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Comments to FCC re: 19-226

I respectfully submit my comments regarding the FCC establishing radiofrequency radiation guidelines.

After a personal statement regarding my electrosensitivity and how your decisions affect my life, I will address 1) existing exposure limits and new rules, 2) allowing manufacturers to average radiation output over time on consumer devices, and 3) how the FCC should regulate Wireless Power Transfer (WPT) technologies.

A Personal Statement Regarding My Electrosensitivity

I expect you are here to uphold the FCC's notion supporting the telecom industry and bolstering the status quo. Yet I ask you, as an individual with a conscience and strong convictions, to question the narrative that wireless communications are safe at even the current levels. It is this mythical safety that Big Telecom sells through advertising, newscasts, search engines, and embeds in shows such as in HBO's "Better Call Saul" either by happenstance or design. Yet thousands of studies contradict this story and show evidence of biological harm from radiofrequency radiation (RFR). I can just give you a glimpse, here. Thank you for listening to me.

To toe the industry line that only thermal damage related to heating can result from exposure to RFR is, in effect, to hurt people, ALL people. Even dogs, cats, birds, pollinating insects, trees, and plants are impacted. Sure, children, the elderly, and the already ill come to mind first as vulnerable, as the American Academy of Pediatrics has attested in its 2013 letter to the FCC. (There is a link to this letter later.) The electrosensitive, those who can recognize the direct relationship between RFR and their health, are also vulnerable.

We need to protect people's rights instead of advocating for more industry domination of the air. It is a human right and a civil right to have clean air, even if the poisons in it are invisible, as with radiofrequency radiation and other electromagnetic radiation (EMR), and even if our status quo "judges" refuse to weigh independent science and science that contradicts their belief that RFR is safe. Critically, it is a property right not to have a small cell poisoning one's home from just outside their bedroom window or from down the block. Nor is it acceptable to beam it from satellites to Earth, as Elon Musk and others are devising. To borrow Thomas Jefferson's metaphor, each such arrangement both "picks our pocket" AND "breaks our leg," violating both our personal property rights and our human right to health.

I have electrohypersensitivity (EHS) to RFR. Let me be clear that it is something that affects my health adversely 24 hours a day and is not the figment of an overactive imagination or underlying mental problem. I do not take posting this information lightly. I don't think the EHS name is helpful as it connotes that only some people are "hypersensitive" and thus affected by RFR. Wireless radiation affects all living things, because it affects animal and plant cells. Trees in the first study below, that were near base stations, had damage to parts of the trees facing the radiation, which in some cases killed the whole tree.

Links hereby incorporated by reference:

"Radiofrequency radiation injures trees around mobile phone base stations,"

Cornelia Waldmann-Selsam, Alfonso Balmori-de la Puente, Helmut Breunig, Alfonso Balmori

https://www.sciencedirect.com/science/article/abs/pii/S0048969716317375?via%3Dihub

"A review of the ecological effects of radiofrequency electromagnetic fields (RF-EMF)," S. Cucurachi, W.L.M. Tamisa, M.G.Vijver, W.J.G.M.Peijnenburg, J.F.B.Bolte, G.R.de Snoo.

https://www.sciencedirect.com/science/article/pii/S0160412012002334

The above review found that "RF-EMF had a significant effect on birds, insects, other vertebrates, other organisms and plants in 70% of the studies." We need more studies before introducing even more radiofrequency radiation. "There is an urgent need for repetitions of studies finding effects and investigations into effects on ecosystems."

Insects absorb radiofrequency radiation, and will do so at frequencies over 6GHz, say scientists in "Exposure of Insects to Radio-Frequency Electromagnetic Fields from 2 to 120 GHz," by Arno Thielens, Duncan Bell, David B. Mortimore, Mark K. Greco, Luc Martens & Wout Joseph. "A shift of 10% of the incident power density to frequencies above 6 GHz would lead to an increase in absorbed power between 3–370%. This could lead to changes in insect behaviour, physiology, and morphology over time due to an increase in body temperatures, from dielectric heating." We need to do more and better studies before introducing a higher frequencies at a local, or a global, scale. Who wants to be imprisoned in a driverless car along 5G transmitter-lined roads stripped of insects, and devoid of

the birds, amphibians and reptiles which eat those insects, in a world where our pollinators that germinate our crops are already in peril?

https://www.researchgate.net/publication/323523955_Exposure_of_Insects_to_Radio-Frequency_Electromagnetic_Fields_from_2_to_120_GHz

I was a stay-at-home dad, working 20 hours a week at the Peace Dale Library's Circulation Desk in Rhode Island from December 2015 to May 2016, while my wife progressed toward tenure in her university's science department. I enjoyed my employment at the magnificent library.

I enjoyed the work, that is, until I began to get health problems. Insomnia, where I woke up after two hours of sleep, and couldn't fall back asleep. Dyslexia, when I tried to shelve books. Memory loss, when I tried to recall recent events or what my boss asked me to do. Brain fog, when I tried to solve problems. Anxiety, heart palpitations, stomach cramps, headaches toward the end of my workday and into the evening. Sometimes I'd get irritable, after or during radiation exposure.

I got Lyme tests: negative. I had the visits to all the different doctors. I did the soul searching.

I finally realized that the Circulation Desk was 10 feet from the whole-library Wi-Fi transmitter. I had thought it was a smoke detector, on the low ceiling. It says Bluesocket on it. (I also tested the Bluesocket: high radiation, at least 6 V/m where my meter maxed out but within the ineffectual standards set forth by the FCC, which are like putting up a 1000 mph speed limit sign by an elementary school.)

There were 16 computer terminals wirelessly connected to that Wi-Fi transmitter, as well as any laptops or smartphones that people brought in, some running high-bandwidth YouTube videos.

We did not have Wi-Fi at home, however, because I had read that it was wise to use "the precautionary principle" when it comes to raising children because the radiation standards we have are outdated and irrelevant, their skulls are thinner and they're growing, replicating cells. Indeed, the American Academy of Pediatrics (AAP), in 2013, said as much in its letter to the Federal Communications Commission (FCC) regarding its radiofrequency radiation (RFR) standards.

Link hereby incorporated by reference:

“2013 American Academy of Pediatrics Letter to the Federal Communications Commission: Update Radio Frequency Limits to Protect Children,” Thomas K. McInerny.

https://ehtrust.org/2013-american-academy-pediatrics-letter-fcc-outdated-radiofrequency-cell-phone-wireless-radiation-exposure-limits/

It didn’t seem such a huge hassle to have our computer hooked up with ethernet wires. So, when I returned home from the library, I could tell the difference. My wife couldn’t. (But just because she doesn’t feel it like I do doesn’t preclude her from getting cancer, early-onset dementia, ALS, diabetes, or other effects.) In fact, her university has inundated her office with antennas on the roof, Wi-Fi in the hallways with relays every twelve feet. All this while they have working, fast, secure, wired ethernet, making Wi-Fi superfluous.

I reluctantly quit the library after 6 months. I began to recover my memory, lost the dyslexia, and the insomnia got somewhat better as did my mood. But when I went to environments with Wi-Fi and other electromagnetic fields, some symptoms would recur. I’m much more sensitive now, even to other frequencies, like those from my electric stove, my vacuum cleaner, and even my hardwired computer and its screen, which hurts my eyes right now as I type. I get muscle spasms, pressure behind my eyes, soreness in my eyes, and tension around them.

Because my blood-brain barrier has been damaged by the library’s Wi-Fi, I have had to change my lifestyle, diet, the places I visit. I cannot work in a typical office, and I limit the time spent at other people’s homes, the grocery store, restaurants, my children’s schools, and other performances. I have woken with my ears screaming with tinnitus after going to my daughter’s band recital, not because it was loud (it wasn’t) but because I was situated between two Cisco Wi-Fi transmitters in the cafeteria. I duck into and out of public spaces, where my heart may flutter and then I’ll look around for the source. Ah, there it is, a transmitter. After visits, my arms may go numb during sleep. My eyes are sore. My hands turn red, puff up and my feet burn. My elbows ache, ankles feel pain. I sleep worse. I’m 53, 5’9”, weigh 140 lbs., down from 150. Now I eat lots of organic vegetables and rice, no wheat. Most doctors don’t know about EHS, because the first large and accredited Electromagnetic Frequency conference occurred just last September.

2 links hereby incorporated by reference:

2019 Electromagnetic Fields Medical Conference for which physicians may receive accredited Continuing Medical Education credits, is found at this link below, educating doctors and other medical personnel, most of whom are unaware of health risks of electromagnetic radiation:

https://emfconference.com/

My top-notch physician, Dr. Brody, who earned his MD from Columbia University College of Physicians and Surgeons, understands. US News ranks Columbia at #6 currently: https://www.usnews.com/best-graduate-schools/top-medical-schools/columbia-university-04070

My Americans with Disabilities Act (ADA) letter from Dr Mark Brody is attached in **PDF**.

There has been much new information added to the scientific database in just the last four years. The World Health Organization (WHO) site mentions that there were roughly 21,000 scientific papers as of April 2015 on the biological effects of electromagnetic fields, as noted on their website below.

2 links hereby incorporated by reference:

https://www.who.int/peh-emf/research/database/en/

Now there are over 31,000 studies. 10,000 more in just 5 years. Not every study shows harm. There are some ways to use RFR in healthcare to provide better outcomes. But others show serious biological harm, and these are not cancelled out by the hopeful findings. Just having one study showing biological harm refutes the FCC position that biological harm does not exist, as the FCC guidelines have no standards whatsoever regarding biological harm, and instead rely on the outdated and incorrect assumption that it is only thermal effects from radiofrequency radiation (RFR) that cause harm to tissue. The link to the EMF Portal, which the WHO references, and the running tally of studies, is below.

https://www.emf-portal.org/en

Here's one of those studies, attached in PDF, from February 2020, entitled "Electrohypersensitivity as a Newly Identified and Characterized Neurologic Pathological Disorder: How to Diagnose, Treat, and Prevent It," by Dominique Belpomme and Philippe Irigaray. The authors focus on people like me, and my children who have inherited some of my genes and may likely be affected far more adversely than me due to a lifetime of increasing RFR exposure in a world with

billions of emitting devices and no way to avoid the RFR. The authors believe RFR may affect millions of people worldwide. I'll also attach research on biological effects of Wi-Fi, 5G, and impacts on mental health.

Link hereby incorporated for reference:

https://www.sciencedirect.com/science/article/pii/S0013935118300355?via%3Dihub

"Wi-Fi is an important threat to human health," Martin L. Pall, Journal of Environmental Research, 23 January 2018, details research on Wi-Fi and demonstrates biological harm from its RFR. I quote from the abstract: "Repeated Wi-Fi studies show that Wi-Fi causes oxidative stress, sperm/testicular damage, neuropsychiatric effects including EEG changes, apoptosis, cellular DNA damage, endocrine changes, and calcium overload." It is not acceptable to me that my son and my daughter, when adults, may not be able to reproduce because of the harm done to them by an wireless industry bent on profit, blinded by the PR-campaign so-called science by that industry, relying upon scientists full of ego and the desire for sustaining contracts but short on medical knowledge and empathy, and accepting impossible standards for scientific certainty. Yet this certainty benefits only the aggressor, the industry, and not the end-users, you and me.

Yes, empathy has much to do with it. The changes within our brains and bodies, sapping our energy, clouding our minds. These haven't always been with us! They aren't just due to "stress," or "because we are getting old." While toxins exist from other sources, like pesticides and pharmaceuticals in food and water, the ubiquitous and expanding reach of chemicals, particulates from geoengineering, the burning of fossil-fuels and other combustion, plastics in the oceans and thus our seafood, these all assault our bodies. For electrosensitive people, who have had their blood-brain barrier damaged by RFR, it is devastating. The brain has no protection and the onslaught takes its toll. Dr Pall has found the mechanism—the smoking gun—by which biological damage from RFR occurs via voltage gated calcium channels (VGCCs); have a look at his article above.

We need to take into consideration the critical way in which EMFs cause harm to human mental health. Dr Pall has analyzed the research in this field.

Link hereby incorporated for reference:

https://www.sciencedirect.com/science/article/pii/S0891061815000599?via%3Dihub

"Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression," Martin L. Pall, 9 August 2015, Journal of Chemical Neuroanatomy.

From Dr Pall's article, "Among the more commonly reported changes are sleep disturbance/insomnia, headache, depression/depressive symptoms, fatigue/tiredness, dysesthesia, concentration/attention dysfunction, memory changes, dizziness, irritability, loss of appetite/body weight, restlessness/anxiety, nausea, skin burning/tingling/dermographism and EEG changes."

What may be extremely costly for societies around the world, as we are selling them our lack of safety standards by our example and the products we make, is that this irritability we may feel from RFR can be expressed in anger. I have found in retrospect, that by working by a Wi-Fi transmitter on my computer desk, I was highly excitable and quick to anger. Yet when I removed myself from a Wi-Fi environment, and removed RFR from my home as best I could, I was far more relaxed, with balance restored (if not perfectly because of all the other RFR sources I cannot control), and able to manage my emotions far more easily. I was happier.

Also dangerous to society is that RFR may be linked to lack of empathy. By damaging the very part of the human brain that makes us human and feel empathetic with others, we may be creating a society of sociopaths.

Link hereby incorporated for reference:

https://www.globalresearch.ca/adverse-health-effects-from-the-operation-of-digital-broadcast-television-stations-dvb-8208-t/12596

"Adverse Health Effects from the Operation of Digital Broadcast Television Stations (DVB-T), by Dr. Cornelia Waldmann-Selsam, Dr. Christine Aschermann, and Dr. Markus Kern, Global Research, 7 March 2009.

Near the new wide-broadband TV signal transmitting area in Germany, doctors reported patients with unusual symptoms in concert with broadcast activation. "Within a radius of more than 20 km, the following symptoms that occurred abruptly were reported: constant headaches, pressure in the head, drowsiness, sleep problems, inability to think clearly, forgetfulness, nervous

tensions, irritability, tightness in the chest, rapid heartbeat, shortness of breath, depressive mood, total apathy, loss of empathy, burning skin, inner burning, leg weakness, pain in the limbs, stabbing pain in various organs, weight increase." One child even committed suicide.

As you sit working with Wi-Fi, do you feel for these people? Please also think of your own health. Have you ever turned your Wi-Fi off?

The only sure way to protect myself is to avoid radiation sources. Indeed, the RFR shielding offered by companies trying to meet the needs of electrosensitive people is a possible hazard. Some are preying on fear, offering quackery. Others may believe theirs helps and may indeed block radiation. But the bottom line is that shielding may make the radiation worse, not better. The FCC and FDA need to provide stronger guidelines for RFR limits that have biological underpinnings, but also provide standards—and testing—for products that can shield people from the RFR that is already out there. Since the shielding blocks natural EMFs which are beneficial to our circadian rhythm, it would be very beneficial to know if a Schumann resonance generating machine actually works. The device is presumed to generate the roughly 8 GHz large waves made by the Earth, which are kept out by a bed canopy shield made of fine strands of copper covered with cloth, like mosquito netting, but that deflects RFR. It would be beneficial also to know what shielding needs to be grounded and what does not. Attached as **PDF**, please find a recent study regarding RFR shielding: "Shielding methods and products against man-made Electromagnetic Fields: Protection versus risk," by Dimitris J. Panagopoulos and George P. Chrousos.

I love the outdoors. I love my family. I love my home. If I am subjected to 5G from satellites or from its mast outside my home, there will be no way for me to avoid it. But most importantly, what will happen to my children in a world where technology harm is unquestioned? Please, I urge you, do not let them add 5G on top of 3G and 4G. 5G is not a stand-alone frequency. It is highly toxic.

Thank you for listening.

Question 1

Now as for paragraphs 125 and 126, and 1) regarding the FCC establishing new rules on exposure to ultra high frequencies above 100 GHz, FCC standards are still based on how this might affect that SAR model of a human head. It doesn't address insects or other life. And it turns out we need insects, not only for the web

of life if we want to live in a world that has other creatures in it and we don't want to be depressed or live in a vacuous cyber-world. We also need insects if we want to eat, because we need pollinators to grow crops. Moreover, powering these frequencies and putting them into effect on a large scale, before waiting for health tests, would show an incredible disregard for what we do not know. This arrogance will have an enormous cost, as it does with the lower frequencies. The FCC acknowledges that RFR causes heating, and adding more of this will impact climate change, especially if thousands of satellites are beaming it. It has already been shown to disrupt weather data gathering.

We have got to stop relying on research sponsored by the telecom industry and others with vested interests, as their research amounts to PR. If you ask bad questions, ones designed to protect the financial interests of your client, then your studies will yield bad results. As Dr Martin Blank documented in his book, Overpowered: "Since 1990, [Dr Henry] Lai has been tracking the studies of the health effects of RF radiation on humans published around the world. He has hundreds of such studies in his database. Approximately 30% of the studies are funded by the wireless industry and 70% are funded by other sources that are presumably more independent…Of the industry studies, 27% demonstrated a biological effect in humans resulting from RF exposure; whereas independently funded studies found such effects in 68% of the studies. As Lai explains, 'a lot of the studies that are done right now are done purely as PR tools for the industry'."

We also cannot rely on just what optimistic physicists and engineers say, as they discount biological effects which are ordinarily outside their focus on thermal effects. Yet even The Institute of Electrical and Electronics Engineers (IEEE), which Wikipedia describes as: "the world's largest association of technical professionals with more than 423,000 members in over 160 countries around the world," has research acknowledging biological effects from RFR.

Link hereby incorporated by reference:

Please see the recent article "Electromagnetic Radiation Due to Cellular, Wi-Fi and Bluetooth Technologies: How Safe Are We?" in which the authors measure today's RFR, compare it to recommended exposure limits, find those limits deficient by orders of magnitude, and recommend hardwired technology instead of wireless.

https://ieeexplore.ieee.org/search/searchresult.jsp?newsearch=true&queryText=Electromagnetic%20Radiation%20Due%20to%20Cellular,%20Wi-Fi%20and%20Bluetooth%20Technologies:%20How%20Safe%20Are%20We

Of critical importance is that the FCC's criteria for establishing limits is based on thermal effects, and the FCC has used this as its sole measure of harm since 1996, making the United States unsafe because it lacks pertinent guidelines for its population with regard to biological effects from Electromagnetic Radiation (EMR), including Radiofrequency Radiation (RFR). The International Commission on Non-Ionizing Radiation Protection (ICNIRP) also makes the same mistake, but on a global scale, and has done so since 1998.

The IEEE journal article above, after stating how the ICNIRP ignores biological effects of EMR, adds: "there are several standards prescribed by medical bodies such as the Building Biology, BioInitiative, and Austrian Medical Association Standards. These limits have been arrived at after extensive scientific research of thermal, non—thermal, chronic exposure, and biological effects carried out by health experts from across the world. On comparing these limits with those prescribed by the ICNIRP, it can be seen that the limits prescribed by the medical bodies are several orders of magnitude lower than those prescribed by the ICNIRP."

It should be noted that the above paper is headed by Dr Mohsen Guizani, an IEEE Fellow, with a long a prestigious career. He is a distinguished world leader in technical and computer engineering. His team pinpoints real-world exposures to specific wireless devices and their cumulative radiation levels to points on the human body. The health hazards are detailed, including but not limited to neurological damage, neuro-psychiatric issues, dementia, Alzheimers's, Autism, ADS, cancer, abnormal gene transcriptions, genotoxicity, DNA damage, decreased sperm morphology, seizures, eye damage, ear damage, effects upon pregnancy, infertility, childhood development, blood disorders, mental health, and the list goes on. The way we use our technology is a big problem. As Dr Guizani notes, It has already been several years since the wireless-technologies have been deployed, meaning that the public has already been exposed to a lot of harmful EMR without their knowledge." Wired solutions are available. (Electronics manufacturers need continue to allow their products to be accessed by ethernet cables so they may put put in airplane mode and used far more safely.) Also, "proactive prevention techniques can be adopted in environments such as households, schools and

hospitals to greatly minimize EMR exposure." The FCC needs to warn the public by instituting standards that are relevant to present-day use of technology. Without the FCC having relevant guidelines, state departments of health throughout the United States will continue to ignore the problem and people will continue to get sick.

Additionally, the FFC could use the methodology in Dr Guizani's study in the same way his team did, by testing each device and measuring its RFR in relation to how it is used by end-users. Cell phones are currently measured in an impossible distance from the user's head. Each device sold needs to have its radiation measurement displayed outside of the package at point-of-sale, with an explanation and in concert with each state's Departments of Health and the US Surgeon General, with the state DOH educating users and the Surgeon General assigning labels much like the ones used for tobacco products, in prominent display. A cell phone should have its radiation measurement plus a label warning that it has been shown to cause "clear evidence of cancer," for example. But instead of SAR, its safety must meet a biological standard for safety as determined by an independent medical group not related to or influenced by the technology industry in any way, or harboring other conflicts of interest.

Incidentally, I had the honor of co-hosting Dr Annie J. Sasco, distinguished epidemiologist and former unit chief of the International Agency for Research on Cancer (IARC), who was visiting from France in May 2019. She has five degrees, two of them from Harvard, and is an MD, DrPH, SM, PhD, and other accolades. I've never seen such accomplishment. Dr Sasco is also the retired Director of Research at the INSERM, which is like a French National Institutes of Health. She did not charge a fee for her efforts. She spoke at the State House in Providence, Rhode Island, in the Senate Lounge. She strongly warned against adding 5G on top of 3G/4G technologies due to its hazard to health. An astounding woman with complete integrity. She is aware that 5G will hurt children and is educating people because we need to stop it, now. 3G and 4G are hurting children already; adding to that damage is unconscionable.

We also went with Dr Sasco to a US Senator's local office and our Rhode Island Department of Health. Senator Whitehouse's office is still in denial as he pretends to be environmentally conscious, indeed, the most vocal representative in the Senate regarding climate change. The senator denies RFR does harm, as if the one thing that the FCC actually admits RFR does, heat things, is unimportant in global

warming as it is beamed from satellites to Earth, heating it up. The DOH seems to be waiting, as we all are, for the FCC (or its parroting brother, the FDA), to act responsibly and do its assigned job of protecting the public and updating safety standards for RFR.

1G, 2G, 3G, 4G, 5G, 6G, 7G…all of these and future names for RFR need to have biological effects taken into account by independent medical bodies and not by those with vested interests, financial or otherwise. You must start over, re-evaluate how all Electromagnetic Radiation (EMR) effects all life on earth.

Question 2

I am opposed to the FCC allowing manufacturers to average the radiation output of consumer devices over time. We do not want to be like the ancient Greeks, who mulled wine in lead-lined pots and poisoned themselves, possibly bringing down their civilization as a result. We should not, drunk with the possibilities and conveniences of technology, allow RFR to harm our brains.

Link hereby incorporated for reference:

https://www.sciencedirect.com/science/article/pii/S0891061815000599?via%3Dihub

"Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression," Martin L. Pall, 9 August 2015, Journal of Chemical Neuroanatomy.

I cite this article again by Dr Pall. Having EHS, I know how RFR can make my brain feel, and my eyes. My brain feels like it has been punctured by a thousand needles and left ragged after intense exposure like at the Peace Dale Library job, from its nearby transmitter. My eyes feel pressure and are sore. The spikes from people watching video on the library's computers have caused me great harm. The very idea of giving the industry the leeway to make the rules on this is unconscionable. This "Wild West" of lawlessness for industry has got to stop now.

What is astounding is how relatively primitive the tests are for determining so-called "safety" and yet how unknown the very beast—RFR— is, that the FCC is trying to gage.

What is apparent to me, because I have a device for measuring RFR in order to avoid it as best I can, is that spikes occur that go off the charts of my RFR measuring tool. I will be measuring a lower level, say 1.0 V/m, and it will jump

past 6 V/m. I cannot determine if it's a National Grid truck reading meters as it rolls by, or a single smart meter or several in unison unloading information, or the water meters or waste water pump station antenna nearby. But it is a big bolt of radiation, and this must cause damage to biological systems and human health. Since I've had my smart meter removed, through a deliberate and drawn-out process by which I am charged more than other customers, I have still recorded these spikes. Thus, I think the meters may unload in unison, as the utility company, blissful in its willful ignorance (or concealment) since it doesn't acknowledge a problem from RFR, could care less if they all go off at once.

To the technology companies: do you really think that people want their health ruined by your products? Have you ever questioned yourselves?

I've questioned myself a million times and turned over every stone. And yes, I now know RFR affects my health.

Source hereby incorporated by reference:

It's too bad we don't have **Carl Sagan** with us any more to sort out the science for us. In "The Demon-Haunted World, Science as a Candle in the Dark," Ballentine Books, 1996, pp. 216-17. Sagan examined a similar industry to Big Tech, with an identical problem, the very one you're trying to solve right now.

"The American tobacco industry grosses some $50 billion per year. There is a statistical correlation between smoking and cancer, the tobacco industry admits, but not, they say, a causal relationship…When the first work was published in the scientific literature in 1953 showing that the substances in cigarette smoke when painted on the backs of rodents produce malignancies, the response of the six major tobacco companies was to initiate a public relations campaign to impugn the research, sponsored by the Sloan Kettering Foundation. This is similar to what the Du Pont Corporation did when the first research was published in1974 showing that their Freon product attacks the protective ozone layer. There are many other examples…You might think that before they denounce unwelcome research findings, major corporations would devote their considerable resources to checking out the safety of the products they propose to manufacture. And if they missed something, if independent scientists suggest a hazard, why would the companies protest? Would they rather kill people than lose profits? If, in an uncertain world, an error must be made, shouldn't it be biased toward protecting customers and the public? And, incidentally, what do these cases say about the ability of the free enterprise system to police itself? Aren't these instances where at least some

governmental intrusion is in the public interest?" Not according to industry, which tried to change the minds of people, saying that smoking causing health damage is "a conviction based on fanatical assumptions, fallacious rumors, unsupported claims…the greatest libel and slander ever perpetrated against any product in the history of free enterprise…"

You may call this progress, but we've come nowhere.

The questions posed by this very inquiry proves that nothing has changed.

Except perhaps the technology industry has gotten savvier, and more vicious. Attacks on electrosensitive people are made in subtle ways, or in more overt, as in HBO's series "Better Call Saul," how ridiculous crazy "tin-hat wearing" electrohypersensitive people might kill themselves. The story of technology safety is promulgated through every means industry has, including the ones that are meant to protect the public, like the FCC.

Links hereby incorporated by reference:

https://www.spandidos-publications.com/10.3892/ijo.2017.4046#

"World Health Organization, radiofrequency radiation and health – a hard nut to crack (Review)," by Lennart Hardell, in the International Journal of Oncology 51: 405-413, 2017.

Link hereby incorporated by reference:

https://ethics.harvard.edu/files/center-for-ethics/files/capturedagency_alster.pdf

"Captured Agency: How the Federal Communications Commission Is Dominated by the Industries It Presumably Regulates"

Our esteemed organizations—and not just one of them—have fallen to corruption. My great hope is that you, reader, will help redeem the FCC.

I am opposed to changes which allow manufacturers to produce wireless devices that govern their own radiation power output, especially for notebooks and tablets. These devices are frequently used by children who, according to the International Agency for Research on Cancer (IARC) and the American Academy of Pediatrics, are more vulnerable to RF radiation than are adults.

Before introducing any new products or expanding into any new frequencies, the very frequencies we already use, and the equipment we use with them, need to be

made safer, and this leadership needs to come from the FCC. They need to be made safer not just for people with EHS, or children, or the elderly, or the already ill, but for all people. “Right to know” labels warning that these devices have been found to cause cancer, need to be visible at point-of-purchase, as we have with cigarettes. Other warnings could also be displayed: “May cause low birth weight” and the like. The FCC can no longer delay establishing new guidelines for RFR that take into account its myriad biological effects.

Also, I have noticed possible conflicts-of-interest firsthand. I was diagnosed with boarderline sleep apnea and purchased a machine. That machine produced large amounts of both Magnetic Frequencies (measured in mG), and RFR (which my device measures in V/m but which can be converted to other metrics). It is possible that RFR causes sleep apnea in the first place, by harming the central nervous system and its regulation of the pulmonary system. By renting or selling a device which makes this condition worse, the seller of the machine ensures the product will serve shareholders by ensnaring the customer. The customer will not know this relationship. This is much like the pharmaceutical companies getting doctors to prescribe oxycontin which is addictive and giving the doctor a kickback, all the while getting the shareholders more money from the repeat customer, an addict. If one is knowledgeable enough to put the machine in airplane mode, a user can improve the radiation levels and use an SD card. Consumers need to be aware of this feature and why it is needed, and why both the feature and labelling must be included on the machine, pre-purchase by law.

This is not far-fetched. This is our world, the one we’ve been lulled into accepting.

I strongly oppose the proposed change to allow manufacturers to produce wireless devices that govern their own radiation power output. This would be especially detrimental as in the earlier article by Mohsen Guizani, the IEEE Fellow, where he tested devices for radiofrequency radiation, and found that laptops with Wi-Fi, due to their type of antennas, create a dangerous amount of radiation. Notebooks and tablets are frequently used by children. Children, according to the American Academy of Pediatrics and the IARC, are more vulnerable to radiation than are adults.

I also agree with the American Academy of Pediatrics in that the current testing does not reflect the way that the devices are used today. The IEEE article also supports this, and shows how the cumulative effect of different devices, used

together, can increase radiation levels exponentially, as can having several laptops used together in a classroom.

Averaging radiation limits is also dangerous when smart utility meters give very high, periodic blasts of radiation. These bursts can wake a person up during the night, effecting their health by both lack of sleep and damage to the brain and other cells.

Question 3

The FCC wants to know how it should consider the implications of wireless power transfer in paragraphs 141-143. This would entail charging devices at a distance of greater than 50cm. Since charging at a distance can create an RF field in three dimensions, with varying beam shape depending on product design, what parameters should be used?

This idea is horrifying. Electrically charging the air, so people can remotely charge their devices, because they can't be inconvenienced to plug it in, is insane.

Charging batteries is already a problem as we do it now. It creates dirty energy on the wiring of homes, schools, and businesses, making people less healthy.

You can look at the studies, but another author has criticized them due to methodology. Yet industry and government are the only ones who can afford studies of larger magnitude and quality but have conflicts of interest.

So, will we bother to protect health by actually doing the work and refereeing industry studies that do pre-market safety testing? That's what needs to be done.

Giving people arrythmia, cardiac arrest, and myriad other problems over something so petty as battery-charging is so repugnant.

It all brings us to the real question here.

Today, human beings are condemned by the tech industry and the FCC.

We must prove our "innocence" or be found guilty.

We must prove what the powerful should have to prove.

We must prove that the wireless devices that surround us are not safe, when it should be that the company introducing the device must prove that it is safe by doing unbiased pre-market safety testing. This pre-market testing, currently not effectually required because the current RFR standards are meaningless, must be

quality checked by an independent party. But this independent party, the FCC, must not be controlled by the device manufacturers.

But the FCC is controlled by the device manufacturers.

The fate, the very integrity of the DNA of our children and their children, depends upon the FCC changing.

So, as the IEEE Fellow asked and answered in his article: How Safe Are We?

We're not.

Until the FCC changes, it is the renegade police officer kneeling on the handcuffed person's neck.

If we want a healthy society with healthy people, our institutions need to be healthy and strong, free of conflicts of interest. These institutions must place people over profit. Please change your institution.

I demand that you change your radiofrequency standards and guidelines to take into account harmful effects from anthropogenic radiofrequency radiation and electromagnetic radiation on humans, animals, wildlife, insects, plants, trees, and the environment.

Thank you for reading.

Stephen R Dahl