

FRIDAY: FUSION

In this roundup: Dakota Access Pipeline news, Hawaiian sovereignty and other indigenous peoples news, the death of space art, and fusion jazz.

It's Friday – time for some jazz. This time it's eastern-western fusion, melding Spanish flamenco and Indian classical music. The embedded video here is a real treat, an entire hour and 13 minute concert featuring Anoushka Shankar on sitar, Melon Jimenes on guitar, and Sandra Carrasco's vocals. My favorite cut is Baleria which begins at 0:42:10 in this video. It feels like the high point of the concert to me, where all the artists are in the same state of flow at this point. I really shouldn't minimize the contributions of the other artists here – Sanjeev Shankar on the shenhai, Pirashanna Thevarajah on several different percussion instruments, and El Pirana on the cajon – all add incredible depth. Sanjeev Shankar's shenhai sounds so human in Traveller; I'd really love to hear El Pirana in other jazz work, will have to hunt down more of his work.

Problematic pipeline

- Militarized law enforcement threatening DAPL protesters after prayer session (Indian Country) – The photos featured in the article at this link don't do justice to the threat from law enforcement.
- Note Twitter user @notaxiwarrior's feed beginning 28-SEP through yesterday showing law enforcement carrying shotguns and automatic

weapons, and in at least one case aiming their weapon at protesters. The thread indicates police used tear gas and flash-bang grenades on a prayer group of mostly women and children. Same thread shows a possible contract agent provocateur who may have been trying to incite the protesters to violence.

- Low-flying aircraft may have dropped chemicals on protesters; 21 arrested (EcoWatch) – It's not clear from videos and photos here and across the internet what one or more planes may have dropped. Some protesters believed Facebook may have halted streaming. At one point in a video police are loading their weapons. Nauseating to watch and listen.
- Oil company CEO thinks jobs, economic opportunity will stop DAPL protests (TelesurTV) – James Volker, CEO of Whiting Petroleum, thinks contracting Native American-owned companies for oil services and water hauling will make the affected tribes happy. White male privilege, much? How

hard is it to understand the pipeline scars lands which never really belonged to whites, desecrating burial grounds and religiously significant sites, while putting land and water at risk of permanent damage? Imagine the outcry if a Chinese- or Saudi-owned company wanted to rip up the battlefield at Gettysburg for an oil pipeline. But Volker said "he was sensitive to Native American concerns over the pipeline and that he 'wouldn't want necessarily a pipeline to go through the cemetery where all my relatives are buried.'" Right. And he'd feel all better about it if somebody offered him a few paltry bucks for his mother's grave.

- Anti-pipeline protest in Vermont culminates in \$500K bank account closure (Times Argus) – At a Mountpelier branch of TD Bank, locals protested both a planned Vermont Gas pipeline and the Dakota Access Pipeline. A TD Bank customer closed her \$500K account because she was disgusted with TD Bank's role financing pipeline

construction.

Other indigenous news

- DOI looks at government-to-government relations with future sovereign Hawaii (NBC) – Protesters are unhappy, however, with the change in U.S. Department of Interior position allowing a Native Hawaiian government. In a nutshell, it's not up to the DOI to tell Native Hawaiians and a sovereign Hawaii how to operate just as no illegal occupying force has a right to define the nation it illegally occupies.
- First Nations' children 'sold' to Americans as recently as 1982 (CBC) – Heartbreaking read; between 1960-1982, indigenous children were taken from their families and 'sold' to adoptive families in the U.s., often labeled as 'special needs' when they were simply First Nations' descendants.
- Interview: Kichwa leader José Fachín on oil and Peru (Guardian) – Fachín discusses a permanent protest underway, fighting against chronic oil pipeline

leaks fouling land and water lived on by Kichwa and other indigenous peoples in Peru. Hard to imagine this persistent assault on indigenous peoples' environment becoming just as embedded here in the U.S. – fossil fuel extraction must stop.

- Wiradjuri/Kamilaroi artist commemorates the loss of indigenous' history in Sydney art installation (Guardian) – Nearly all artifacts of Australia's indigenous peoples were destroyed in 1882 when an exhibition building burnt to the ground. Artist Jonathan Jones marks this epic loss with *barrangal dyara* (skin and bones) constructed from 15,000 gypsum shields marking the outline of the former building site.

Longread: Is 'Space Art' dying?

Interesting read about the history of space art and its impact on science. I wonder, though, whether space art has really been dying, or if it has merely been surpassed by the real beauty of space our current technology has been able to capture? Just browse through NASA's Astronomy Picture of the Day – phenomenal images captured by cameras. Is the real problem space art faces a matter of imagination; are we not encouraging young artists to ponder what's out there we have yet to capture with telescopes, space missions, and cameras?

Week's over, already been tequila thirty here for nearly an hour. Have a nice weekend!

FEEDBACK, PLEASE!

Feedback – you haz it. Tell us about any parts of the new site design you've noticed are missing or aren't working properly.

Leave a note in comments here for follow-up with the developer. Thanks!

Please be sure to indicate what operating system and browser you are using to access the site when you have found something not working as expected. This is really important. However, do NOT provide information beyond this generalized detail (just tell us Windows 7/Firefox or iOS/Safari, for example).

This is NOT an open thread. Please use this for feedback about the site. Thanks again!

THURSDAY: ANOTHER GRUNGEY ANNIVERSARY OBSERVED

In this roundup: Recalling 25 years of Nirvana's Nevermind, petro-pipeline-economic challenges, lead poisoning, anthrax, and cops gone wild.

Hard to believe it was 25 years ago this past weekend when Seattle grunge band Nirvana released its second and best-selling album Nevermind. This particular collection of songs continues to have deep impact on rock, in no small part because it gave voice to social alienation and frustrations of its decade.

Grunge as a genre petered out by the late 1990s, perhaps in response to the impact of Cobain's suicide, the aging of its audience, and the bursting of the dot com bubble. I've wondered, though, if its overwhelmingly white male angst merely went underground, disrupted by 9/11 and redirected toward the war on terror. The grunge generation was the first to be wholly free of the draft, born toward the end of or after the Vietnam War. It had no common goal, no shared sacrifice, at a time when technology became incredibly powerful and a key driver behind economic growth.

Then the dot com bomb, the towers fell, and the grunge generation was forced to look away from its navel, but not toward a positive aim with measurable success defined by concrete benchmarks. It was offered an identity defined by negatives: not 'radical Muslim', not 'Old Europe', not anything apart from with-Bush/Cheney because it wasn't popular to be against them for the sub-40-year-old crowd.

Now that +20 years have passed, how are the grunge generation defined?

UPDATE 9:30 AM EDT — News worth updating and inserting higher in post: Congress avoided a government shutdown while simultaneously funding Flint, Michigan's water system aid as well as Zika virus response. The amount allocated for Flint will be somewhere between \$170 million (House) and \$220 (Senate). It's not anywhere near the amount needed for complete removal of damaged water mains and lead piping, but it's a good start. Snappy synopsis here.

See also this particularly offensive POS from a hotel and tourism advocate in Puerto Rico, published before the deal. Too bad Mr. Miguel Vega will never have to actually carry a Zika infected fetus; his hand wringing over Zika fear is a perfect example of male privilege, applied on behalf of his employers. The real problem with Zika response has always been a lack of knowledge about the virus as well as inadequate concern for the welfare of citizens — not fear.

/end update

Fossil Feud

All related to oil, all equally distressing.

- OPEC to cut oil output (Bloomberg) – The move supports the Saudis' need for more cash. Russia will tweak its output levels after OPEC has finished setting a firmer level, though it pumped a record amount in September, tripling August's daily output.
- Iran's oil minister described as 'happy' (Bloomberg via Twitter) – Bijan Zanganeh's reaction as the OPEC conference in Algiers ended Wednesday.
- Congress overrode Obama's veto of 9/11 bill (Insurance Journal) – In spite of the White House's effort to kill The Justice Against Sponsors of Terrorism Act (JASTA), the bill will become law after today's rare override. The bill allows 9/11 victims and their families to sue Saudi Arabia for damages. Passage of the bill may cause the Saudis to delay sales of \$10 billion of an international 'megabond' as investors could be put off

by risks to RSA from lawsuits. But if oil prices go up due to production cuts, the bonds may not be as critical to RSA's plans.

- Reps. Grijalva and Ruiz say Dakota Access Pipeline approvals did not comply with law (Indian Country) – After a meeting between Democratic Reps. Raúl Grijalva and Raul Ruiz and representatives of Standing Rock Sioux, Cheyenne River Sioux, Lakota, Apache tribes late last week, the representatives called for the Army Corps of Engineers' permits to be revoked. Full assessments for environmental and historical impact had not been completed before the permits were issued; ACOE may have acted under the influence of pipeline and oil companies. Grijalva and Ruiz are members of the House Natural Resources Subcommittee on Indian and Alaska Native Affairs. It's not clear what will happen next given the anticipated rise in oil prices and the impending general election.
- Monbiot op-ed: Fossil fuels must remain in the ground to

meet Paris Agreement (Guardian-UK) – Fossil fuel industry's own data shows that current extraction rates and plans will push global temperatures above 1.5C-2C, undermining the Paris agreement on climate change. The only sure way to comply with the temperature goals is to stop extracting fossil fuels.

Use the anticipated increase in oil prices as incentive to reduce its use. Put on the big person's panties and say no to pipelines and more extraction. Push for incentives to conserve while developing alternative energy. It's long past time.

Miscellany

- Police across U.S. misusing databases for personal reasons (AP via Salt Lake Tribune) – After conducting illegal searches of confidential information including addresses and Social Security numbers, police have been punished hundreds of times over the last three years. The article says the number of unauthorized database searches identified during reporting are “unquestionably an undercount.” It's not clear

from this report if these databases also include information gathered from surveillance including Stingray use

- CDC's flawed report left East Chicago IN children exposed to lead (Reuters) – Not clear how or why CDC's 5-year-old report claimed "nearly 100 percent" of children's blood lead levels had been tested in an area once home to a lead refinery. In reality, only 5 percent to 20 percent had been tested, and 22 percent of children around the West Calumet housing development area tested positive for elevated blood lead. This situation is so fishy; in my opinion, the Department of Justice should look more deeply into this case and not merely assist with obtaining settlement funding. Somebody inside the CDC did more than omit data or misstate conclusions.
- Mystery of USSR anthrax outbreak uncovered (Twitter) – Lifehacker's science and health writer Beth Skwarecki tweeted a brief story about a Soviet-era anthrax epidemic. It's a quick and

fascinating read (unrelated to the recent anthrax outbreak, to the best of my knowledge).

Quite enough without adding a longer read or listen, huh? Catch you later!

WEDNESDAY: TIME TRAVEL

In this roundup: A short film about a mother's time travel adventure, the Internet of Stupid Things, and more.

My oldest just finished her degree program and my youngest left for his first year of college this past month. Now I feel like the main character in this short film about a time traveler, but without the ugliness of teen drug abuse and the awkwardness that comes with an unexpected change in gender identity within the social circle.

Internet of (Stupid) Things

Speaking of time travel...remember when I posted back in June 2014 about the Internet of Things and asked how much more deeply embedded does the internet need to become in our lives before we begin to rethink its widening application?

Yeah. That. Before ransomware attacked hospitals and universities.

Before insecure webcams were used to conduct one of the largest distributed denial of service of attacks on the internet?

Just wondering when the public, government, and corporations will begin to take the threat of pervasive but insecure wireless devices seriously. It's not as if there haven't been

pointed warnings in which we've all been told "vendors ship their products like this...[A]nd then people put them online." (video at 22:40, c. 2013)

The attack on computer security expert Brian Krebs would have taken down nearly any other entity altogether. Not all individuals or organizations should expect Google to step in and rescue them (which was awfully generous of Google, since the information it will collect from continuing DDoS on Krebs isn't worth much commercially).

Let's face it: no new government effort will begin before the next president takes office. Is anybody preparing for changes in standards and regulation after the next administration begins?

It'd be nice to hear about this topic in one of the remaining pre-election debates, but I'm not holding my breath.

Stray Cats and Dogs

Here's a few tidbits I've been thinking about but haven't pulled together enough related content for a theme.

- Apple iOS 10 passwords even easier to crack? (Elcom Soft blog) – Post published by a 'password recovery' application website should tell you more than Apple iOS 10's backup protection has a weak spot.
- Long whiny profile piece on EPA's Chris Grundler (Bloomberg) – Corporatist media outlet complains that Grundler, as Director of the Office of Transportation and Air Quality, will cost poor Fiat Chrysler a whopping \$5

billion. Nice framing, boneheads. Fiat Chrysler's vehicles are required by law to meet EPA emissions standards. This expense is part of the cost of goods sold, period. Somebody at Bloomberg needs to take a basic accounting class. Same somebody should take comparative note how much it costs to wantonly violate emissions standards a la Volkswagen and its passenger diesels.

- Linux development community conflicted over ransomware (Softpedia) – Should infosec researchers and Linux developers post ransomware at Github, ostensibly for public review, or should it be kept under wraps? Surprisingly, the open source software community is split about the benefits/risks. The ransomware which had been posted has since been removed.
- Germany ordered Facebook to stop collecting data on WhatsApp users (Reuters) – Facebook plans to appeal this decision which protected German users' privacy. Have to wonder if

Google's new communications app Allo could run into similar conflicts with German privacy laws.

Longlisten: Corporate bot-pwned farming

I've previously mentioned the problem with current copyright law and machines. Andrew Middleton (@EcoAndrewTRC) and Andrew Thaler (@SFriedScientist) discuss John Deere tractors in particular in their latest podcast at What the Farm?!

That's a wrap on this post, please use it as an open thread. Sorry about the site's performance burp last evening; new and refreshed sites often have hiccups, but we'll try to keep them to a minimum and as short as possible. And do note the site's comment policy has not changed with the refresh. Thanks!

WEDNESDAY: BIG WHEELS TURNING

Hard to believe this was made in 1982. Yeah, the production quality doesn't match today's digital capabilities, but the story itself seems really prescient. How can an ethically-compromised bloviating bigot manage to fumble his way into office?

Now you know. Bet you can even offer constructive feedback on how director Danny DeVito could update this script for today's social media-enhanced election cycle.

Self-Driving Vehicles

- NHTSA issues guidelines for self-driving cars (Detroit Free Press) – FINALLY. But

is it a bit too late now that Uber already has a fleet on the streets of Pittsburgh and Tesla has been running beta cars? Let's face it: the federal government has been very slow to acknowledge the rise of artificial intelligence in any field, let alone the risks inherent in computer programming used in vehicles. We're literally at the end of a two-term presidency, on the cusp of entirely new policies toward transportation, and NOW the NHTSA steps in? We need to demand better and faster rather than this future-shocked laggy response from government – and that goes for Congress as well as the White House. Congress fails to see the importance of early regulation in spite of adequate warning:

Legislators warned automakers at the 15 March Senate hearing that the governing body took a dim view of the industry's ability to self-regulate. "Someone is going to die in this technology," Duke University roboticist Missy Cummings told the US Senate during a tense hearing where she testified alongside representatives from General

Motors and Delphi Automotive, among others.

Senators Ed Markey and Richard Blumenthal, who questioned car executives at the hearing, had cosponsored a 2015 bill to regulate self-driving automobiles. The bill was referred to committee and never returned to the floor. [source: *Guardian*]

In the mean time, we have an initial 15-point guideline the NHTSA wants to address; are they enough? Is a *guideline* enough? Witness Volkswagen's years-long fraud, flouting *laws*; without more serious consequences, would a company with Volkswagen's ethics pay any heed at all to mere guidelines? Are you ready to drive on the road with nothing but non-binding guidelines to hold makers of autonomous cars accountable?

- Multiple Tesla car models hackable (Keen Security Lab)
 - Check this video on YouTube. At first this seems like an innocuous problem, just lights, mirrors, door locks...and then * boom * the brakes while driving. These same functions would also be controlled by AI in a self-driving car, by the way, and they're already on the road. This is exactly what I mean by the feds being slow to acknowledge AI's rise.
- 'OMG COOL'-like impressions

from early self-driving Uber passengers (Pittsburgh Post-Gazette) – Criminy. The naïveté is astonishing. Of course this technology seems so safe and techno-cool when you have an Uber engineer and programmer along for the ride, offering the illusion of safety. Like having a seasoned, licensed taxi driver. Why not just pay for an actual human to drive?

- Tesla caught in back-and-forth with Mobileye (multiple sources) – After analyzing the May 2016 fatal accident in Florida involving Tesla's semi-autonomous driving system, Tesla tweaked the system. The gist of the fatal accident appears to have been a false-positive misinterpretation of the semi-trailer as an overhead road sign, for which a vehicle would not slow down. But this particular accident alone didn't set off a dispute between Tesla and the vendor for its Autopilot system, Mobileye. Another fatal accident in China which occurred in January was blamed on Tesla's Autopilot – but that, too,

was not the point of conflict between Tesla and its vendor. Mobileye apparently took issue with Tesla over “hands on” versus “hands-free” operation; the computer vision manufacturer’s 16-SEP press release claims Tesla said the Autopilot system would be hands on but was rolled out in 2015 as hands-free. Mobileye may also have taken issue with how aggressively Tesla was pursuing its own computer vision technology even before the two companies agreed to end their relationship this past July. A volley of news stories over the last two weeks suggest there’s more going on than the hands on versus hands-free issue. Interestingly enough, the burst of stories began just after a hacker discovered there’s a previously undisclosed dash cam capturing shots of Tesla vehicle operations – and yet only a very small number of the flurry of stories mentioned this development. Hmm. Unfortunately, the dash cam feature would not have captured snaps for the two

known fatal accidents because the nature of the accidents prevented the camera from sending images to Tesla servers.

Artificial Intelligence

- The fall of humans is upon us with our help (Forbes) – this article asks what happens when white collar jobs are replaced by artificial intelligence. Oh, how nice, Forbes, that you worry about the white collar dudes like yourselves but not the blue collar workers already being replaced. How about discussing alternative employment for 3.5 million truck drivers?
Or the approximately 230,000 taxi drivers?
How about subway, streetcar, and tram operators (number of which I don't currently have a number)?
How about the administrative jobs supporting these workers? This is just a portion of transportation alone which will be affected by the introduction of AI in self-driving/autonomous vehicles. What about other blue collar jobs at risk – like fast food workers, of

which there are 3.5 million?
And we wonder why Trump appeals to a certain portion of the working class. He won't be informed at all about this, will not have a solution except to remove persons of color as competition for employment. But the left must develop a cogent response to this risk immediately. It's already here, the rise of machines as AI and algorithmic replacements for humans. Let's not wait for the next Luddite rebellion V.2.0 – or is Trump's current support the rebellion's inception?

- But every business needs AI! (Forbes) – Uh...no conflict here at all with the previous article. Nope. Just playing the refs. Save America, people, just keep buying!(By the way, note how this contributor touts Hello Barbie chatbot as a positive sign, though Mattel's internet-enabled Barbie products have had some serious problems with security.)
- The meta-threat of artificial intelligence (MIT Technology Review) – Doubt my opinion? Don't take it

from me, then, take it from experts including one who plans to make a fortune from AI – like Elon Musk.

Longread: Academia becomes the new white collar underclass

You may have noted Long Island University-Brooklyn's 12-day lockout which was not really resolved last week but deferred by a contract extension. The dispute originated over a pay gap between Brooklyn and two other better paid LIU campuses. Ridiculous sticking point, given the small distance between these campuses LIU barred instructors from campus and halted their benefits during the lockout. Students walked out, infuriated by the temps who subbed in for the locked-out instructors – a cafeteria worker in one case filled in for an English instructor. LIU's walkout won't be the only such conflict over academic wages. To understand the scale of the problem, you'll want to read this piece at Guernica, which explains how academia is being shaken down across the U.S., not just in Brooklyn. I remember asking an academic administrator back in 2006 what would happen when secondary education was commodified; they couldn't imagine it ever happening. And now the future has arrived. What are we going to do about this while retaining U.S. standard in education?

Hope you're liking the site revamp! Do leave a comment if you find anything isn't working up to snuff.

TUESDAY: CHANGE OF PACE

I need a break – a change of pace after the last several day's nonstop doom-and-gloom observing

what has become an American version of the Day of the Dead. Add the nauseating bullshit misogynist circus piling on the “church faint” by a post-menopausal woman wearing too much clothing in humid weather while recovering from pneumonia. It’s unrelenting ridiculousness which can only be broken by the injection of dark humor.

I like this young director Almog Avidan Antonir’s body of short works, including this little zombie love story. Looking forward whatever he might have next up his sleeve.

The Dakotas

- Lawmaker unintentionally makes armed law enforcement drones legal in North Dakota (Independent-UK) – Way to go, dude. Legislator submitted a bill to outlaw armed drones; wretched police union got to the bill with revisions and now law enforcement can use drones armed with non-lethal force. North Dakota is now the first state in the U.S. to legalize armed drones. Want to bet law enforcement is already preparing to use this technology against pipeline protesters?
- South Dakota Yankton Sioux filed suit against U.S. government over pipeline (Indian Country Today) – While media focused attention on North Dakota’s Standing Rock Sioux protest

against the Dakota Access Pipeline, the Yankton Sioux in South Dakota filed against the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service. Though the planned pipeline runs through tribal treaty lands, the government did not complete an environmental study or a consult with the affected tribe – same complaint in South as in North Dakota. The pipeline company, Energy Transfer, did not use tribe members to identify any challenges during planning of the pipeline route.

- Trespass charges against journalist Goodman blows off First Amendment and Justice Dept. (Committee to Protect Journalists) – CPJ's Carlos Lauria said the warrant issued for Democracy Now's Amy Goodman is "a transparent attempt to intimidate reporters" covering the NoDAPL protests. Morton County's warrant ignores Justice Dept's joint statement with Interior Dept halting pipeline construction, in which the departments said, "we fully support the rights

of all Americans to assemble and speak freely. ..." Goodman clearly identified herself as a reporter.

- Oil producers whine about pipeline delays interfering with cheap oil (Fortune) – These guys are just not catching the cluestick. It may take shareholder activism to wake these morons up about the end of fossil fuels and a need for entirely new business models instead of forcing oil pipelines through.
- Standing Rock: a new civil rights movement? (Guardian) – Op-ed looks at the birth of a new movement where environmental and civil rights activism join forces to protect indigenous people and Missouri River – the longest river in the continental U.S.

Flint Water Crisis

- Former state epidemiologist not talking about possible plea deal (MLive.com) – Corinne Miller, now retired, was arraigned in August on felony misconduct and misdemeanor neglect of duty. Miller suppressed action on children's blood lead levels

and told Michigan Dept of Health and Human Services employees to delete emails related to the blood lead data.

- Water bill moves forward in Senate (The Hill) – Emergency funding for Flint and its lead-contaminated water system closer to passing as part of a \$9.4 billion bill for water-related infrastructure and clean drinking water. The bill also includes assistance for Louisiana's flood recovery. Money for Flint's aid may be paid by cutting the Energy Dept's Advanced Vehicle Manufacturing Technology loan program.
- Water filters still needed by Flint residents through end of year, possibly longer (Detroit Free Press) – There's no clear end to the water crisis, even though funding may soon be available. Thresholds for lead levels have not yet been agreed upon by state and federal officials. The amount of damage to the city's water system continues to complicate recovery efforts.

Still Picking on Volkswagen

- VW engineer plead guilty to conspiracy, wire fraud and violating Clean Air Act (Jurist.org) – The record of engineer James Robert Liang's June indictment was unsealed on Friday, revealing he and co-conspirators designed, implemented, and lied about emissions controls technology which evaded emissions standards. One interesting bit of new information is the involvement of an unnamed third-party engineering company partially owned by Volkswagen, referred to in the indictment as "Company A."
- Awkward: Liang to be sentenced during North American International Auto Show (Detroit News) – Four months from now, smack in the middle press week for Detroit's 2017 NAIAS, VW engineer Liang will be sentence in U.S. District Court in the Eastern District of Michigan. This op-ed notes Liang's plea hints at a much-larger conspiracy in VW pursued by

investigators. Somebody had to sign off on this design, at a minimum. And somebody had to tell Bosch what and how to make the non-compliant electronic controls units.

Longread: Rakoff on Fiss and rights under a War on Terror

United States District Judge Jed S. Rakoff looks at a collection of essays by legal scholar Owen Fiss, written over the last 13 years while the U.S. the so-called "War on Terror."

Toodles!

'PICKING ON' VOLKSWAGEN: WHY FOLLOW DIESELGATE?

One of our commenters described my attention to Dieselgate as 'picking on' Volkswagen. It's not as if there haven't been scandalous problems with other automotive industry manufacturers, like General Motors' ignition switches or Takata's airbag failures, right?

But Volkswagen earns greater attention here at this site because:

1) A critical mass of emptywheel readers are not familiar with the automotive industry, let alone manufacturing; they do not regularly follow automotive news. Quite a number are familiar with enterprise information security, but not car manufacturing or with passenger vehicle security. Many of the readers here are also in policy making, law enforcement, judiciary – persons who may influence outcomes at the very

beginning or very end of the product manufacturing life cycle.

2) This is the first identified* multi-year incidence in which an automotive industry manufacturer using computer programming of a street-ready vehicle to defraud consumers and willfully violate multiple U.S. laws. This willfulness wholly separates the nature of this risk from other passenger vehicle vulnerabilities, ex: Fiat Chrysler's hackable Uconnect dashboard computers or Nissan's unprotected APIs for keyless remotes. (These latter events arose from inadequate info security awareness though responsiveness of vehicle manufacturers after notification may be in question.)

3) Volkswagen Group is the single largest passenger vehicle manufacturer in Europe. This isn't a little deal considering half of all passenger vehicles in Europe are diesel-powered. Health and environmental damage in the U.S. from 600,000 passenger diesels has been bad enough; it's taking lives in the tens of thousands across Europe. 75,000 premature deaths in 2012 alone were attributed to urban NO2 exposures, the source of which is diesel engines. It was testing in the U.S. against U.S. emissions standards which brought VW's 'cheating' to light making it impossible for the EU to ignore any longer. The environmental damage from all Volkswagen passenger diesels combined isn't localized; these additional non-compliant emissions exacerbate global climate change.

These are the reasons why Dieselgate deserved heightened scrutiny here to date – but the reasons why this scandal merits continued awareness have everything to do with an as-yet unrealized future.

We are on the cusp of a dramatic paradigm shift in transportation, driven in no small part by the need for reduced emissions. Development and implementation of battery-powered powertrains are tightly entwined with artificial intelligence development for self-driving cars.

Pittsburgh PA is already a testing ground for a fleet of self-driving Uber vehicles; Michigan's state senate seeks changes to the state's vehicle code to permit self-driving cars to operate without a human driver to intervene.

All of this represents a paradigm shift in threats to the public on U.S. highways. Self-driving car makers and their AI partners claim self-driving vehicles will be safer than human-driven cars. We won't know what the truth is for some time, whether AI will make better decisions than humans.

But new risks arise:

- An entire line of vehicles can pose a threat if they are programmed to evade laws, ex: VW's electronic control unit using proprietary code which could be manipulated before installation. (Intentional 'defect'.)
- An entire line of vehicles can be compromised if they have inherent vulnerabilities built into them, ex: Fiat Chrysler's Uconnect dashboard computers. (Unintentional 'defect'.)

Let's 'pick on' another manufacturer for a moment: imagine every single Fiat Chrysler/Dodge/Jeep vehicle on the road in 5-10 years programmed to evade state and federal laws on emissions and diagnostic tests for road-worthiness. Imagine that same programming exploit used by criminals for other means. We're no longer looking at a mere hundred thousand vehicles a year but millions, and the number of

people at risk even greater.

The fear of robots is all hype, until one realizes some robots are on the road now, and in the very near future all vehicles will be robots. Robots are only as perfect as their makers.

An additional challenge posed by Volkswagen is its corporate culture and the deliberate use of a language barrier to frustrate fact-finding and obscure responsibility. Imagine now foreign transportation manufacturers not only using cultural barriers to hide their deliberate violation of laws, but masking the problems in their programming using the same techniques. Because of GM's labyrinthine corporate bureaucracy, identifying the problems which contributed to the ignition switch scandal was difficult. Imagine how much more cumbersome it would be to tease out the roots if the entire corporate culture deliberately hid the source using culture, even into the coding language itself? Don't take my word for how culture is used to this end – listen to a former VW employee who explains how VW's management prevaricates on its 'involvement' in Dieselpgate (video at 14:15-19:46).

Should we really wait for another five to 10 years to 'pick on' manufacturers of artificially intelligent vehicles – cars with the ability lie to us as much as their makers will? Or should we look very closely now at the nexus of transportation and programming where problems already occur, and create effective policy and enforcement for the road ahead?

** A recent additional study suggests that Volkswagen Group is not the only passenger diesel manufacturer using emissions controls defeats.*

THURSDAY: ALIEN OCCUPATION

Since I missed a Monday post with a movie clip I think I'll whip out a golden oldie for today's post.

This movie – especially this particular scene – still gets to me 37 years after it was first released. The 'chestburster' as scene is commonly known is the culmination of a body horror trope in Ridley Scott's science fiction epic, *Alien*. The horror arises from knowing something happened to the spacecraft *Nostromo*'s executive officer Kane when a 'facehugger' leapt from a pod in an alien ship, eating through his space helmet, leaving him unresponsive as long as the facehugger remained attached to his face. There is a brief sense of relief once the facehugger detaches and Kane returns to consciousness and normal daily functions. But something isn't right as the subtle extra scrutiny of the science officer Ash foreshadows at the beginning of this scene.

Director Ridley Scott employed a different variant of body horror in his second contribution to the *Alien* franchise, this time by way of a xenomorph implanted in her mimicking pregnancy in scientist Shaw. She is sterile, and she knows whatever this is growing inside her must be removed and destroyed or it will kill both her and the remaining crew. The clip shared here and others available in YouTube actually don't convey the complete body horror – immediately before Shaw enters this AI-operated surgical pod she is thwarted by the pod's programming for a default male patient. In spite of her mounting panic and growing pain she must flail at the program to enter alternative commands which will remove the thing growing inside her.

I suspect the clips available in YouTube were uploaded by men, or they would understand how integral to Shaw's body horror is the inability

to simply and quickly tell this surgical pod GET THIS FUCKING THING OUT OF ME RIGHT THE FUCK NOW.

I don't know if any man (by which I mean cis-man) can really understand this horror. Oh sure, men can realistically find themselves host to things like tapeworms and ticks and other creatures which they can have removed. But the horror of frustration, being occupied by something that isn't right, not normal, shouldn't continue, putting its host at mortal risk – and not being able to simply demand it should be removed, or expect resources to avoid its implantation and occupation in one's self? No. Cis-men do not know this terror.

Now imagine the dull background terror of young women in this country who must listen to white straight male legislators demand ridiculous and offensive hurdles before they will consider funding birth control to prevent sexual transmission of Zika, or fund abortions of Zika-infected fetuses which put their mothers at risk of maternal mortality while the fetuses may not be viable or result in deformed infants who'll live short painful lives. Imagine the horror experienced by 84 pregnant women in Florida alone who've tested positive for Zika and are now being monitored, who don't know the long-term outcomes for themselves or their infants should their fetuses be affected by the virus.

Body horror, daily, due to occupation not only by infectious agents alien to a woman's body, but occupation by patriarchy.

I expect to get pooh-poohed by men in comments to which I preemptively say fuck off. I've had a conversation this week about Zika risks with my 20-something daughter; she turned down an invitation this past week to vacation with friends in Miami. It's a realistic problem for her should she accidentally get pregnant before/during/immediately following her trip there.

We also talked about one of her college-age friend's experiences with Guillain-Barré

syndrome. It's taken that young woman nearly three years to recover and resume normal function. She didn't acquire the syndrome from Zika, but Guillain-Barré's a risk with Zika infections. There's too little research yet about the magnitude of the risk – this vacation is not worth the gamble.

But imagine those who live there and can't take adequate precautions against exposure for economic reasons – imagine the low-level dread. Imagine, too, the employment decisions people are beginning to make should job offers pop up in areas with local Zika transmission.

What's it going to take to get through to legislators – their own experience of body horror? Movies depicting body horror don't seem to be enough.

Wheels

Put these two stories together – the next question is, "Who at VW ordered the emissions cheat device from Bosch before 2008?"

- Bosch asked Volkswagen for indemnification in 2008 (Bloomberg)
- Volkswagen and Bosch met shortly after ICCT revealed discovery of emissions cheat device in 2014 (WSJ)

Pretty strong incentives for Volkswagen to destroy email evidence. I wonder what Bosch did with their emails?

Self-driving electric cars are incredibly close to full commercialization based on these two stories:

- Michigan's state senate bill seeks approval of driverless cars (ReadWrite) – Bill would change state's code to permit "the motor vehicle to

be operated without any control or monitoring by a human operator.” Hope a final version ensures human intervention as necessary by brakes and/or steering wheel. I wonder which manufacturer or association helped write this code revision?

- California now committed to dramatic changes in greenhouse gas emissions (Los Angeles Times) – State had already been on target to achieve serious reductions in emissions by 2020; the new law enacts an even steeper reduction by 2030 in order to slow climate change effects and improve air quality.

I don't know if I'm ready to see these on the road in Michigan. Hope the closed test track manufacturers are using here will offer realistic snow/sleet/ice experience; if self-driving cars can't navigate that, I don't want to be near them. And if Michigan legislators are ready to sign off on self-driving cars, I hope like hell the NHTSAA is way ahead of them – especially since emissions reductions laws like California's are banking heavily on self-driving electric cars.

Google-y-do

- Google's parent Alphabet-ting on burritos from the sky (Bloomberg) – No. No.

NO. Not chocolate, not doughnuts, not wine or beer, but Alphabet subsidiary Project Wing is testing drone delivery of Chipotle burritos to Virginia Tech students? Ugh. This has fail all over it. Watch out anyhow, pizza delivery persons, your jobs could be on the bubble if hot burritos by drone succeed.

- API company Apigee to join Google's fold (Fortune) – This is part of a big business model shift at Google. My guess is this acquisition was driven by antitrust suits, slowing Google account growth, and fallout from Oracle's suit against Google over Java APIs. Application programming interfaces (APIs) are discrete programming subroutines which, in a manner of speaking, act like glue between different programs, allowing programmers to obtain resources from one system for use in a different function without requiring the programmer to have more than passing understanding of the resource. An API producer

would allow Google's other systems to access or be used by non-Google systems.

- Google to facilitate storage of Drive content at cloud service Box (PC World) – Here's where an API is necessary: a Google Drive user selects Box instead of Drive for storage, and the API routes the Drive documents to Box instead of Drive. Next: imagine other Google services, like YouTube-created/edited videos or Google Photo-edited images, allowing storage or use by other businesses outside of Google.

Longread: Digitalization and its panopticonic effect on society

Columbia's Edward Mendelson, Lionel Trilling Professor in Humanities and a contributor at PC Magazine, takes a non-technical look at the effect our ever-on, ever-observing, ever-connected technology has on us.

Catch you later!

TUESDAY: IN A SEASON OF CRIME

*Ride the train, I'm far from home
In a season of crime, none need atone*

I kissed your face

– excerpt, Sue (or In a Season of Crime)
by David Bowie

Bowie left us an amazing parting shot with his 25th and final album, Blackstar. The cut featured here is a free jazz/jazz-rock fusion work which sounds off-kilter or out of sync, the lyric melody not tracking with rhythm – until one looks at the lyrics as a story of confusion told at the same time as a driving lyric-less and inevitable story beats on at the same time.

Seems like an unintended metaphor for our general election politics.

Back to School, Fool

Guess who's back in town? A bunch of Congressional lame ducks back from vacation – I mean – work in their districts where they glad-handed at county fairs between bites of deep-fried Twinkies and kissing babies for campaign photo ops.

Get back to work and produce funding for Zika research AND birth control, damn it. Your continued intransigence is costing lives – short, ugly, painful, deformed lives on which you are pitiless and merciless, you fundamentalist let-them-eat-cake hacks. It's only a matter of time before somebody in your district ends up Zika-infected and pregnant after vacation trip to someplace warm like Miami – or mosquito-bitten during during their day job like lawn care or construction or mail delivery. Researchers are working incredibly hard with the limited funding they've had; there's only so much they can do with inadequate funding. And birth control MUST be available to all who need it. Planned Parenthood can and does hand out condoms, you pathetic slack-handed weasels. Fund them.

STG if I was the president, I'd look at any way possible to trim funding to unusual projects in states with GOP senators and then declare an

emergency, pull that trimmed funding to pay for subsidized birth control in the same damned states. With researchers now having found Zika infection may spread by bodily fluids like semen, vaginal fluid, saliva, and tears while documented cases mount, there's ample grounds to write an executive order during a lame duck session.

Big Oil = Big Bully

- A temporary restraining order has been granted for a portion of the North Dakota Access Pipeline under construction (Reuters) – The TRO halted construction between Highway 1806 and 20 miles to the east of Lake Oahe. Construction to the west of Highway 1806 may continue.
- Though Army Corps of Engineers doesn't oppose TRO, it thinks the Sioux will lose their case (NPR) – The Standing Rock Sioux Tribe filed suit earlier this summer with the U.S. District court for District of Columbia because the Army Corps violated numerous laws when it authorized the construction and operation of the NoDAPL. Had the Army Corp completed appropriate assessments required by the National Historic Preservation Act, National

Environmental Policy Act, and the Clean Water Act, the pipeline's construction would likely have been rerouted or its authorization denied.

- Enbridge doubled down on the North Dakota Access Pipeline (Bloomberg) – Same company responsible for the biggest domestic oil spill ever has now killed plans for the Sandpiper pipeline which was to run through Minnesota down to Wisconsin; they blame the collapse of oil pricing and the increased expense and timing due to state regulations. This Canadian company has instead chosen to rely on the NoDAPL from the Bakken shale oil field through the Dakotas to Iowa.
- Guard dogs and pepper spray used against protesters on Saturday (NPR) – We've seen this same kind of violence against peaceful protesters before, not unlike practices by extractive businesses mining in countries like Canada, Bolivia, Peru, Philippines, South Africa, and more. Absolutely unacceptable against unarmed persons particularly when

children are present.

- Bulldozers ripped through Sioux graves and religious markers (Chicago Tribune) – Why did Army Corp of Engineers sign off on this? Why was this excavation allowed to happen without an assessment as requested by
- 150 tribes have now expressed solidarity with Standing Rock Sioux (White Wolf Pack) – Members from 60 or more Native American tribes have gathered to protest against the NoDAPL with the Standing Sioux – the largest gathering of tribes in over 100 years and the first time since 1875 that all the Lakota tribes have gathered at Cannonball River, ND.
- Excavation and attacks on protesters continued despite UN statement that the NoDAPL project violated U.N. Declaration on the Rights of Indigenous Peoples (WaPo) – What. The. Hell? Did the pipeline company Energy Transfer, its partners and financiers think rushing the start of construction over a sovereign nation's graves would make this rights' violation go away?

The NoDAPL project is bad all around. There's no good reason for it to proceed.

- The economics of oil supply and demand do not support it; the cost to proceed is simply not supportable.
- The environmental cost of this project and the oil it is intended to carry are untenable; investment of resources private and public should go toward non-fossil fuels.
- The project violates the rights of Native Americans in numerous ways and no good faith effort has been made to address them during planning, let alone now as construction begins. The current and future damage to the Sioux only exacerbates hundreds of years of abuses against their sovereign nation.
- The companies investing in this project including Enbridge cannot assure the safe operation of this pipeline given the history of pipeline leaks across this country. In Enbridge's case, this foreign-owned corporation has already proven unreliable and opaque in pipeline operations.
- NoDAPL should not proceed for the same reasons Keystone XL pipeline did not proceed: it is not in our country's best interest.

I don't know how anyone can look at this bulldozing of land containing buried Native Americans and not see it as a direct, deliberate effort to erase their existence. This is accursed behavior which in no way addresses the needs for alternative energy outlined in the Defense Department's Quadrennial Review or our nation's need to secure its people by reducing carbon dioxide output.

Odd Lots

- Disposal wells in Oklahoma including Osage Nation shut down after earthquake (Tulsa World) – Yet another case

where extractive fossil fuel business on Native American tribal lands has been highly problematic. 17 wells were shut down by the EPA after Oklahoma's M5.6 induced earthquake this weekend; these wells are in addition to 37 other disposal wells shut down this weekend near the quake's epicenter. Haven't seen yet whether another earthquake of this magnitude could set off an overdue 500-year magnitude earthquake along Missouri's New Madrid fault.

- U.S. district judge denies federal plan to open 1 million acres of central CA public lands for fracking and drilling (IndyBay.org) – Bureau of Land Management didn't do its homework on environmental risks from fracking, focusing too heavily on drilling instead. Sounds a lot like Army Corp of Engineers' slap-dash disregard for externalities when it analyzed the NoDAPL, doesn't it?
- OK's earthquake insurance market already under review (Tulsa World) – Insurers have only paid out on 20 percent of earthquake-

related claims since 2010; the market has also undergone consolidation and 300-percent rate increases. No word yet on how much damage this weekend's M5.6 quake or subsequent aftershocks have caused. Hope the public lights a fire under Oklahoma Insurance Commissioner John Doak about his review of the market. It's grossly unfair the public must bear the cost of risk created by extractive industries as it is.

Longread: Lawsuit against DMCA Section 1201

Johns Hopkins University professor and cryptographer Matthew Green filed suit against the federal government in late July to strike down Section 1201 of the Digital Millennium Copyright Act. The current law prevents security researchers from adequately investigating products. Worthwhile read – this has huge repercussions on our safety and security given how much of the technology around us is copyrighted but leaky as hell and prone to hacking.

Hasta pasta!

WEDNESDAY: IF I HAD A HEART

| *Crushed and filled with all I found*

*Underneath and inside
Just to come around
More, give me more, give me more*

– excerpt, If I Had a Heart by Fever Ray

Today's featured single is from Fever Ray's eponymous debut album 'Fever Ray', the stage name for Swedish singer, songwriter and record producer Karin Elisabeth Dreijer Andersson. If her work sounds familiar, it may be that she and her brother Olof Dreijer also performed as The Knife. Karin's work is reminiscent of Lykke Li's and Bjork's electronic/ambient works, redolent with dark rhythms and layers of deep and high-pitched vocals – very Nordic feminine.

Fever Ray has been very popular with television programmers; the cut featured here is the theme song for History Channel's Vikings series. It's also been used in AMC's Breaking Bad and WB's The Following. Other songs by Karin as Fever Ray including Keep the Streets Empty for Me have been used by CBS' Person of Interest and Canadian TV's Heartbeats as well as a number of films. I'm looking forward to her next work, wondering if it will be just as popular TV and film industry.

Fossil feud

- TransCanada approval hearing delayed due to protests (Reuters) – Not just U.S. and Native Americans protesting oil pipelines right now; Canada's National Energy Board deferred this week's hearings due to security concerns (they say). The board is scheduled to meet again in early October about the planned

pipeline from Alberta to Canada's east coast. There may be more than security concerns holding up these hearings, though...

- Big projects losing favor with Big Oil (WaPo-Bloomberg) – The ROI on big projects may be negative in some cases, which doesn't service massive debt Big Oil companies have incurred. They're looking at faster turnaround projects like shale oil projects – except that these quick-hit projects have poorly assessed externalities which will come back and bite Big Oil over the long run, not to mention the little problem of fracking's break-even point at \$65/barrel.
- Big Insurance wants G20 to stop funding Big Fossil Fuel (Guardian) – Deadline the biggest insurers set is 2020; by then, Big Insurance wants the G20 nations to stop subsidizing and financing fossil fuels including Big Oil because subsidies and preferential financing skew the true cost of fossil fuels (hello, externalities).
- Standing Rock Sioux continue

their protest against the North Dakota Access Pipeline (Guardian) – Video of the protest at that link. Calls to the White House supporting the Sioux against the DAPL are solicited. Wonder if anybody's pointing out fracked shale oil is a losing proposition?

Zika-de-doo-dah

- Adult mosquitoes can transmit Zika to their offspring (American Journal of Tropical Medicine and Hygiene) – Study looked at infected *Aedes aegypti* and *albopictus* mosquitoes and found the virus in subsequent larva. My only beef with this study is that *Culex* species were not also studied; they aren't efficient carriers of Zika, but they do carry other flavivirus well and there are too many cases with unexplained transmission which could have been caused by infected *Culex*. Clearly need to do more about pre-hatch mosquito control regardless of species.
- Three drugs show promise in halting Zika damage in humans (Johns Hopkins

Univerity Hub) – Important to note some of the same researchers who demonstrated Zika caused damage in mice brain models earlier this year have now rapidly screened existing drugs to test against mice brain models. The drugs include an anti-liver damage medication (emricasan), an anti-parasitic (niclosamide), and an experimental antiviral drug. The limitation of this research is that it can't tell how the drugs act across placenta to fetus and whether they will work as well and safely once through the placenta on fetuses. More research (and funding!) is needed.

- Contraception no big deal, says stupid old white male GOP senator's staffer (Rewire) – Right. If only McConnell and his staff could experience the panic of being poor and at risk of Zika. Not everybody in Puerto Rico has ready access to the "limited number of public health departments, hospitals, and Medicaid Managed Care clinics," let alone other states like Texas which has such awful

women's reproductive care in terms of access and funding the maternal mortality rate has doubled in two years, up 27%. Pro-life, my ass. By the way, this lack of access to contraception affects men, too, who may unknowingly be infected with Zika and transmit it to their sexual partners.

Longread Must-read: Super court

If you haven't already done so, you need to read this investigative report by Chris Hamby at BuzzFeed. While it answers a lot of questions about the lack of perp walks, it spawns many more.

Hasta luego, compadres!