# Down Time

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# Sunday

I was slightly surprised to realize that I've sent out twenty issues of my little newsletter so far, totalling (very roughly) about 110,000 words. As usual the minutes, hours, and days tend to go by slowly but the weeks, months, and years go by quickly!

This week's installment will be pretty short — probably the shortest one to date, unless I get an unexpected burst of inspiration.

I'm calling this week's newsletter "down time" because unfortunately I didn't even get to fully recover from one illness before being hit by another one. I've had another sort of upper-respiratory *thing*, this one likely a sinus infection. One kid, Elanor, seems to have it too, as does Joy, but it seems like most of the rest of us were spared.

The work week started out with some difficulty, as Monday morning Grace had not yet returned from her road trip, and I still could not get the car un-stuck. So I arranged by text message and e-mail to work from home for part of the day. Fortunately it was sunny, though, and by mid-afternoon the sun had warmed up the ice in the driveway, and a small army consisting of our housemate Joy and several kids worked away at it with salt and shovels and were able to break up and remove most of it. So I was able to drive in late in the day.

At work this week, construction was continuing. I have my own office with a door now, so I made use of it while the power tools and banging and crashing continued all around me.

Between the noise, a mild fever, a cough, and a general wiped-out feeling, it wasn't the most productive work week I've ever experienced, but I did manage to get a few useful things done.

On Tuesday I had an eye exam. A few years ago I had a little scare when a small part of my visual field went wonky and distored, like a looking through a warp in a pane of glass. It turned out I had blown a little blood vessel in the back of my eye, resulting in a "cotton wool spot." That led to the discovery that my blood pressure was creeping up, so I've been on blood pressure medication

since then, and it seems to be doing its job. I've been following up with an opthalmologist every year. He confirmed that while this kind of damage doesn't really ever completely heal, there's no sign of any new damage. So that's good.

It is strange, though; my blood pressure was elevated, but not dangerously so. It didn't seem like it could have been high enough to result in that kind of damage. My guess is that there is likely another genetic component at work here. My mother's mother had similar problems with leaking blood vessels, accumulating enough damage over the years that by the time she died at the age of 102, she could barely see at all. So there's a chance I have that to look forward to, if I live long enough.

My ophthalmologist has office hours just a few hundred yards from my office, which is very convenient. So even after having my pupils dilated by drops, I was able to put on sunglasses and drive (carefully) back to my office. But the drops take several hours to wear off. So I spent a good chunk of my afternoon in my office, with the overhead lights off and the blinds drawn, wearing sunglasses, trying to read my computer screen. So on Tuesday I couldn't really get any momentum until about six. But once I get my head into a piece of code, I don't want to stop until I'm done with it. So I didn't leave until close to midnight.

On Friday, I discovered to my dismay that a software update for a whole product line that I wrote, tested, and released the week week before last was bad — somehow, it disabled remote control. This was a confusing problem to debug. The code change was very small — only a few lines changed in a single file. It took me a while to figure out that what had changed was the compiler version. At the start of 2020, I had installed an update to bring my development tools up to the latest version. This change to the compiler resulted in the disabled feature.

Dealing with compiler bugs is always a tricky thing. It might be a real compiler bug, such that perfectly good C code is now compiled to broken machine code. Or it could be a change that simply exposes an issue in my code that I wasn't aware of. Trying to figure this kind of problem out might require very close examination of disassembled machine code generated by both compiler versions, and poring over hundreds of pages of language specifications. So as much fun as that sounded, I decided to "punt" — I installed a previous version of the compiler and configured the project to it would build with the older compiler.

That will solve the problem for now, and I can continue using the older compiler for the immediate future. I am planning to ditch this compiler, called ARMCC, anyway; in newer projects, I have been using a different compiler based on the LLVM Clang project, called ARMCLANG. I started experimenting with ARMCLANG for this project several years ago. The only reason I hadn't switched is because some critical system headers, as well as FreeRTOS, would not compile properly. But I think both these things work now, so at some point I will probably switch the old project to ARMCLANG.

Anyway, I finally got that all squared away, finished some overdue code and

documentation changes on a new project, and sent out an update to several folks involved in the project. That list includes a team in China. And so I got an automated reply telling me that they will be out all of next week for Chinese New Year. I don't begrudge anyone time off — at all! We all need time off, and generally need more than we get. But I'm left wondering, again, how much of an advantage it really is for American companies to work with Chinese teams, when their biggest annual period of time off work doesn't line up with ours.

But I hope they manage to avoid the new coronavirus outbreak, and also avoid getting stuck due to quarantine.

On Friday night, we had a small celebration to honor Elanor's third birthday! Go, Elanor!

Aside from cooking bacon and hash browns for the family yesterday, and spending a little time in the basement working with Joy to organize some things, I really have spent most of this weekend taking down time. After getting a little extra sleep, it does seem like I'm nearly done with this illness, whatever-it-is. So I am hoping for a better work week.

I don't have much else to talk about this week, except that last night I brought the small monitor screen up from the basement so that we could watch *Shin Godzilla*.

### Shin Godzilla aka Godzilla Resurgence (2016 film)

I had heard good things about this 2016 reboot, and so I was looking forward to watching it, especially since we had all been quite disappointed by the 2014 *Godzilla*. I was not disappointed. *Shin Godzilla* is fascinating, funny, scary, and thought-provoking. I will even say that it is the best and most memorable Godzilla film that I've seen. I haven't seen all of them yet (there are 35, after all), but I'm pretty sure that this is the best since the original *Godzilla* (1954). It also contains many scenes that were crafted in outright homage to scenes in the original.

In this world of 2016, World War II happened, but Godzilla never showed up to attack Tokyo and fight with all his friends, either in reality or in fiction. This is a bit confusing, because Godzilla is now such a part of our culture that I found it a little hard to believe that the film's characters have never heard of him. But they haven't — this is not a sequel to any of the dozens of previous films.

In many of the older films, but not the first, the scenes of human drama behind the big action sequences of monster mayhem are often, unfortunately, really just filler that the audience has to slog through, inserted to pad out the run time. This is done, of course, because monster mayhem costs far more to create, per minute, than bad scenes of officials arguing or scientists speculating.

Shin Godzilla twists this around somewhat, turning the monster movie inside-out, asking us to consider "what if the human story really was the more interesting

story to tell?" In this way it is closer to the very first Godzilla film than to many of its sequels. The drama and story of *Shin Godzilla* centers around the scientists and bureaucrats trying to figure out how to save Japan. And in structuring the film this way, the producers have made a film that is, like the 1954 film, a serious critique and satire of human nature, but in particular, of that peculiar sub-species, *homo bureaucraticus*. Because it is 2016 and not 1954, instead of legal pads and secretaries and projectors and pointers, members of the subspecies *homo bureaucraticus* use laser printers and laptop computers, but still drink gallons of tea.

There's a lot going on in this film — far more than I expected. The editing is terrific. The cinematography is terrific. The dialogue is — well, it's a little hard for me to get a handle on the dialogue, because this film was both subtitled and dubbed. I wanted to watch the subtitled version, so that I could hear the emotional content of the original dialogue, even if I couldn't understand the words without the on-screen translation. But the younger kids can't read that fast, and wanted to watch the dubbed version. So we compromised and watched the dubbed version with subtitles on. The two translations are a bit different, so we were reading one translation while listening to another. Many dubbed films have this problem. It makes it hard to stay engaged with the characters. The next time I watch it, I'll just use the subtitles.

The story is terrific. It suffers from an occasional lapse into unbelievable pseudo-science, but in general it does this a lot less than most science fiction does. So I'll forgive it, because it isn't hard science fiction, and it gets a lot of things just right.

#### The Monster's Arc

The monster, who is the protagonist of this film, shows up in a gradual way. It initially seems as though there is some kind of undersea earthquake or volcanic event. Eventually we see something that looks like a huge tentacle, or tail, emerging from the water. Then the creature comes ashore.

When we first see this film's version of Godzilla, he is laughable — he looks like a kind of giant tadpole with a skin condition. He has enormous, saucer-like googly eyes. He can't seem to control his head. He looks ridiculous, like a demented muppet, and not all that dangerous. It's a far cry from his terrifying night-time reveal in the 1954 film. When we saw him, we were all screaming with laughter, thinking "they can't be serious!"

He gets better, though. It turns out that this monster has the ability to evolve and change his form. Initially a thing that swims underwater, he seems to mutate into something that can crawl up a river, just barely, and then drag his ungainly body along a street.

It seems that any decent weaponry should have been able to kill him dead. But the bureaucrats are slow to catch up with what is happening.



Figure 1: Godzilla in its second form, tadpole-like, with googly eyes, barely able to walk, and leaking fluids, drags itself down a Tokyo street

And as the bureaucracy struggles to keep up with events, he changes again. Soon he's able to knock down buildings, although initially he seems to do it only because he's very, very clumsy. But then he changes again, and starts to look and sound more and more like the Godzilla we know and love, until he has done the unthinkable — made it to downtown Tokyo, where he demonstrates some truly terrifying destructive abilities.

As the story progresses and the situation becomes more and more dire, Deputy Chief Cabinet Secretary Rando Yaguchi gradually emerges from an undistinguished position as yet another bureaucrat in a crowd to a formidable leader. And I realized, after the film was done, that his arc mirrors the development of Godzilla in the story. Originally Yaguchi is a laughingstock, because the believes that the threat comes from a living creature, while everyone else still believes it is some sort of undersea volcano. But Yaguchi evolves alongside Godzilla, from a sort of yes-man larval stage, until at the end of the film he is a different kind of organism — no longer an example of homo bureaucraticus, but of the far more dangerous and charismatic sub-species, homo politicus – that is, the film's true monster. It's fascinating.

Oh, I almost forgot — the music is great, too, borrowing heavily from the score of the 1954 film at times to emphasize its connection to the original, but also borrowing from later Godzilla films, and occasionally introducing brand-new cues.

The scenes of bureaucrats discussion and jockeying for power may tend to make the film a bit boring for kids, although they will no doubt appreciate the epic



Figure 2: Godzilla in its fourth form, upright and huge, its back covered in glowing spines, shoots a white-hot beam of energy from its mouth, destroying a skyscraper

battle scenes. Adults who are craving a story that is a bit more serious and character-driven will, I think, also find a lot to enjoy in this intriguing and funny film that, like all the best satire, is also deadly serious.

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