your data are sucked up and used to train Apple's AI models. What could possibly be a concern there?

Like other big tech, Apple is interested in vacuuming the internet for content, then integrating deeply into the OS-level to pull out your data to feed its "AI" producing a tool which at best produces something troubling like: "Your mum attempted suicide, but recovered and hiked in Redlands and Palm Springs". The nefarious nature of this vacuuming of human data is what you don't see. Yes, Apple routinely promises on-device processing, data security, and more -but with no way to validate these promises, except through researchers Apple has an existing contractual relationship with... this stretches the trust even thinner. And for a company who has routinely exploited creative sorts, knowledge workers, and intellectuals in order to fund limitless sales while strip mining the periphery ...I just wasn't having it any more. Apple's "values on the tin" were once creativity, difference, possibility, intellect. Now, like every other big tech company they centre exploitation and expropriation of users for the shareholder and Tim's bonus. Disappointing to say the least, and yes I'm aware it's been like this for years.

As I grew interested in making a switch there were a range of things to extricate myself from in Apple's ecosystem. This ecosystem offers, above all else, convenience -pay Apple (twice) and everything is right there, iCloud drive, keychain, mail, contacts and calendars, the works. This suite of privacy essentials is quite similar to what Proton offer as a paid service, indeed Proton seems to be a reasonable direct competitor to iCloud but I wanted to avoid further lock-in by substituting one corp with another [1]. Instead, I've moved from iCloud drive to Nextcloud (currently running on my Synology) so that I control my data, rsync.net for backups of working documents, and Backblaze's B2 for long-term backups of the NAS. My email has long sat with Fastmail, though Migadu and Proton are both interesting options when annual renewal rolls around. I also moved to Bitwarden for passwords and passkeys - which was painless thanks to migration tools, even moving my 2FA and passkeys in a single export-import gesture.

With my extrication from Apple's first-party only tools, I was ready to begin a more robust open source transition. My desktop PC, which I've written about here before [2], has run Linux since I built it in 2020. My web services (including this one, hello) are running on Linux. And I've used Linux on-again-off-again since Red Hat 7. Not RHEL 7, the old Red Hat -and to date still loving Gnome, despite passing interest in Mandrake with KDE back in the day. My desktops and servers have always been Linux first, and while the Mac offered a great deal of productive space for my thinking and work, particularly with its ability to run Office (ugh) and have a productive developer command line through its BSD-like shell, there's never been anything truly stopping a full-time transition to Linux.

Heck, even my institution offers a Linux VPN client (of dubious quality) and with the improvement to both Office on the Web (which seems like where Microsoft is actually heading with the product roadmap) and VirtualBox's solid performance on x86 hosts virtualising Windows to get desktop office, when needed, doesn't feel like a hassle. No, it's

not as nice as first party desktop applications and if there's one hole in my current work it's not having desktop Office for file interoperability with colleagues -for all Libreoffice's trying, it's not keeping up with Microsoft's arcane off-spec Office file changes. Most of my computing life is done in a web browser (anyone not doing this?), occasional programming in C, Ruby, and dabbling with Rust, and Office for work. With Zen replacing Safari, and its brilliant features based atop Firefox, having a very good web browsing experience in Linux is no longer any kind of worry. The only remaining puzzle pieces are a replacement to Final Cut Pro (probably Davinci Resolve) and the Affinity suite (please Canva, give us web versions or a native Linux build) and I'm home and hosed.

Now let's talk exciting parts, OS essentials, and hardware. If you've read my first post here on Linux you'll know I've dabbled with Lenovo machines because of their support for Linux -even if in Australia, you cannot, as a retail or education customer, configure Linux from the factory -and had great success both with old and new ThinkPads. My current daily-driver, though, is almost a deliberate retaliation to Apple's vision of computing: buy an iPhone, iPad, MacBook, iMac, Apple TV, blah blah blah. Rather, I have a 2-in-1 Yoga. The Yoga line is interestingly segmented -and like most of Lenovo's products, deeply confusing. There's the 7i, 9i, 7x, 9x, 7 Pro, 9 Pro, Legion 7, and so on. Is a 7 the entry product then the 9 the mid range? Then what's the 7 Pro? It's worse than Sculley's Apple. In essence the models have no actual relationship. The "Pro" machine will tend to have a discrete GPU, the x usually refers to the Snapdragon CPU, and the i/non-i version is about 2-in-1 configuration. With that deviation here's my machine: The Lenovo Yoga 7 2-in-1 14IML9. Mine is configured to the highest settings available: 32 GB of DDR5, 2TB of SSD, WiFi 7, a Core Ultra 155H and Arc graphics, and an absolutely wonderful 2.8k (perfect retina 2x) OLED display with HDR500. Two of those specs are post-market upgrades, what a concept -upgrading your own device.

When I got this machine I ran Windows 11 on it for a few days -using the wonderful tools on the internet to upgrade from Windows Home to Windows Pro (because who is paying Microsoft \$100 for that garbage?). It sucked. I gave it my all, I synced all my files, setup my accounts, even used Outlook for a bit. The persistently user-hostile experience, even in Windows Pro of having ads in the start menu, not being able to quickly search files without getting Bing-first results, having absolutely no developer tooling (please don't suggest VS Code and PowersHELL is developer tooling)...It is a quantitatively worse experience than MacOS on every front, and one equally imbued with privacy invasion, "copilot" (which I cannot seem to see adding any value, and the copilot key on my laptop is irritatingly mapped to "left shift" under Linux??) and proliferation of absolutely unintelligible UI choices made Windows feel actively hostile. I didn't get into this to go from privacy invasion + usability to privacy invasion + hostility. And I didn't really want to use Windows anyway, it was just an early experiment to see how things had changed -my last time with Windows seriously as a daily driver was Windows XP so it was worth a brief experiment, right? ... no.

On my eBay ThinkPad, I'd been using Debian -the same OS I used on my servers and desktop. I'd used Ubuntu briefly simply because it offered an out-of-tree kernel module that laptop needed for its webcam, but that broke with software updates (not even major version upgrades) and so I went back to ole reliable. But, and I later learned this was my fault anyway, when using Debian Sid I had dug myself into dependency hell in apt, and all I did was install an Australian English dictionary for Libreoffice. Turns out you shouldn't use a third party mirror if you're planning to use Sid -the packagelists don't sync over fast enough and then apt is told by the server to install packages that are outdated, and the trouble only gets worse from there. Naturally, Debian isn't really designed to be bleeding edge, except for those actually developing the operating system. So I went in search of something that enabled those (more) bleeding edge features, i.e., support for the Core Ultra CPU line in my new machine, and played with Arch -I can see why people like it, but the dearth of bundled packaging made me irritated not thankful, OpenSUSE

Tumbleweed -which had some weird install and post-boot issues which I'm sure were my fault, and finally Fedora. Fedora 40, initially, on my ThinkPad provided both the right drivers, and a clean painless install through anaconda (and I can't say there's not a hint of Red Hat 7 nostalgia there). So, when my Yoga came (I still enjoy that my computer and I do Yoga together) I installed Fedora 41 (beta).

Fedora 41 has since "come out" and the upgrade out of the beta into the release version was utterly painless. I'm still adjusting to package naming conventions (particularly -devel) but my brain has adapted to "apt on Debian, dnf on Fedora". The actual OOBE was perfect with Fedora. I had to do a BIOS update on the Yoga before it would let me boot Linux - this was a bug in Lenovo's firmware from the factory that had something to do with secure boot (even when disabling/resetting secure boot for a new install it refused to disengage properly so I just saw a blinking underscore trying to get into grub). After the update, the install was utterly seamless - except for the mandatory mashing of fn+f1 to escape the extremely quick boot sequence. WiFi, audio, power management, display, touch, keyboard and trackpad, it all just worked. Fedora lets you choose file system in the disk partitioner, which advanced mode Debian installers will scoff at, but the ability in the "basic" installer to select btrfs instead of ext4 is wonderful. Just like that I have a working Linux-powered Yoga!

I write to you today from this computer, and I've been doing *work* on it for over a month now -like my actual day job, I can do under Linux. But, coming from an Apple Silicon Mac back to Intel I had a few concerns: battery life, GPU performance, heat. On each count the 155H is worse. But not *much* worse and certainly not a deal-breaker. I can lie to myself and say that its all passable and relatively interchangeable with an M2 Mac, but it's not (quite). Battery lasts about 7 hours writing, browsing the web, doing "light" tasks - power saver and conservation mode really aid this. Even leaving the machine unplugged overnight the battery doesn't dip like it did on older Macs. But it's a far cry from the 13 hours of M2, and let's not mention M3, M4, Pro or Max. Snapdragon CPUs seem to be the PC worlds answer to these processors, but Linux support is practically nonexistent, and the performance improvement over Intel or AMD is not meaningful to be locked into using Windows (I'd still take MacOS over Windows any day). The machine is always "warm" but it doesn't get hot, and the fan only ramps when you do things that you would expect to tax the CPU -and even then it's not that loud, particularly compared to the end-of-era Intel Macs. But with these trade-offs there are a litany of benefits.

Yes, I'm compromising on battery (by about 2-3 hours, but still way more than the 2-3 hours total of years gone -like a meaningful 6-7 hours total), on graphics performance (M2 ekes out about ~7-10fps in most games at around the same resolution scale - but Linux runs way more games), and if I'm honest, probably the trackpad (which is a nice glass-like surface, multi touch, and incredibly responsive, but it's not haptic). But what I gain is both operating system freedom (yes I know about Asahi), a 2-in-1 design which makes playing Civilization VI in bed an absolute dream (sorry to my Steam Deck), and bona fide upgradeability. I have already more than tripled my storage -and with new developments in SSD land I can conceivably go to 8TB in this machine for less than the price of a 256->512 GB bump in Apple land. I also went from a WiFi 6E to WiFi 7 card. I am one of those weirdos with a WiFi 7 router, and the range and speed I get from having WiFi 7 in my laptop is pretty incredible. And this isn't even the most upgradeable PC that Lenovo sells. It's just quantitatively and qualitatively better than Apple -both against price, and honestly performance. If Framework were offering a 2-in-1 I'd be there in a heartbeat. But for now, having an OLED transformable touch screen, a solid 7 hours of battery, a truly wonderful keyboard (except the copilot key, grr), the ability to run any Linux distro under the sun, a decent webcam (don't use it in low light), infrared face-unlock and/or fingerprint-unlock, and an upgradable customisable experience is basically the polar opposite of where Apple's been headed for the last 10 years.

So what, I'm a nerd, and I enjoy computing for the sake of curiosity, productivity, and fun -and I'm having fun with computing again under Linux -something I haven't felt on the Mac for 5 years. If Office on the web becomes *the Office*, which, again, according to the roadmap it will, then there should be nothing stopping most users from a migration to an OS that gives a shit about you as the user -and doesn't try to exfiltrate all your data to FAANGM. Did I mention how damn well Gnome does on a touch screen? How wonderfully designed Gnome Circle apps are (feels like old indy Mac apps all over again)? Newsflash being key for running mind reader. Spotify and Steam (and so so many games that don't even work under Windows work on Linux) work brilliantly out of the box. Zen, Thunderbird, Zed, anything on a command line? It's all a straightforward, "just works", and is an accessible Linux install experience away. Who the hell uses Windows in 2024? Let alone in the future.

The Yoga with Fedora is my primary computing device, I have a desktop still running Debian, and a MacBook Air for things that I haven't yet migrated. I am yet to see any reason to switch back, and things are only getting better. There are so many choices in Linux, and if your distribution of choice does something gross you can just jump over elsewhere. And open-source ethos means you own your data, you can control the code, and you have ultimate flexibility to do what you want with your computing. Not what big tech wants. And that's an ethos I'm invested in, *for good*.

Having fun with computers,

Aidan.

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1. I'm aware that Proton is now an NFP, but at the time it was not, and they were making some concerning closed-source noises.
 2. <https://mndrdr.org/2024/the-power-of-ai>