

Q is to BSD What Latin is to Us

A Theologian's Report of His Trip to Present at BSDCan 2023

BY COREY STEPHAN

As I sit before my battle-worn Think-Pad running OpenBSD 7.3-current on the Air Canada flight from Toronto, Ontario to Houston, Texas to return home to my wife, children, and (ir)regular job as Assistant Professor of Theology and Fellow of the Core at the University of St. Thomas, after my first experience at any conference about computer science or information technology, I feel tired but content. I departed the conference wearing my mustard OpenBSD 7.2-release t-shirt with its Dr. Seuss theme: "One diff, two OKs, commit, blowfish" (a parody of "One fish, two fish, red fish, blue fish"). Realizing that I am once again in the real world in which normal people, sadly, do not (yet?) run BSD operating systems on their laptop computers, I chuckle to myself while musing about the (distantly remote) possibility that my private security screening back at the Ottawa International Airport was not a mere coincidence. After all, this t-shirt represents an operating system whose founder, Theo de Raadt, famously relocated the project from the United States to Canada due to American laws about the export of cryptography.



I jokingly wonder if this might be the first time someone has mistaken me for a hacker (of the malignant variety). If so, have I just endured another rite of passage into the BSD crowd?

As an obvious outsider to BSDCan who made a point of introducing myself to many fellow attendees, I received myriad questions. Oddly, the most common was the most challenging for me to answer: Corey, why are you here? BSDCan regulars were genuinely curious as to what a professional, Catholic theologian was doing at a conference about Unix-like operating systems. Even now, after the conference has ended, I am not sure why I journeyed to Ottawa for BSDCan 2023. Above all, I suppose that I wanted to try something wholly different

from my day-to-day work. For years, I have been an amateur learning about the BSDs from Michael W. Lucas's *Absolute FreeBSD* (3rd edition) and *Absolute OpenBSD* (2nd edition), as well as the online recordings of talks from BSDCan, EuroBSDCon, and AsiaBSDCon (and the Youtube personality RoboNuggie). Although I occasionally engage in simple homelabbing, my main interest in FreeBSD, OpenBSD, and the other BSD operating systems long has been their common utility as fully customizable, desktop operating systems. Specifically, I like to use FreeBSD and OpenBSD to aid my multisource research and writing as a scholar of the history of Christian theology. My October 2021 FreeBSD Friday lecture "FreeBSD for the Writing Scholar" was about that very theme, as was my talk at BSDCan, "BSD for Researching, Writing, and Teaching in the Liberal Arts."

At a standard academic conference, dressing the part of the refined scholar is important, especially in our anti-intellectual, twenty-first century Western context in which, say, one English literature job posting attracting hundreds of Ph.D.-holding, qualified (and desperate) applicants has become the norm. While packing to present at BSDCan, I almost instinctively grabbed my tailored navy-blue suit with my favorite golden bow tie. By Providence, I had the wherewithal to write a short email to Dan Langille, one of the founders of BSDCan who coordinated the conference for twenty years before announcing his well-earned retirement from that duty during this year's closing session, to check how attendees and presenters typically dress. His reply was that he would be wearing cargo shorts and a t-shirt through the whole conference, and I recalled that I had watched several BSD(Can/Con) video recordings in which the speakers were dressed in kind (Theo de Raadt in shorts and sandals, Michael Lucas in t-shirts with cartoonish figures of horror, and so on). Recognizing that I would be laughably out of place if I were to continue with my first sartorial selection but being unable to bring myself to deliver a formal presentation without a shirt and tie, I compromised by packing one set of my standard university (teaching and meeting) attire (in this case, purple pants and a purple bow tie with grey suede shoes — no jacket). Even with that change, Michael Lucas told me after my talk that I was "the best dressed ... speaker that we ever have had." I also made sure to have my full collection of BSD shirts with me to wear for the rest of the conference, that is, my FreeBSD polo shirt that was a gift from the FreeBSD Foundation when I presented for FreeBSD Friday, the Seussical OpenBSD t-shirt that I was wearing as I began drafting this report, and a few old-stock-but-new OpenBSD t-shirts that were given to me by a generous Unix greybeard who wishes to remain anonymous.

After presenting at many academic conferences on the topics of theology and/or early to medieval Church history over the years, I had grown accustomed to a certain set of cultural and behavioral expectations about conferences that were in no way applicable to BSDCan. Starting with the rather silly point of dress, BSDCan presented me with a seemingly

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unending series of opportunities to think freshly. Indeed, if creativity is found at the intersection of apparently disconnected subjects, then I am pleased to report that I had several engaging discussions at BSDCan that were themselves loci of creative genius. In chronological order, here are three such chats: Michael Lucas of technical authorial fame talked with me about a few possibilities for an educational book project that I

have had in mind for some time; Tom Jones, whose voice I recognized from the BSD.Now podcast that I often enjoy during my long commutes in Houston, suggested that I ought to write this report for the *FreeBSD Journal* (for which he sits on the editorial board); and Dr. Marshall Kirk McKusick, original BSD Unix contributor and (great-)grandfather of FreeBSD who still commits code, explained that the famous Beastie character is a Unix background daemon as imagined by a Disney artist.

To McKusick's story about Beastie, the Unix background daemon, I replied that the overall rationale behind the artistry makes sense. In ancient Greek, I noted, a δαίμων (daemon) refers to a roaming spirit who either helps or hinders humans invisibly (in the background, like a Unix daemon). Since a daemon might either be benevolent or malevolent, but the Devil of the Christian tradition (obviously) is only malevolent, a daemon is not the same as the Devil. I remain unconvinced that Beastie's yellow pitchfork and red horns, inevitably offensive to some, are necessary, since ancient daemons rarely were depicted in artwork — and certainly never as such. That matter, however, seems best left alone until the next time that I chat with the ever-smiling McKusick. Besides, I cannot blame a gifted Disney animator for lacking familiarity with Greco-Roman folklore, and I rather enjoy the medieval character that graces (or curses) FreeBSD communication zones to this day.

Speaking of McKusick, on my first night at BSDCan (Wednesday), I stumbled into the end-of-day hackathon portion of the FreeBSD Developer's Conference. I was impressed to observe McKusick collaboratively coding with someone who must have been at least forty years younger than he. The spirit of working to keep the BSD operating system projects multigenerational ran through the entirety of BSDCan. The oldest, most accomplished participants, who might have had legitimate reasons to ignore neophytes, especially outsiders (as I was), treated me as a worthy discussion partner. During that evening session, a few of us who are husbands and fathers talked about our wives and children, with the discussion flowing naturally between the serious and the amusing before returning to BSD.

I am not ashamed to admit that I did not understand everything in the lectures I attended. Understanding everything never was my objective, nor should it be the objective of anyone attending any conference, be it academic, technical, spiritual, or other. I went to BSD-

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Can in search of a novel exchange of ideas, sharing what I know with persons from outside my normal circles and, more importantly, learning from what such persons know. Although I often was reduced to attempting to intuit requisite background knowledge in real-time, I enjoyed nearly all the talks I attended. I certainly learned something in every session. Bravo, BSDCan's organizational team, for electing a superb cluster of speakers (if I may be allowed to write that as someone who was one of those speakers).

Tom Jones's "Making FreeBSD QUIC" and Marshall Kirk McKusick's "Gunion(8): a new GEOM utility in the FreeBSD Kernel" made Friday, the first day, a joy, since both Jones and McKusick know how to work an audience with what seems to be magical charm. (How, I wonder, does Dr. McKusick make a history of file system minutia almost as intriguing as one of Ken Burns's documentaries about a great American war?) Additionally, recording the 512th episode (not 500th, but 512th, since 512 is the important number in computing) of BSD.Now before a packed auditorium, was a charming idea that the podcasting crew ought to repeat in the future. Shockingly, (the same) Tom Jones proclaimed to the entire conference that he was most looking forward to my talk about BSD and the liberal arts. I have no doubt that his proclamation boosted my session's turnout.

On Saturday, the second day, Philipp Buehler's "Jitsi on OpenBSD - Puffy presents video conferencing" included a daring live demonstration of his working OpenBSD-hosted Jitsi server in which several of my fellow audience members concurrently connected. For that alone, even before he delivered the rest of the stellar talk, Buehler earned my firm applause. The CEOs of leading-edge technological firms as well known as Elon Musk and the late Steve Jobs have embarrassed themselves by attempting to give live demonstrations before large audiences only to have the technologies that they have intended to showcase fail in real-time. Buehler, however, did not strike me as a fool; rather, he was confident enough in his implementation to demonstrate it to the world. Brooks Davis's "Creating a memory-safe workstation with CheriBSD" was about the application of leading-edge technical research from Cambridge University, so understanding it would have required a huge amount of background knowledge that I lacked. Worse, Davis's talk immediately preceded my own. I observed that Davis is a fine presenter with a jolly demeanor, but I must humbly admit that almost all his talk entered one of my ears and escaped the other while I anxiously awaited my slot.

Finally, my time came. Tom Jones had primed the rest of the conference attendees for me the day before, so the decently sized, University of Ottawa classroom in which I had been assigned to present was bustling. All morning, I had observed the weary faces that are

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typical of the second day of every conference that I have attended, perhaps made worse at BSDCan because the conference organizers encouraged folks to visit a pub for local brews and then stay awake until (if not past) midnight collaboratively hacking. While I am neither



a drinker nor a hacker, I appreciate that the bleary eyes that filled the conference halls and rooms on the second day were those of men and women who passed the night in lighthearted comradery while building a better technological future for us all. Yet, perhaps because I was standing at the front of a university classroom, wearing my normal teaching attire, I immediately snapped into my workplace modus operandi as a whimsical assistant professor of the traditional liberal arts. The room lacked the vitality that I need-

ed to succeed as an oddball. Accordingly, I called upon everyone in the room to rise, greet her or his neighbor, and say, "It is a blessing to be sitting next to you today."

My use of a classic professorial trick seems to have succeeded. The audience members' reactions to my talk were loud, energetic, and wonderful from start to finish. One of the crowd's favorite moments in my talk was when I pointed to the recording camera in the back of the room and addressed my colleagues with this original line: "C is to BSD what Latin is to us."

The Question-and-Answer session for my talk went over time, with Dr. McKusick himself asking several questions. The hallway discussions afterward were engaging. Overall, my talk's warm reception elated me.

Without an obvious way to conclude this report, I will write two things. First, if you are interested in the BSD operating systems but nervous about BSDCan, do not be. While the conference's regulars form a self-selected, tightly knit group, they are genuinely welcoming, and it does not take long for newcomers to start to assimilate into that group. Further, there is no shortage of entertainment at BSDCan (the charity auction is hilarious), and the talks are scheduled so that no one part of the conference becomes painful. Second, I hope to return to interact with everyone I met at BSDCan 2023 again at BSDCan 2024 — and to present something even more daring.

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Photos courtesy of Tom Jones.