Wednesday, April 3rd, 2019



Figure 1: Word Cloud

Sidetracked

This post was originally dated March 5th. I've gotten sidetracked several times! I've got to update everything, and I've got to get this done. I get a sort of mental "itch" when I haven't written anything in a long time. It feels like I'm carrying too many incompletely-formed thoughts around, and need to get them into written form, and then they'll be "formed." Maybe I also fear that I'll forget things if I don't write them down.

A lot has been going on. We still have only one working car. A few weeks ago Grace noticed that at the end of a drive home, it smelled a little bit like burning oil. So I opened up the hood, and saw what I thought were some small oil drips. I got it to the dealer, and they replaced some leaking seals. I also had them replace some sway bar links. The car has taken a real beating on Michigan potholes. Living on a dirt road doesn't help matters. It still needs more work, but I had to make the call as to which thing seemed critical to keeping it running, and what I could afford.

Our housemate had her dental surgery. She never could get an appointment with the clinic that would accept Medicaid. That's a long and frustrating story, but at least she's now free of those teeth and the painful and dangerous infections that came along with them.

Elanor's Burns

Elanor climbed up onto our kitchen counter, lay flat on her chest to extend her reach, and pulled over a press pot which was sitting at the back of the counter. Grace had just filled it with boiling water and was still nearby. She managed to get Elanor into the sink immediately and run cool water over her body, but Elanor still had burns all over her chest and forearms. Her diaper caught some of the hot water and probably resulted in a worse burn on her lower abdomen, but served to keep her from getting burns on her genitals (I shudder at the thought).

Grace wound up with some nasty burns on her knee, too, where the near-boiling water ran over the edge of the counter. After cooling her down in the sink, Grace then brought her to me in the bathtub and we got her diaper off and into the tub with me to cool her down some more. We judged that she needed to go the St. Joe's emergency room, but not in an ambulance. So we wrapped her in a loose t-shirt and drove her ourselves. She was definitely not a happy baby, and was screaming the whole way, but we did not have any pain medication on hand that was suitable for a two-year-old.

That led to a whole day spent in two ERs. Because the burned area was large, St. Joe's gave her some pain medication, wrapped her loosely in gauze, and had us take her to the University of Michigan, which has a specialty burn clinic. We had to wait a number of hours there before they actually treated her and sent us home. I took this as a good sign, actually, because it meant that while her injuries were painful, but not really that severe.

Her burns looked pretty horrible, and covered about thirteen percent of her body. There were some patches that were superficial (previously called "first degree,") and patches that were partial-thickness (damaging the dermis to different degrees of severity). None of the burned patches were full-thickness (previously called "third degree"). Over the course of the afternoon, the burns "developed" like instant camera film. Some reddened areas faded after just a short while. Large blistered areas started to form and patches started oozing. The treatment of her burns, when they treated them, was (according to my later reading) well in keeping with modern recommendations for conservative burn treatment. They did not do a lot of scrubbing or debridement. They washed everything very gently with an antibacterial soap, applied a layer of antimicrobial ointment, and wrapped her up with patches of silver-bearing foam, gauze, and gauze mesh. They sent us home with a big bag containing more of all the supplies, and I picked up ibuprofen and acetaminophen so we could alternate them. She slept in our bed with us. She got extra fluids and extra protein shakes and extra cuddles, and a couple of follow-up appointments.

She healed remarkably fast. I may be mis-remembering the dates, but I think at about the two-week mark, she was cleared to have all the dressings taken off. We were told we could bathe her, and they suggested we rub her down three or four times a day with an appropriate lotion (we used shea butter scented). This helped keep everything moist and control the itching. She gradually stopped

needing her pain medication. The jar of shea butter is just about empty. You can still see slight discoloration of the skin in some areas on her chest, and her forearm where the burns were deepest is still a bit rough and red, but the improvement is amazing. The doctor told us there was a good chance that there wouldn't even be any visible scarring at all, long-term, and it seems like he is right, although we were also told it might take as long as a year for the skin to look completely normal again.

The burns on Grace's knee will probably leave permanent scarring.

Of course Grace has beat herself up over this. We habitually take the precautions that parents are supposed to take, to prevent burns: we keep pots on the back burner, with the handles out of reach. Grace put the press pot on the back of the counter. I remind her that this actually made the burns less severe: most of the hot coffee flowed across the granite counter, which sucked away some of its heat before it reached Elanor's body. And Grace was able to immediately get her under cool water, which certainly helped. But one can't help feeling guilty.

I'm grateful for Elanor's extraordinary healing ability, and I'm grateful for good health insurance. But I still have a bunch of medical bill co-pays that add up to several hundred dollars. They sometimes show up months after the actual services they are for. Tracking the individual bills can be extremely complicated. Some are probably "balance billing," and then I have to decide if I am just going to pay them, write letters disputing them, or ignore them. And I hope that none go into collection.

We got our 2018 tax refund. It was quite generous. But, unfortunately, most of it went immediately to pay off some of the aforementioned car repairs, medical bills, and our DTE Energy budget plan annual "settle-up" statement.

We Almost Rented Out the Old House

We had another strange situation unfold with the old house in Saginaw. We were contacted by a family who was interested in renting the house. They had experienced a house fire, and their insurance company was willing to pay for them to live in a rental house for six months or so, while repairs on their house were completed. They are a large family, and there aren't a lot of larger homes for rent in the area — hence, they got our name by word-of-mouth.

We were making arrangements for this to happen. Grace and I had a couple of trips up to Saginaw. We did some cleanup, and took inventory of some minor problems, and had some remaining plumbing issues fixed. We thought it was going to happen. But then we abruptly heard that it wasn't going to happen.

That money would have been a big help.

We still have a guy expressing interest in buying the house, but it isn't clear if he's going to get his financing together anytime soon. So we might try again with another realtor. Maybe the third realtor's the charm. (I think three is my limit; if we can't sell it with a third realtor, somehow, I think we have to consider more drastic options.)

I forgot to mention that we had a viral illness run through our household. It was quite nasty. I wound up missing three days of work. And there's been more chaos, some of which isn't mine to write about. But I'm grateful to be healthy again.

Nerd Stuff: Pandoc and GNU Make

I was looking into what it would take to use GNU **make** to help automate my blogging using **pandoc**. I want to have one directory tree for source, and put build products in a a parallel directory. I'm reminded of how much I dislike **make**. It's surprisingly hard to figure out how to get **make** to track dependencies across directories like this. The standard use case for C programming is to provide a separate makefile (named **Makefile**) in each directory in a source tree and let **make** handle these subdirectories itself. But that seems like a severe overcomplication for this use case. I just want my makefile to apply **pandoc** to all the Markdown files in the source tree, and create a build tree with a parallel structure.

Ideally this would be portable, so that I could build it on MacOS X, Windows, or GNU Linux. I've been trying to make it work with PowerShell. There are some portability problems. The **mkdir** command doesn't support the -p switch on Windows, for example. There are workarounds. But this is just one example of the problems. I know this kind of thing can be done, because a lot of open-source projects build into a separate build directory. But their makefiles tend to be monstrously complicated, and generated by autoconf. That seems like an enormous amount of overkill. I may wind up writing makefiles that just specify each source and destination file. This will result in a long makefile that has to be hand-edited each time I add a file, and that seems stupid, but I keep reminding myself that the purpose of this automation is to save time, not go down endless rabbit holes. Again, I find it so frustrating to realize that the industry-standard tools are so inflexible and user-hostile. This is one of the reasons I started using BBEdit workbooks for everything to do with the podcast: they create a "semi-automated" system, where you can watch each command as it is processed, and see right away what has gone wrong.

Installing Linux on Chromebooks

We have four Chromebooks that we borrowed from an online charter school that four of the kids were attending. It went out of business over a year ago and we still have them. I have been unwilling to set up Google accounts for the kids so that they could use the Chromebook OS, for privacy reasons, so I decided to try to do something else useful with them. I followed some online tutorials which described how to wipe them of the Chrome operating system and install Linux.

This is not for the faint of heart and not without a fair number of problems and bugs. To completely erase the internal memory, you have to open up the laptop and get access to the backside of the motherboard to remove a screw that acts as a jumper. This is a bit tricky and you shouldn't attempt it if you haven't done this kind of thing before. I have opened up quite a few laptops over the years so I was comfortable with it, although laptop parts have gotten progressively smaller and smaller, and more and more fragile, as laptops are made less and less repairable — they are designed to be thrown away, instead of upgraded or repaired. At least they're easier to get into and repair than iPhones.

After removing a lot of screws, you have to use a "spudger" to pry the case open, and it is hard to do this without marring it a bit, and feeling like you are going to crack it. There are a lot of internal ribbon cables and screws to remove as well. It isn't always obvious how to remove them. Some of the connectors aren't really made to plug and unplug and plug repeatedly. There are tiny plastic tabs that are really only designed to snap together once. There are tiny threaded brass inserts set in plastic can strip out if you apply a little bit too much force. I managed to get all four Chromebooks apart and back together with only one minor crack in a case, one stripped insert, one stripped plastic screw hole, and one broken tab on a battery connector. Not too bad, given that I mistakenly took out the wrong screws on two of them and had to open them up a second time. That sounds like I must be very clumsy or careless, but I assure you that I am not; it's just that these things are designed to be cheap, to be assembled once, and not really designed to be upgraded or repaired.

The whole process was very time-consuming. Including research and trial and error, I think it took me twelve hours of work to get all four of them completely wiped and booting up the Gallium Linux distribution, with the software all up-to-date and user accounts configured the way I wanted them to be.

Gotchas

There are still lots of gotchas. On one of them, the mouse pointer keeps freezing up. This is apparently a known bug. The initial version of Gallium had a problem where on two of them, the keyboard wouldn't work. This led me to realize I needed to install the full firmware replacement, which required removing the write protect screws. I had planned to use Firefox, because there is a nice plug-in for Firefox called FoxFilter, which I planned to use for setting them up with unprivileged accounts for the kids, and a password-protected whitelist for accessing web sites. I set up the unprivileged accounts. But Firefox crashes constantly on these boxes, so I had to switch to Chromium. Chromium doesn't support FoxFilter, and in fact has no plug-in support at all. So I'm still scratching my head wondering just how I'm going to do web filtering. I was experimenting with a separate box configured as a proxy server. That was working, but it seems like overkill, and then I have to change the guest network password and try to keep the password away from the kids as well. This is such a pain.

But, for the moment, the kids have four more-or-less working laptops they can use to access Khan Academy, and I've been able to assign them lessons and follow their progress with my parent account. Chromium still crashes with annoying frequency. I can't disable tapping on the trackpads (this worked on two of the four Chromebooks using an older version of Gallium, but that version had the keyboard problem). The laptops keep starting up with Bluetooth turned on, even though I previously turned it off. Et cetera, et cetera, et cetera. The hardware was free, and that's really nice, but it's 2019 and Linux is still only free as in beer if you are fortunate enough to have a really well-supported hardware configuration. And configuring everything is still a maze of twisty little passages, although I'm impressed that people have gotten these locked-down machines liberated as well as they have.

Teckla by Steven Brust

I picked up Steven Brust's *The Book of Jhereg* again, having previously read the first two novels in the volume. *Teckla*, the third, is a more engaging novel than I initially thought. It starts with a literal laundry list — a list of stains to remove and cuts to mend in Vlad's laundry. The laundry list is actually a sort of summary of the events of the novel. Each chapter features a phrase from the laundry list, and the events that cause the stain or cut happens in that chapter. But that's just a minor amusement. The real meat of this novel is the way it digs into the character of Vlad and his relationship with his wife, Cawti. Cawti has joined a group of revolutionaries and before the end of the novel they will be setting up barricades in the streets. Vlad starts out by looking upon their idealism and willing to die for their beliefs with a very jaundiced eye. But gradually, as the plot unfolds and the couple's fight drags on, Vlad seems to do some self-examination, and consider the moral dimension of his career as an assassin and crime boss.

I didn't really like the previous book, *Yendi*, all that much. It had its clever moments but I didn't feel that I could really connect with the elaborate plot involving rival bosses and the complicated back-story. But this story pulled me in, because I can identify with a fight between a couple, and I can identify with the schism that can open up when the members of a couple pursue divergent paths. This novel also gets extra credit for introducing a little more of Vlad's family's back-story, as well as some of the religious beliefs of Dragaera.

I might even go so far as to suggest that if you're reading the Vlad Taltos novels for the first time, you might want to read the first one (*Jhereg*), then skip the second one (*Yendi*), then read *Teckla*. It's also worth noting that the novels don't follow events in in-universe chronological order. I really can't say if it is better to try to read the series in publication order or chronological order. For now I'll stick with publication order. I'll probably order a copy of the second omnibus volume, *The Book of Taltos*, which contains the novels *Taltos* and *Phoenix*, and see how I do with those.

A Borrowed Man by Gene Wolfe

While I was rummaging through books in the basement, I realized that I never actually read Gene Wolfe's novel *A Borrowed Man*, published in 2015. There are rumors of a sequel, but Wolfe is 87 years old, and I suspect that this will be his last published novel.

When reading Wolfe, I always expect to find something off the beaten path, something that is more than it seems at first, even something deceptive and disturbing. This novel is no exception. On the surface, it presents itself as a relatively short and straightforward dystopian science-fiction novel, in which humans can be brought back to life as "reclones" and become library resources; they literally live on giant library shelves in small apartments and can be interviewed or checked out by patrons. They don't have rights. If no one borrows them, they'll eventually be burned. The narrator is such a reclone: he has the memories of a deceased mystery writer. And so of course he becomes embroiled in a detective story featuring a beautiful young lady.

There's a MacGuffin: a single copy of the mystery writer's novel *Murder on Mars*. Our narrator was apparently cloned from the writer after he wrote this novel, and has no memory of it. In fact, it seems like no one knows anything about this novel. And so the conversation turns to how secrets can be hidden in books.

As I was reading this book, I came across some typographical errors that seemed significant (misused homonyms). The recloned writer, who is the in-universe author of this book, it seemed to me, would hardly make such silly mistakes. And so by the middle of the novel I had developed a theory: that our borrowed man himself, playing detective, is a "defective" copy, and the secret he is trying to discover in *Murder on Mars* really lies in his own altered memories.

It turns out that Wolfe doesn't actually take that direction with the novel. Sometimes typos are just typos. In many ways, this novel really does follow the detective novel template, despite incorporating some pretty wild science-fictional elements. This novel is not as much of a puzzle box or kaleidoscope as Wolfe's more complex work; this one is more about mood and tone and dialogue and the unfolding of clues. But that makes it easier to read, and I think it definitely deserves a re-read in the future, too. And it's a good reminder that there are some more Wolfe books I own but haven't read yet, including *The Sorcerer's House* and *The Land Across*.

More Books in Progress

The Science of Interstellar by Kip Thorne

I'm reading several other books now. Too many, in fact. Things have been chaotic and I keep picking up books when I have a little bit of quiet time. I started reading the stories from Haruki Murakami's *Blind Willow, Sleeping Woman*. I dove into Alfred Döblin's *Berlin Alexanderplatz*, translated by Michael

Hofmann. I've been reading that on the treadmill. It's slow going, but pretty fascinating.

I also started reading a non-fiction book called *The Science of Interstellar* by the physicist Kip Thorne. I got this for the kids, because we watched *Interstellar* and they were fascinated with the physics, as was I. But of course I'm reading it in more detail than they are. *Interstellar* is a pretty fascinating movie. One could quibble about the degree to which the plot hangs on things that go well past extrapolations from our current understanding of physics, but I think that these are forgivable, for the sake of storytelling. And after all, it's about the *boundaries* of our understanding. I think it's a reasonable artistic choice to moderate the degree to which the universe beyond our own planet is inhospitable to humans (see Kim Stanley Robinson's *Aurora* for a work that touches heavily on similar themes). *Interstellar* also contains many homages to *2001: A Space Odyssey*. But how could the director of such a science fiction film **not** acknowledge his debt to Kubrick?

I've been fascinated by astrophysics and particle physics for as long as I can remember; I read about them as a child. Reading Kip Thorne's book has taught me that apparently there have been a lot of developments in the theory of black holes since then. Apparently there are now known to be several kinds of singularity; in the book, Thorne refers to "infalling" and "outflying" singularities, as well as the more well-established "BKL" singularity. I was aware of time dilation in gravity wells, but this fictional black hole known as "Gargantua" has particularly interesting properties. This led me down a rabbit hole, reading about "ergospheres," caused by frame dragging, and other amazing ideas. And it seems that some black holes in our own galaxy, such as GRS 1915+105, may be rotating near the theoretical upper limit — that is, the speed of light, which is pretty mind-boggling.

I think it's premature to claim that the movie, or Thorne's book, can convincingly describe the conditions **inside** an event horizon. What goes on inside them may always remain closed to us, even if we go there in fiction. But the relativistic physics are very well-validated, and really fascinating. So I get to talk with the kids about all kinds of neat things like gravitational lensing and the Einstein Crosses — another one was just discovered recently!

The Master and His Emissary: The Divided Brain and the Making of the Western World by Iain McGilchrist

After hearing part of an interview with Iain McGilchrist on an NPR Show called The Hidden Brain, I ordered a copy of McGilchrist's book, The Master and His Emissary: The Divided Brain and the Making of the Western World. I'm still in chapter two, but it appears so far that it may become one of my favorite books, winding up on a list that includes Gödel, Escher, Bach: An Eternal Golden Braid, The Origin of Consciousness in the Breakdown of the Bicameral Mind, and The Society of Mind. McGilchrist's book is a pretty massive tome, though,

and slow-going, and I'm only in chapter two. I've been reading bits of this book to Grace in bed, late, after the kids finally quiet down. It usually puts her to sleep, but that's because reading her just about anything puts her to sleep. But that said, I do think the book is considerably wordier than it needs to be to get its intriguing points across. I suspect that I will not be able to fully agree with the author's broader conclusions about how the divided architecture of the human mind has shaped our art, politics, philosophy, and science — initially, this seems like overreach — but I guess I'll find out if and when I get there.

I've started reading at one more book, the short story collection *The Wall* by Jean-Paul Sartre. I've got no real comments about it yet, although the first story is pretty vivid and fascinating.

Media Discussed

This list does not include books, chapters of books, or other works that I only mentioned briefly in the text above.

- Teckla by Stephen Brust in The Book of Jhereg by Steven Brust (omnibus containing the Vlad Taltos novels Jhereg, Yendi, and Teckla)
- A Borrowed Man by Gene Wolfe
- Berlin Alexanderplatz by Alfred Alfred Döblin, translated by Michael Hofmann (New York Review Books Classics 2018 edition)
- The Science of Interstellar by Kip Thorne
- The Master and His Emissary: The Divided Brain and the Making of the Western World by Iain McGilchrist

Ypsilanti, Michigan Monday, March 4th, 2019

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