

**Subject: EMF Updates**

**Date: August 2, 2020**

Ladies & Gentlemen,

The evidence is incontrovertible. As regularly noted, the United Nations is firmly behind the global deployment and control of microwave electromagnetic technology and artificial Intelligence which will radiate the entire planet and every living organism on it.

The ever deepening reach into the lives of every country and human being by the United Nations is evidenced by the events in The United States and Ireland.

According to Dave Hodges of the Common Sense show

(<https://thecommonsenseshow.com/agenda-21-conspiracy-economics/major-breaking-story-un-orders-trump-withdraw-federal-agents-portland>), President Trump was instructed to withdraw fewer troops for troubled Portland, Oregon. Days later he announced that he would withdraw troops after the disturbance in Portland had passed.

In Ireland, on the country's historic remembrance day of Irish Independence, Easter Sunday and the Easter Rising of 1917, the Irish Government flew the U.N. flag over the flash point of the revolution, the General Post office in solidarity with the victims of Covid-19. Subsequently, the Irish Government spent nearly 1 million euros in a campaign to join the United Nations Security Council. Recently the government began flying the U.N. flag over Irish government buildings.

The significance of events in both the United States and Ireland is the emerging subservience of sovereign countries to the unelected, voluntary United Nations.

***Demonstration in Dublin - are these the values of the U.N.?***



<https://www.broadsheet.ie/2020/07/25/warning-signs/>

We are witnessing the emergence of a new global government.

Nowhere is this more evident than the roll-out of 5G technology which is being promoted by the United Nations. (See below.)

The significance of events in both the United States and Ireland is the emerging subservience of sovereign countries to the unelected, voluntary United Nations.

Left unchallenged, the world could be left with a dystopian existence of total surveillance and a technology which is based on military-grade weaponry. View the possibilities in the following video:

**Breaking: Directed energy from death towers linked to severe illness - new 5G radiation warnings (2020-07-08)**

[https://www.youtube.com/watch?v=ye\\_vBUUw6oo](https://www.youtube.com/watch?v=ye_vBUUw6oo)

This is not fiction. The technology already exists and is being marketed. As an example see the item (below) forwarded by Patricia Burke regarding the introduction of the first 5G bus by ATAC, Fastweb and Ericsson.

Please circulate widely.

John Weigel

Ireland

## **Updates**

**From Peter Nielsen, Australia**

## 'No 5G' new political party

Ready to take action? The following announcement has been received of a new political party forming within Australia. Membership is open to anyone, even if already registered with another party and wish to retain that affiliation as well. Visit their website below to join or make inquiries.

<https://www.no5ginc.org.au/>

### EMR Aware Australia



<https://www.emraware.com/index.html>

### How government entities use geolocation data to identify everyone

An [infographic](#) from the Future of Privacy Forum describes how mobile devices such as smartphones interpret signals from their surroundings – including GPS satellites, cell towers, Wi-Fi networks, and Bluetooth – generate a precise location measurement (latitude and longitude).

[https://www.shtfplan.com/headline-news/how-government-entities-use-geolocation-data-to-identify-everyone\\_07302020](https://www.shtfplan.com/headline-news/how-government-entities-use-geolocation-data-to-identify-everyone_07302020)

## **Bill Gates & Congressman negotiated 'tracing deal' BEFORE COVID-19 panic**

This measurement is provided by the mobile operating system to mobile apps through a Location Services API when they request it and receive the user's permission. As a result, apps must comply with the technical and policy controls set by the mobile operating systems, such as App Store Policies.

[https://www.shtfplan.com/headline-news/bill-gates-congressman-negotiated-tracing-deal-before-covid-19-panic\\_06112020](https://www.shtfplan.com/headline-news/bill-gates-congressman-negotiated-tracing-deal-before-covid-19-panic_06112020)

## **The worst is yet to come: Contact tracing, immunity cards and mass testing**

Many different entities (including, but not limited to mobile apps) provide location features or use location data for a variety of other purposes. Different entities are subject to different restrictions, such as public commitments, privacy policies, contracts and licensing agreements, user controls, app store policies, and sector-specific laws (such as telecommunications laws for mobile carriers). In addition, broadly applicable privacy and consumer protection laws will generally apply to all commercial entities, such as the California Consumer Privacy Act, or the Federal Trade Commission Act.

[https://www.shtfplan.com/headline-news/the-worst-is-yet-to-come-contact-tracing-immunity-cards-and-mass-testing\\_05152020](https://www.shtfplan.com/headline-news/the-worst-is-yet-to-come-contact-tracing-immunity-cards-and-mass-testing_05152020)

*From Cece Doucette, Massachusetts for Safe Technology*

## **City of Boston files official Comment with the FCC**

The City of Boston has recently filed an official Comment with the FCC on a related matter stating, "Boston believes that the concerns of the public are real and that the Commission has done a disservice to itself, local government, consumers, and even the wireless industry in failing to understand and respond to the broadly shared mistrust of the safety of RF emissions." See the [full submission here](#).

[https://img1.wsimg.com/blobby/go/18add696-2410-4f74-a623-35ee3c12832d/downloads/FCC%2019-226%20COMMENTS\\_BostonMA.pdf?ver=1592952452329](https://img1.wsimg.com/blobby/go/18add696-2410-4f74-a623-35ee3c12832d/downloads/FCC%2019-226%20COMMENTS_BostonMA.pdf?ver=1592952452329)

*Dr. Karl Moore, physicist, Ireland, interview*

## **Prof. Olle Johansson: Electromagnetic radiation, 5G and health of the planet**

<https://anchor.fm/made-in-nature-podcast/episodes/Prof.-Olle-Johansson-Electromagnetic-radiation--5G-and-health-of-the-planet-ehboc0>



## **EMR Australia August 2020 Issue**

Don't miss the news in the August issue of *EMR and Health*. You'll be able to read about:

- a new study on how electromagnetic field affect children
- Australian and New Zealand scientists warning about the risks of 5G radiation
- Belgian doctors speaking out about 5G
- a new technique for diagnosing electromagnetic hypersensitivity
- the link between wireless radiation and lymphoma
- smart phones and fertility
- US doctors calling for safer standards
- research on the effects of 5G millimeter waves on cells, the effects of WiFi radiation on pregnancy and more.



## NIH admits 5G can actually CREATE coronavirus within human cells

*'New generation mobile technology, like 5G, could have the main role in constructing various types of viruses, such as Coronaviruses, within a cell,' says study*

An international study shared on the National Institute of Health [website](#) found that 5G technology is absorbed by skin cells and can alter DNA in a way that actually produces coronaviruses within the human body.

The study, jointly produced by scientists from Guglielmo Marconi University, Central Michigan University and First Moscow State Medical University, claims that 5G millimeter waves stimulate DNA in a way that causes cell nuclei to produce coronaviruses.

<https://www.newswars.com/nih-admits-5g-can-actually-create-coronavirus-within-human-cells/>

## WITHDRAWN: 5G technology and induction of coronavirus in skin cells

No authors listed

PMID: 32668870

Abstract

Ahead of Print article withdrawn by publisher.

<https://pubmed.ncbi.nlm.nih.gov/32668870/>

## 5G Technology and induction of coronavirus in skin cells

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### Abstract

In this research, we show that 5G millimeter waves could be absorbed by dermatologic cells acting like antennas, transferred to other cells and play the main role in producing Coronaviruses in biological cells. DNA is built from charged electrons and atoms and has an inductor-like structure. This structure could be divided into linear, toroid and round inductors. Inductors interact with external electromagnetic waves, move and produce some extra waves within the cells. The shapes of these waves are similar to shapes of hexagonal and pentagonal bases of their DNA source. These waves produce some holes in liquids within the nucleus. To fill these holes, some extra hexagonal and pentagonal bases are produced. These bases could join to each other and form virus-like structures such as Coronavirus. To produce these viruses within a cell, it is necessary that the wavelength of external waves be shorter than the size of the cell. Thus 5G millimeter waves could be good candidates for applying in constructing virus-like structures such as Coronaviruses (COVID-19) within cells.

<http://archive.is/lwrOz#selection-993.0-1035.1>

## WATCH LIVE: 5G and the induction of Coronavirus in skin cells



<https://www.infowars.com/watch-live-5g-and-the-induction-of-coronavirus-in-skin-cells/>

***From André Fauteux, editor / publisher, La Maison du 21e siècle Magazine***

**Related 2012 paper seems to correlate with withdrawn editorial**

***Extra-Low-Frequency Magnetic Fields alter Cancer Cells through Metabolic Restriction***

**Abstract**

BACKGROUND: Biological effects of extra-low-frequency (ELF) magnetic fields (MF) have lacked a credible mechanism of interaction between MFs and living material.

OBJECTIVES: Examine the effect of ELF-MFs on cancer cells.

METHODS: Five cancer cell lines were exposed to ELF-MFs within the range of 0.025 to 5  $\mu$ T, and the cells were examined for karyotype changes after 6 days.

RESULTS: All cancer cells lines lost chromosomes from MF exposure, with a mostly flat dose- response. Constant MF exposures for three weeks allow a rising return to the baseline, unperturbed karyotypes. From this point, small MF increases or decreases are again capable of inducing karyotype contractions. Our data suggests that the karyotype contractions are caused by MF interference with mitochondria's ATP synthase (ATPS), compensated by the action of AMP- activated protein kinase (AMPK). The effects of MFs are similar to those of the ATPS inhibitor oligomycin. They are amplified by metformin, an AMPK stimulator, and attenuated by resistin, an AMPK inhibitor. Over environmental MFs, karyotype contractions of various cancer cell lines show exceptionally wide and flat dose-responses, except for those of erythro-leukemia cells, which display a progressive rise from 0.025 to 0.4  $\mu$ T.

CONCLUSIONS: The biological effects of MFs are connected to an **alteration in the structure of water** that impedes the flux of protons in ATPS channels. These results may be environmentally important, in view of the central roles played in human physiology by ATPS and AMPK, particularly in their links to diabetes, cancer and longevity.

Free download at <https://arxiv.org/abs/1209.5754>

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***Forwarded by Prof. Andrew Michrowski, P.A.C.E., Canada***

**Adverse health effects of 5G mobile networking technology under real-life conditions**

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#### **ABSTRACT**

This article identifies adverse effects of non-ionizing non-visible radiation (hereafter called wireless radiation) reported in the premier biomedical literature. It emphasizes that most of the laboratory experiments conducted to date are not designed to identify the more severe adverse effects reflective of the real-life operating environment in which wireless radiation systems operate. Many experiments do not include pulsing and modulation of the carrier signal. The vast majority do not account for synergistic adverse effects of other toxic stimuli (such as chemical and biological) acting in concert with the wireless radiation. This article also presents evidence that the nascent 5G mobile networking technology will affect not only the skin and eyes, as commonly believed, but will have adverse systemic effects as well.

<https://pubmed.ncbi.nlm.nih.gov/31991167/>

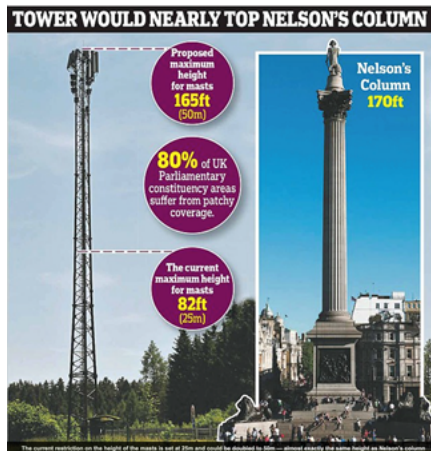
#### **Comment from Chris Gupta**

The Journal of Biological Regulations & Homeostatic Agents 5G induces coronaviruses' according to a new study just published on the US NIH (National Institute of Health) website [PubMed.gov](https://pubmed.ncbi.nlm.nih.gov/31991167/) and published earlier elsewhere. The study, entitled 5G Technology and induction of coronavirus in skin cells, comes to the shocking conclusion – shocking from a mainstream scientific viewpoint – that 5G technology can instigate the body to produce viruses as a cellular response. . Guess what? The 5G millimeter waves (so-called because they operate in extremely high frequencies where there is less than a millimeter between the wave peaks) can make the body produce not just any class of viruses but actually coronaviruses! This research peels back another layer of Operation Coronavirus, affirming the coronavirus 5G connection that I and others were warning about in February when this entire plandemic got off the ground. In that article I asked the question: What if 5G is being used to open up the skin of those in Wuhan so as to allow the new bioweapon coronavirus to infiltrate more easily? Now with more information the question could be: What if 5G is being used to open up the skin and simultaneously create coronaviruses?

#### **Breaking: Covid-linked to 5G frequencies according to Pubmed study - induction of Covid in skin cells (2020-07-08 )**

[https://www.youtube.com/watch?v=jlgUJZ7d\\_Po](https://www.youtube.com/watch?v=jlgUJZ7d_Po)

**5G phone(?) masts as high as Nelson's Column will be allowed WITHOUT full planning permission**



- To speed up 5G spread, masts can be put up without full planning permission
- The phone masts could also be allowed to be the height of Nelson's Column
- However, there are fears that the masts could blight Britain's countryside

<https://www.dailymail.co.uk/news/article-8551743/Mobile-phone-masts-high-Nelsons-Column-allowed-without-planning-permission.html>

## **[in]brace is a wearable device that uses tongue movement to interact with computers**

as part of her master's thesis in integrated design, dorothee clasen has created an intra-oral wearable that allows a tongue-based interaction between human and machine. when [in]brace is placed inside the mouth, users can move a small magnetic element back and forward with their tongue to generate an input. the wifi module behind the user's ear then transfers the given input to other connected devices, such as IoT devices, computers or game consoles.

[https://www.designboom.com/technology/inbrace-tongue-based-interaction-between-human-and-machine-07-28-2020/?utm\\_source=designboom+daily&utm\\_medium=email&utm\\_campaign=%5Bin%5Dbrace+is+a+wearable+device+that+uses+tongue+movement+to+interact+with+computers](https://www.designboom.com/technology/inbrace-tongue-based-interaction-between-human-and-machine-07-28-2020/?utm_source=designboom+daily&utm_medium=email&utm_campaign=%5Bin%5Dbrace+is+a+wearable+device+that+uses+tongue+movement+to+interact+with+computers)

***From Silvia Zeppieri, Italy***

## **Mayors will no longer be able to say no to 5G**

The measure is included in the Simplifications decree: the State decides on the matter. Meanwhile, the TAR suspended the ordinance of the Municipality of Messina against the new generation antennas

Mayors will not be able to introduce limitations to 5G on their territory. The measure is contained in the Simplifications decree, also implemented by the government to accelerate digital innovation. A measure that brakes the ordinances of local administrators opposed to the installation of the fifth generation antennas. "In this way, the government overturns the mayors who represent the highest local health authority and who therefore have responsibility for the health of citizens", argues the mayor of Vicenza, Francesco Rucco, who had signed a blocking order in May. While in Turin in the last few days the first 5G Planning Board met "to draw up the paths of adoption of the new standards".

[https://www.lastampa.it/tecnologia/news/2020/07/22/news/i-sindaci-non-potranno-piu-dire-no-al-5g-1.39112830?refresh\\_ce](https://www.lastampa.it/tecnologia/news/2020/07/22/news/i-sindaci-non-potranno-piu-dire-no-al-5g-1.39112830?refresh_ce)

## **Here's how Elon Musk plans to put a computer in your brain**



## To hear Musk tell it, Neuralink's hardware is either a state-of-the-art tool for understanding the brain, a clinical advance for people with neurological disorders, or the next step in human evolution

**ELON MUSK DOESN'T** think his newest endeavor, revealed Tuesday night after two years of relative secrecy, will end *all* human suffering. Just a lot of it. Eventually.

At a presentation at the California Academy of Sciences, hastily announced via Twitter and beginning a half hour late, Musk presented the first product from his company Neuralink. It's a tiny computer chip attached to ultrafine, electrode-studded wires, stitched into living brains by a clever robot. And depending on which part of the two-hour presentation you caught, it's either a state-of-the-art tool for understanding the brain, a clinical advance for people with neurological disorders, or the next step in human evolution.

The chip is custom-built to receive and process the electrical action potentials—"spikes"—that signal activity in the interconnected neurons that make up the brain. The wires embed into brain tissue and receive those spikes. And the robotic sewing machine places those wires with enviable precision, a "neural lace" straight out of science fiction that dodges the delicate blood vessels spreading across the brain's surface like ivy.

[https://www.wired.com/story/heres-how-elon-musk-plans-to-stitch-a-computer-into-your-brain/?bxid=5cc9e1372ddf9c1a7ade36ad&bxid=5cc9e1372ddf9c1a7ade36ad&cndid=56670833&cndid=56670833&esrc=bounceX&esrc=bounceX&hasha=88a8e629cb4b62109c097d033c9957d0&hasha=88a8e629cb4b62109c097d033c9957d0&hashb=0b254bf8f04ed6d1b0d9f3ce6b1b72c6a99fb6c2&hashb=0b254bf8f04ed6d1b0d9f3ce6b1b72c6a99fb6c2&hashc=fe4f69faa02bdc57fe8eafb294b9469a543b4b0b99ff162eb1154d4c9284bb92&hashc=fe4f69faa02bdc57fe8eafb294b9469a543b4b0b99ff162eb1154d4c9284bb92&source=EDT\\_WIR\\_NEWSLETTER\\_0\\_ENGAGEMENT\\_ZZ&source=EDT\\_WIR\\_NEWSLETTER\\_0\\_ENGAGEMENT\\_ZZ&utm\\_brand=wired&utm\\_brand=wired&utm\\_campaign=aud-dev&utm\\_campaign=aud-dev&utm\\_mailing=WIR\\_Classics\\_072320&utm\\_mailing=WIR\\_Classics\\_072320&utm\\_medium=email&utm\\_medium=email&utm\\_source=nl&utm\\_source=nl&utm\\_term=WIR\\_Daily\\_TopClickers&utm\\_term=WIR\\_Daily\\_TopClickers](https://www.wired.com/story/heres-how-elon-musk-plans-to-stitch-a-computer-into-your-brain/?bxid=5cc9e1372ddf9c1a7ade36ad&bxid=5cc9e1372ddf9c1a7ade36ad&cndid=56670833&cndid=56670833&esrc=bounceX&esrc=bounceX&hasha=88a8e629cb4b62109c097d033c9957d0&hasha=88a8e629cb4b62109c097d033c9957d0&hashb=0b254bf8f04ed6d1b0d9f3ce6b1b72c6a99fb6c2&hashb=0b254bf8f04ed6d1b0d9f3ce6b1b72c6a99fb6c2&hashc=fe4f69faa02bdc57fe8eafb294b9469a543b4b0b99ff162eb1154d4c9284bb92&hashc=fe4f69faa02bdc57fe8eafb294b9469a543b4b0b99ff162eb1154d4c9284bb92&source=EDT_WIR_NEWSLETTER_0_ENGAGEMENT_ZZ&source=EDT_WIR_NEWSLETTER_0_ENGAGEMENT_ZZ&utm_brand=wired&utm_brand=wired&utm_campaign=aud-dev&utm_campaign=aud-dev&utm_mailing=WIR_Classics_072320&utm_mailing=WIR_Classics_072320&utm_medium=email&utm_medium=email&utm_source=nl&utm_source=nl&utm_term=WIR_Daily_TopClickers&utm_term=WIR_Daily_TopClickers)

## How to check your devices for stalkerware

*You deserve privacy. Here's how to check your phone, laptop, and online accounts to make sure no one's looking over your shoulder.*

**WHETHER IT'S A** prying boss or a paranoid partner, no one should snoop on your phone or laptop. But that's exactly what can happen if stalkerware somehow gets installed on your devices. These software tools are designed to be hidden and difficult to detect, but you can find them if you know how.

There's a wide range of scenarios here, from friends playing pranks to partners being abusive. If you're in a relationship where you feel trapped and afraid, help is available from the National Domestic Violence Hotline, the Coalition Against Stalkerware, and many other places—please reach out.

[https://www.wired.com/story/how-to-check-for-stalkerware/?bxid=5cc9e1372ddf9c1a7ade36ad&cndid=56670833&esrc=bounceX&source=EDT\\_WIR\\_NEWSLETTER\\_0\\_DAILY\\_ZZ&utm\\_brand=wired&utm\\_campaign=aud-dev&utm\\_mailing=WIR\\_Daily\\_072020&utm\\_medium=email&utm\\_source=nl&utm\\_term=list1\\_p4](https://www.wired.com/story/how-to-check-for-stalkerware/?bxid=5cc9e1372ddf9c1a7ade36ad&cndid=56670833&esrc=bounceX&source=EDT_WIR_NEWSLETTER_0_DAILY_ZZ&utm_brand=wired&utm_campaign=aud-dev&utm_mailing=WIR_Daily_072020&utm_medium=email&utm_source=nl&utm_term=list1_p4)



## iPhone 12: all your questions answered

This year's iPhone range is going to represent the biggest and most consequential update in several years. Here's everything you need to know about the iPhone 12.

<https://5g.co.uk/guides/iphone-12-all-your-questions-answered/>

## 82% of broadcasters predict 5G will replace satellites for TV access

A recent global survey of TV broadcasters, conducted on behalf of Nevion, has revealed some eye-opening predictions ...

<https://5g.co.uk/news/5g-will-replace-satellites-for-tv-access/5358/>

## UK mobile networks banned from buying Huawei 5G equipment by end of 2020

In a sense, Huawei will never be completely removed from the UK as the company can still sell its mobile phones to consumers.

<https://5g.co.uk/news/uk-mobile-networks-banned-from-buying-huawei-5g-equipment-by-end-of-2020/5354/>

## **BT is playing a big role in smart manufacturing powered by 5G**

BT will use its expertise to make “intelligent, dynamic and fully automated manufacturing processes a reality”.

<https://5g.co.uk/news/bt-smart-manufacturing-powered-5g/5362/>

## **Institution of Engineering and Technology: 5G no danger to health**

The report makes four key observations. First, that 5G technology is very similar to 4G in terms of how it affects radio wave exposure.

<https://5g.co.uk/news/iet-5g-no-danger-to-health/5352/>

## **Israeli farmers sue the military over its Iron Dome air defense system, alleging ‘radiation exposure’ and a ‘land grab’**

The Iron Dome intended to protect Israel from Hamas missiles launched sporadically from the Gaza Strip has led to a lawsuit by farmers, who say they’ve suffered from its radiation and from ‘occupation’ of their agricultural lands.

The Iron Dome anti-missile system was set up near a collective farm, or kibbutz, in 2012. The exact location of the farm somewhere in the Negev desert has not been revealed.

Now people living in the kibbutz are demanding monetary compensation from IDF for exposure to “very strong” radiation from the anti-missile radars.

<https://www.rt.com/news/495402-israeli-farmers-sue-military/>

## **Apple’s hackable iPhones are finally here**

*Last year, Apple announced a special device just for hackers. The phone—for approved researchers only—will soon go into circulation.*

**LAST AUGUST, APPLE** announced that it would distribute special iPhones to elite security researchers. The idea was to offer a device that had fewer constraints, allowing researchers to home in on security vulnerabilities more easily, without first having to work around standard iOS defenses. Starting today, you can apply to get your hands on one.

Apple is opening its security research device program to analysts with an established track record of finding iOS bugs, as well as those with expertise in other platforms who want to start on iOS. The company will loan the devices for a year with the possibility to renew, and participants will also gain access to new security forums focused on the devices. If researchers “find, test, validate, verify, or confirm” a vulnerability using one of the special iPhones, they must report it to Apple—and any relevant third parties—under the terms of the loan agreement.

[https://www.wired.com/story/apple-hackable-iphone-research/?bxid=5cc9e1372ddf9c1a7ade36ad&cndid=56670833&esrc=bounceX&source=EDT\\_WIR\\_NEWSLETTER\\_0\\_DAILY\\_ZZ&utm\\_brand=wired&utm\\_campaign=aud-dev&utm\\_mailing=WIR\\_Daily\\_072320&utm\\_medium=email&utm\\_source=nl&utm\\_term=list1\\_p4](https://www.wired.com/story/apple-hackable-iphone-research/?bxid=5cc9e1372ddf9c1a7ade36ad&cndid=56670833&esrc=bounceX&source=EDT_WIR_NEWSLETTER_0_DAILY_ZZ&utm_brand=wired&utm_campaign=aud-dev&utm_mailing=WIR_Daily_072320&utm_medium=email&utm_source=nl&utm_term=list1_p4)

## **Here’s every city with 5G network coverage in the world (regularly updated)**

Designed to greatly bolster the speed and responsiveness of wireless networks, the fifth iteration of cellular technology “5G” is a massive upgrade. Notably, 5G can exceed wireless network speed and deliver latency of 1 millisecond (ms) or lower which makes it a boon for [sharing large files](#), downloading and uploading content, and playing [online games](#). Whether you have already jumped on the fast-paced 5G train or are willing to get on board, you should know the complete list of cities which have 5G network in the world, considering it’s not yet rolled out everywhere.

<https://beebom.com/cities-5g-network-world-list/>

## **July 2020 report by Deborah Tavares**



<https://www.youtube.com/watch?v=n1wH342m2RE>

***From Dave Watkins. Edgewater, Florida***

### **One man's story... 'pain & weakness just from being on this computer'**

For what it's worth with all of this information coming and going here. I have worked in electronics and communications systems from component level up to system level for over 50 years. Both design and maintenance. Thirty five of those years in ground communications at John F. Kennedy Space Center here in Florida. I also had several years as a commercial broadcast station engineer until the R.F. from the transmitter made it impossible to continue in this work. I retired from it all in 2003 on disability from a lot of related things. I am very highly adversely reactive to almost all frequencies from below 60 Hz up to over 3 GHz and above. Pain and weakness just from being on this computer. Digital pulses, or also what is commonly referred to by laymen as, "dirty electricity" are far worse on me than sine wave EMF's, just as Dr. Goldsworthy says. I can attest to all of his findings as being completely correct. Even though I do not have a Ph.D. in such things, I have to live with the results on a daily basis, and have the solid electrical and electronic background to understand what is happening and how to deal with it as best I can. Thank you Dr. Goldsworthy for making the medical/biological end a lot clearer. I once was out in Dallas, Texas in order to get help and testing from Dr. Rea in 2003. I had a girl friend drive me out there. One Sunday we were going down an interstate highway when high tension lines on huge steel towers appeared on our right. A little further on they appeared as well on the left. By then I had a severe headache. Then we passed under several sets of these lines on huge steel towers and my head felt like it was about to explode, and I could physically feel heat boiling off of my head. By then I was screaming in pain and had her make a U turn and get back where we came from as fast as possible. She looked at me and said my whole head was cherry red. We got back to where we were staying in Seagoville outside of Dallas, and don't remember much of anything after that. I was pulling my hair out by the roots. She said I was screaming almost all night. The next day we had an appointment with Dr. Rea for further evaluation and tests. I could tilt my head from side to side and actually felt my brain moving from side to side in the cranial cavity along with gurgling noises. Dr. Rea noticed large red splotches all over my face and head and after I related what had happened the day before, he cancelled the EMF tests he had me scheduled for as being too dangerous because of my condition and great sensitivity. I had come to the conclusion that under those power lines I was literally being cooked alive, and my brain had swollen up greatly. Overnight it shrunk back down, but then was surrounded by a lot of fluids which were causing the gurgling noises. Suffice it to say, 60Hz did a real number on me. There must have been a combined voltage in those overhead lines well over a couple of million volts A.C. 60Hz. Since those days I am doing much better, and studiously avoid such radical exposures or anything close, except there is a 7,500 volt primary feeder behind my house that I cannot escape. I do wake up in pain most days from that, even though all power is turned off in the house overnight. One of the things that I have found greatly alleviates the problem is to stay away from allergic foods as much as possible, and anything that causes inflammatory reactions.. Under these conditions, the body retains salt and surrounds inflamed tissue with salty fluids. This in turn sets up a very good electrical conducting situation in these inflamed tissues by the means of electromagnetic induction from a nearby source of EMF. This in turn results in more inflammation as the result of the irritation of these tissues by minute current flow. And this in turn causes more inflammation and more conductivity. It's a vicious cycle. By keeping inflammation as low as possible, it greatly relieves EMF sensitivity. And at least, in my case,

eating spaghetti is the worst thing I can do prior to EMF exposure. It's the tomato sauce. In any case, here is something to think about anyhow, and I thank all of you for your very interesting input on these things, and the work fighting the proliferation of more sources of EMF pollution. I hope this little bit of information contributes something useful to our work.

I can add one more bit of advice to that report I made.

For anyone that has a tendency toward chronic inflammation and electrical sensitivity, it would be to their benefit to keep to a **low salt diet** as well as to avoid inflammatory foods. This helped me greatly. It did not get rid of the problem, but it greatly alleviated a lot of it.

**From Dr. Andrew Goldsworthy, lecturer and Biological Safety Officer (ret.), Imperial College London**

### **It's all a case of passing the buck since no one wants to be held liable**

for the known health effects of mobile phone radiation, which could lead to charges of wilful negligence, corporate manslaughter or crimes against humanity.

They all shelter behind the ICNIRP guidelines that are based on heating effects only and are also way out of date. But when push comes to shove ICNIRP will deny all responsibility saying that they were only offering advice. The ultimate responsibility lies with the phone companies, the governments who welcome the taxes that they generate, school governors who promote WiFi in schools, and even the individuals who have become addicted to their smartphones. ICNIRP cannot or will not save any of them from the consequences of their actions. They are offering advice only, but are carefully dodging any legal consequences.

Of course, ICNIRP chooses to ignore the fact that on the heating effects alone their arguments are flawed. This is because the human body acts as an antenna that absorbs the energy of the radiation making internal currents to flow through it. But the vast bulk of the heat generated is concentrated in the high resistance of the cells' external membranes (which are only 10nm thick) and similar membranes in membrane-bound structures within the cells such as the mitochondria, lysosomes and the endoplasmic reticulum.

Damage to the mitochondrial membranes releases not just reactive oxygen species (ROS) that can damage DNA leading to cancer and loss of fertility but also releases the calcium ions stored within them to give calcium overload leading to EHS in some unfortunate individuals.

Another biologically important target for the heating effect is the high resistance membranes of the endoplasmic reticulum. This is a mass of flattened intercommunicating membrane bound sacs (cisternae) that permeate almost the whole of the cell outside the nucleus. This too normally stores calcium, which will be released to contribute to EHS.

But that is not all. The endoplasmic reticulum plays a vital role in protein and hormone biosynthesis. Many proteins are made by ribosomes on the outside of the endoplasmic reticulum and are squirted as a single string into the cisternae where they are folded to make functional enzymes etc. Failure to fold these proteins correctly as a result of damage to the cisternae has all sorts of implications for health, including Alzheimer's and Parkinson's disease and probably many more.

See [https://en.wikipedia.org/wiki/Protein\\_biosynthesis](https://en.wikipedia.org/wiki/Protein_biosynthesis)

Proteins are made in the "rough endoplasmic reticulum", so called because of the masses of ribosomes stuck to it. But there are also other regions of the endoplasmic reticulum, called smooth endoplasmic reticulum with no ribosomes. The function of these regions is to make lipids such as cholesterol, which is a precursor of all of our sex hormones as well as vitamin D, without which our resistance to COVID-19 and other disease would be significantly reduced.

I also found it interesting and a bit worrying that COVID-19 is much more likely to kill you if you are male. For what it's worth, this is probably due to a failure to repair damage to the Y-chromosome. We all have pairs of chromosomes that carry our genes, one set from our mother and one set from our father. The female has two X chromosomes. If one of these is damaged, it would normally be repaired by cutting out the damaged region and replacing it with a copy of the corresponding region from the other parent's chromosome. But the Y chromosome of the male is so physically different that this is not possible and, if you do not have enough cells with functional X chromosomes, you stand a greater risk of dying of COVID-19

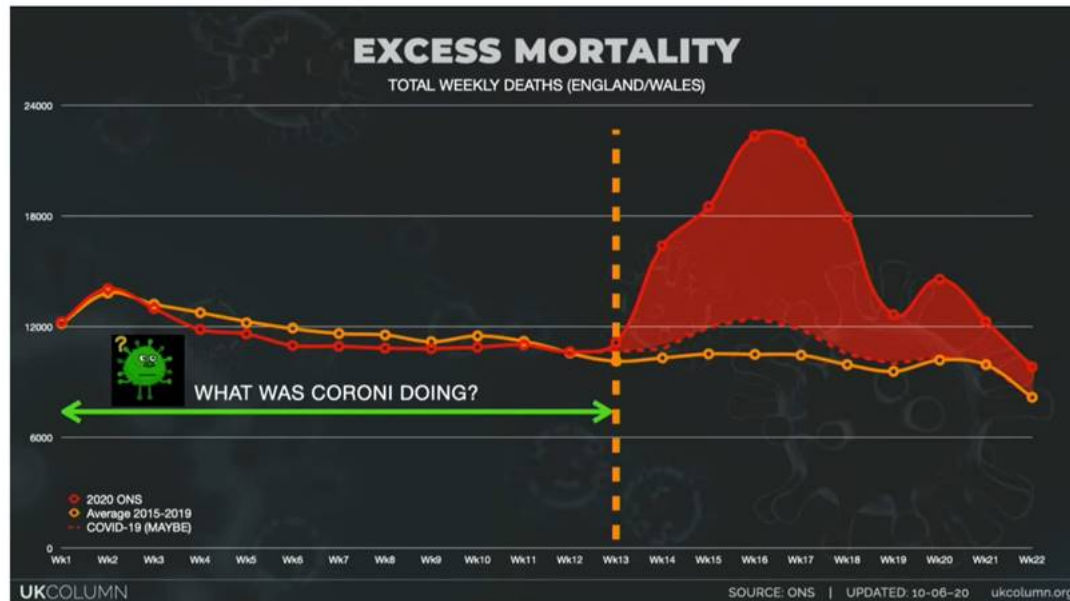
So the take-home story is that if you are male, steer clear of anyone with suspected COVID-19 and get rid of any unnecessary Wi-Fi. If you have a mobile phone, keep it switched off or in airplane mode and use it only in emergencies.

**From Paul Gregory, Sutton Coldfield, U.K.**  
**5G and coronavirus**

1). 5G Technology and induction of coronavirus in skin cells.

<https://www.biolifesas.org/biolife/wp-content/uploads/2020/07/FIORANELLI.pdf>

2). Lockdown Deaths, Not Covid Deaths. See link below:



Indeed, *UK Column News* has pointed out that the so-called "coronavirus" was totally inactive prior to the lockdown, with deaths being actually below the rate of the preceding year. It was only *after* the lockdown that people started dying in droves. This is proof that these were not "Covid" deaths, but were in fact lockdown deaths, for which governments should be held liable. The source of this graph is the U.K. Office of National Statistics.

<https://www.ukcolumn.org/article/lockdown-deaths-not-covid-deaths>

3). 'CNN verified my report on 5G killing people and not Covid-19 to be true'.

**Alexander Calapini-Solberg.**

<https://emrabc.ca/?p=17754>



4). **Mark Steele on 5G surveillance and how it will trigger illness in vaccinated people via metal particle implant.** <https://www.brighteon.com/45142133-2067-4761-ba4f-e9c69bd60a76>

***From Olivier Vuillemin, France***

### **New government policy will let mobile networks build a 5G tower on your property**

Minister of Communications and Digital Technologies Stella Ndabeni-Abrahams has gazetted a new policy on the deployment of communications networks in South Africa.

The policy aims to accommodate the accelerated deployment of electronic communications networks, such as LTE and 5G networks.

The policy gives mobile networks and other licensees the right to select, enter, and use public or private land for the deployment of their network infrastructure.

[https://mybroadband.co.za/news/wireless/360981-new-government-policy-will-let-mobile-networks-build-a-5g-tower-on-your-property.html?fbclid=IwAR0zRRXmwWGrR80A\\_vcigXktm57rcvWrQZQZHqh2sv0OHo1uEJma61TncVA](https://mybroadband.co.za/news/wireless/360981-new-government-policy-will-let-mobile-networks-build-a-5g-tower-on-your-property.html?fbclid=IwAR0zRRXmwWGrR80A_vcigXktm57rcvWrQZQZHqh2sv0OHo1uEJma61TncVA)



**The U.N. continues push for wireless technology**

### **Connecting AI innovators with problem owners to solve global challenges**

We have less than 10 years to solve the SDGs and AI holds great promise. The AI for Good Global Summit is THE leading action-oriented, global & inclusive United Nations platform on AI. The Summit is organized by the ITU with XPRIZE Foundation, in partnership with UN Sister Agencies, Switzerland and ACM.

On behalf of ITU and XPRIZE Foundation, we would like to inform you that due to recent developments concerning COVID-19, we have decided not to host a physical event in Geneva and that the 2020 edition of the AI for Good Global Summit will go digital from now until the end of the year. The Summit will be presented as a continuous digital event, featuring weekly programming across multiple formats, platforms and time-zones, including keynotes, expert webinars, project pitches, Q&As, performances, demos, interviews, networking and more.

<https://aiforgood.itu.int>

### **Microsoft courts new customers on the farm: Cows**

**The software company reveals a partnership with dairy cooperative Land O'Lakes that will equip cows with sensors and other gear to improve yields.**

**BORING IS THE** new sexy in Silicon Valley. As the coronavirus crisis has turned America upside down, it has become in vogue to just do the basic things right. Quantum computing may come eventually, and everyone still wants a moon shot. But for now, people are just asking for their video conferences to work and their doctors to have face masks. And that explains partly why Microsoft is courting a new class of customers: America's cows.

Today, CEO Satya Nadella is announcing a partnership with Land O'Lakes, a company known for its butter that's the country's third-largest agricultural cooperative. As part of the deal, Microsoft and Land O'Lakes will build an ag-tech platform that, ideally, will use artificial intelligence to help farmers plan their crop cycles, protect their soils, and harvest more grain. The companies will also try to increase broadband access in rural areas and make it easier for farmers to get credit for carbon removal.

[https://www.wired.com/story/microsoft-courts-new-customers-farm-cows/?bxid=5cc9e1372ddf9c1a7ade36ad&cndid=56670833&esrc=bounceX&source=EDT\\_WIR\\_NEWSLETTER\\_0\\_TRANSPORTATION\\_ZZ&utm\\_brand=wired&utm\\_campaign=aud-dev&utm\\_mailing=WIR\\_FastForwardTopClickers%202020-07-27&utm\\_medium=email&utm\\_source=nl&utm\\_term=WIR\\_TopClickers\\_EXCLUDE\\_Transportation](https://www.wired.com/story/microsoft-courts-new-customers-farm-cows/?bxid=5cc9e1372ddf9c1a7ade36ad&cndid=56670833&esrc=bounceX&source=EDT_WIR_NEWSLETTER_0_TRANSPORTATION_ZZ&utm_brand=wired&utm_campaign=aud-dev&utm_mailing=WIR_FastForwardTopClickers%202020-07-27&utm_medium=email&utm_source=nl&utm_term=WIR_TopClickers_EXCLUDE_Transportation)



*From Patricia Burke, Massachusetts*

## EMF TECH UTILITY NEWS

### **ACTION ITEM: Help Put a Real Advocate on the FCC's Disability Advisory Committee!**

Back in 2014, the FCC established the Disability Advisory Committee (DAC) to provide advice and recommendations to the Commission on a wide array of disability issues. Now, the Committee is being reactivated, and the FCC is looking for nominees. The applications portal for membership closes on August 13th.

Certainly there is no disability more directly related to the FCC's actions and decisions than electromagnetic hypersensitivity, or EHS.

This week, we're asking you to send an email to the FCC requesting that the agency include at least one member with EHS on its advisory committee.

If you prefer, you can nominate your own candidate for this position.

You can send your email to [DAC@fcc.gov](mailto:DAC@fcc.gov). The contact person is Debra Patkin.

**26 July is Global Stop 5G Beach Action: Write a stop 5G Message + your Country in the sand (if no beach, use chalk or pastels on the pavement) and post a photo to the Media plus the Global Protest Facebook Group**

BEACH ACTION:

This summer, if you have access to a beach, gather a few people to write a big "Stop 5G" sign in the sand - take a picture (I am not a fan of drones, but it may be good here) and post to me as well as to the Global 5G Protest Group: <https://www.facebook.com/groups/548912049259423/> If no beach, please use chalk and chalk the pavement with a Stop 5G Message!

GLOBAL PROTEST:

Please start preparations NOW for Global 5G Protest Saturday 26th of September! We want and need this to be the biggest Protest ever and need all villages, towns, cities and countries to take part - whether big or small! So please share the date widely and please gather your troops!

**Google Alert Link will not open:**

**Heat Concerns When Powering a Power Over Ethernet (PoE) Device**

POP TIMES UK

IEEE 802.3af and 802.3at, PoE Types 1 and 2, deliver power and data in one of two ways: the first way is power and data simultaneously over pairs 1-2 ...

will not open.....

**CELLPHONES: Government and industry combine to downplay the science on cell phone danger**

By Mark Leno and Ellie Marks

In 2015, the city of Berkeley passed an ordinance requiring cell phone retailers to advise consumers, in a flyer at the point of sale, that keeping a cell phone in their pocket or near their body could expose them to wireless radiation above Federal Communications Commission safety levels. Councilmembers understood that manufacturers deceptively hide this federally mandated information deep within user manuals or in the phone that few ever see. The council also understood that cell phones are allowed to be tested for compliance away from the body— not as used.

A survey of Berkeley residents found overwhelming support for Berkeley's ordinance. Eight-five percent of residents never saw recommendations from manufacturers about how to best protect against overexposure to cell phone radiation and 82% want this information at the point of sale.

America's trade association representing the wireless communications industry (CTIA) challenged this ordinance all the way to the United States Supreme Court twice and lost every step of the way. Now this well-funded industry, along with support from the FCC, is again fighting to prevent the public from simple truthful information. Despite losing, the industry has now asked a federal court in California to rehear the case. Industry is repeating its failed argument that the FCC claims cell phones are safe no

matter how used. A federal district court hearing is set in San Francisco for Thursday, July 23, on this motion.

FCC regulations mandate consumers be given “conspicuous” information regarding safe use of cell phones. Hiding safe-distance information deep within the phone and their own manuals is hardly conspicuous. We must ask ourselves what other critical information industry and the FCC are hiding from the public.

The FCC’s General Counsel, Thomas Johnson, recently submitted documentation to the court in support of the wireless industry. Johnson, conveniently, formerly worked for Gibson Dunn, the firm representing the wireless industry against Berkeley. The FCC is claiming that the manner in which manufacturers currently disclose the cell phone “safety” information is adequate, thus Berkeley’s ordinance is “over-warning” and therefore federally pre-empted.

This is not so.

Why is a federal agency aggressively defending the billion-dollar industry that it is mandated by Congress to regulate? Why are the FCC and CTIA so adamant about stopping this simple advisory at the point of sale? Berkeley’s ordinance merely alerts consumers that wearing or using a phone in a pocket, or tucked into a bra, may expose them to radiofrequency radiation that could exceed the federal safety limit. Again, this is basic information provided by the industry itself, though in a hidden fashion.

I, Mark Leno, championed a similar bill in the California Senate in 2011, the same year the World Health Organization put wireless radiation in the same category as lead and diesel fuel. They declared this radiation possibly carcinogenic to humans based on an increased risk of brain tumors associated with mobile phone use. My bill would have put minimal safety information at the point of sale. I experienced the intense lobbying and mistruths of this industry. This is corporate special interest at its worst.

This intense legal battle is an abuse of our legal system and exhibits the flagrancy of the FCC and the wireless industry in covering up independent science in regard to public health. The \$30 million U.S. National Toxicology Program released results in 2018 stating “clear evidence,” the highest certainly level, that cellphone radiation causes cancer.

Why should we ignore the science?

This industry and the FCC are putting public health at great risk concerning a device used daily by nearly every American including the most vulnerable — our children and grandchildren. Consumers should have the right to know critical information at the point of sale so that they can make informed decisions as to safe use for themselves and their loved ones.

Mark Leno is a former state senator from San Francisco; Ellie Marks is a co-founder of the California Brain Tumor Association.

<https://www.sfchronicle.com/opinion/openforum/article/Government-and-industry-combine-to-downplay-the-15421230.php>

**CELLPHONES: Recent 5G Smartphone Teardowns Show that RF Front End Content and Complexity in 5G devices Has Created Quite a 5G Conundrum for Smartphone OEMs**

Smartphone vendors must overcome a host of extremely complex challenges to meet the 5G demand explosion, notably with RFFE-related components

"The 5G smartphone market is set to rapidly expand in the next 12 months, with many mobile vendors looking to quickly develop their 5G portfolios. However, a host of extremely complex challenges lie ahead for smartphone vendors, which they must overcome to fully realize the 5G demand explosion across all tiers," states David McQueen, Research Director at ABI Research.

The move to 5G requires an integration of the entire 5G cellular system design into OEMs' devices, from modem-to-antenna, addressing all aspects of end-to-end performance. This complexity level includes the integration and deployment of new 5G modem and RFFE components, features, and functionalities, leading to substantial changes in the design of mobile devices. "Smartphone OEMs are finding this change particularly challenging, as it makes their RFFE component procurement process and system design far more complex than ever. Unless adequately addressed, the burden brought about by the complexities of implementing 5G can lead to several issues, including lengthy product development cycles, more expensive devices, and huge constraints on device industrial designs," McQueen explains.

OEMs will have to rationalize the delegation of modem-RF system procurement to a handful of suppliers and, most importantly, make sure they pick the right partner. "Notably, it needs to be one with a well-proven, tested, or validated rich RFFE portfolio and a comprehensive 5G roadmap. The delegation brings several advantages, many of which have become increasingly stark as the device market transitions to 5G," McQueen asserts.

To learn more about the complexities Smartphone OEMs are facing bring 5G to market, and to view the nine teardowns, download the whitepaper, "5G Teardowns Reveal Qualcomm's RF Leadership Due to Growing Design Complexity." Teardown images are available upon request. You are welcome to share the whitepaper link with your readers.

<https://www.prnewswire.com/news-releases/recent-5g-smartphone-teardowns-show-that-rf-front-end-content-and-complexity-in-5g-devices-has-created-quite-a-5g-conundrum-for-smartphone-oems-301096111.html>

#### **CELLPHONES: [Press Release] Phonegate: 60 plaintiffs file class action against Xiaomi**

The French law firm Beaubourg avocats represented by attorney Elias Bourran filed a class action suit against the Chinese smartphone manufacturer Xiaomi with the Paris Public Prosecutor's Office on Friday, July 17, 2020.

This class action, which brings together some sixty plaintiffs, follows the criminal complaint filed on April 15, 2019, by the Phonegate Alert NGO and has since been monitored by the Public Health Unit of the Paris Public Prosecutor's Office.

<https://resources.remcom.com/videos/5g-for-manufacturing-and-industry-4-0-propagation-in-a-warehouse-environment>

**CELLPHONES: But Ochsner didn't know that when she decided to share a plan and make Clarke an authorized user.** She said that gave him unlimited access to her account, as well as the latest iPhones and all the gadgets.



"It was within a month's time that \$11,000 was racked up by John Clarke," she said.

Crystal Rhoades is with the Nebraska Public Service Commission.

"I think is absolutely tragic," Rhoades said. "We don't have a sufficient regulatory framework right now to protect consumers from exactly this type of activity."

The commission regulates landlines, not wireless carriers. Rhoades said that needs to change.

"We have the ability to look into complaints like this if it were to happen on a landline telephone but not on a cellular telephone. It really leaves consumers exposed and unprotected," she said.

Wireless companies were not part of the 1936 and 1996 Telecomm Acts and Rhoades said Congress is overdue in addressing the regulation of the wireless industry.

<https://www.ketv.com/article/its-not-fraud-its-domestic-cellphone-companies-say-victims-responsible-for-money-lost-in-romance-scheme/33372294>

### **CELLPHONES: Comments on "Diverse Radiofrequency Sensitivity and Radiofrequency Effects of Mobile or Cordless Phone near Fields Exposure in Drosophila Melanogaster"**

Comments on "Diverse Radiofrequency Sensitivity and Radiofrequency Effects of Mobile or Cordless Phone near Fields Exposure in Drosophila Melanogaster"

#### Abstract

The paper by Geronikolou, et al. (2014) "Diverse Radiofrequency Sensitivity and Radiofrequency Effects of Mobile or Cordless Phone near Fields Exposure in Drosophila melanogaster" [1] published in Plos One supposedly presents original work on the effects of mobile and cordless phones electromagnetic fields (EMFs) on Drosophila melanogaster reproduction. The paper reports that two of its authors "conceived and designed the experiments". This is not the case. The paper is a replication of the experimental procedures introduced by Panagopoulos, et al. (2004) "Effect of GSM 900-MHz Mobile Phone Radiation on the Reproductive Capacity of Drosophila melanogaster" [2], and applied since then in many publications (Panagopoulos, et al. 2007a; b; 2010; 2013; Panagopoulos, 2016; 2017; 2019) [3-5,15,16,20,21]. Geronikolou, et al. followed the same experimental methodology without reporting replication or even citing the original study. Then, they differentiated on secondary points - employing a different statistical method, calculating theoretically the near-field instead of measuring it, not sham-exposing the control groups, and including experiments with cordless phones based on the same procedures - which led them to serious flaws and misleading conclusions. Our present commentary is a necessary action to protect authorship and restore science in regards to experiments with mobile and cordless phones.

<https://scholars.direct/Articles/environmental-studies/aes-4-028.php?jid=environmental-studies>

### **CHILDREN: With Kids Spending More Waking Hours on Screens than Ever, Here's What Parents Need to Worry About**

Screen time: Recommended limits vs real life

<https://www.nextgov.com/ideas/2020/07/kids-spending-more-waking-hours-screens-ever-heres-what-parents-need-worry-about/166915/>

### **SCHOOLS: Georgia Broadband Deployment Initiative Successfully Utilizes Data for Effective Decision Making**

Another GBDI initiative is the Speedtest by Ookla® pilot project. Its purpose is to enable local leaders to effectively assess distance learning on a long-term basis. GBDI is assisting the Department of Education (DOE) and school districts to deploy wireless solutions for student connectivity in all 216 districts. Working in partnership with DOE and wireless providers as a team, the broadband map and Ookla speed test data will be used to provide detailed guidance to school districts who will evaluate the best locations for wireless solutions deployments to achieve instruction continuity for students.

<https://www.benton.org/blog/georgia-broadband-deployment-initiative-successfully-utilizes-data-effective-decision-making>

### **SCHOOLS: RUSSIA**

Hygienic standards and special requirements for the organization of work in a digital educational environment

<https://niigd.ru/news/gigienicheskie-normativi-raboti-cifrovoj-shkoly.html>

### **ECONOMICS: Indecent stock market boom exposes riot-inducing inequality, not economic positives**

<https://www.nationofchange.org/2020/07/21/indecent-stock-market-boom-exposes-riot-inducing-inequality-not-economic-positives/>

### **ENVIRONMENT: Earth's magnetic field may change faster than we thought – new research**

The impact of society

Changes in the magnetic field, such as reversals, probably don't pose a threat to life. Humans did manage to live through the dramatic Laschamp excursion. Today, the threat is mainly down to our reliance on electronic infrastructure. Space weather events such as geomagnetic storms, arising from the interaction between the magnetic field and incoming solar radiation, could disrupt satellite communications, GPS and power grids.

Satellites are at risk from space weather. Andrey Armyagov/Shutterstock

This is troubling – the economic cost of a collapse of the US power grid due to a space-weather event has been estimated at around one trillion dollars. The threat is serious enough for space weather to appear as a high priority on the UK national risk register.

Space weather events tend to be more prevalent in regions where the magnetic field is weak – something we know can happen when the field is changing rapidly. Unfortunately, computer simulations suggest that directional changes arise after the field strength begins to weaken, meaning we cannot predict dips in field strength by just monitoring the field direction. Future work using more advanced simulations can shed more light on this issue.

Is another rapid change in the magnetic field on its way? This is very hard to answer. The fastest changes are also the rarest events: for example, the changes identified around the Laschamp excursion are over two times faster than any other changes occurring over the last 100,000 years.

This makes it difficult for scientists to predict rapid changes – they are “black swan events” that come as a surprise and have a big impact. One possible route forward is to use physics-based models of how the field behaves as part of the forecast.

We still have a lot to learn about the “speed limit” of Earth’s magnetic field. Rapid changes have not yet been directly observed during a polarity reversal, but they should be expected since the field is thought to become globally weak at these times.

<https://theconversation.com/earths-magnetic-field-may-change-faster-than-we-thought-new-research-142752>

## **FCC: FCC Authorizes Over \$20 Million For Rural Broadband**

Public Notice | Federal Communications Commission

The Federal Communications Commission authorized over \$20 million in funding over ten years to expand rural broadband in Minnesota and Pennsylvania. Viasat will serve rural locations in Pennsylvania with \$19,945,120 in FCC support, and Tribal provider Fond du Lac Communications, Inc. will receive \$55,011 to provide gigabit fixed broadband to serve small, isolated communities in Tribal areas in Minnesota. The funding represents the 14th wave of support from the successful 2018 Connect America Fund Phase II auction. Providers must build out to 40% of the assigned homes and businesses in the areas won in a state within three years. Buildout must increase by 20% in each subsequent year, until complete buildout is reached at the end of the sixth year.

<https://www.benton.org/headlines/fcc-authorizes-over-20-million-rural-broadband>

## **FCC: statement that the FCC filed in the ongoing CTIA lawsuit against the Berkeley Right-To-Know ordinance**

<https://docs.fcc.gov/public/attachments/DOC-365069A1.pdf>

There's a lot of useful information in this brief, including the FCC's perspective on the history of setting RF guidelines. There is also a quote from the House Commerce Committee report prior to adopting the TCA on RF emissions. FCC claims it was codified in the TCA, but the language is very different.

Included in this brief is the quote that the FCC exempted cellphones from environmental review (aka safety testing).

Very, very useful document. Nina

**5G OPPOSITION: Game of Thrones actor Jerome Flynn publicly voices his support for the Legal Action Against 5G campaign.** Recalling Boris Johnson's recent claim that people's health is paramount, he notes the UK Government's deplorable lack of due diligence with regard to establishing the safety of 5G, and its wilful disregard for the large body of scientific evidence showing a range of adverse effects upon human health and the environment. Jerome pledges his support for Michael Mansfield and the campaign team and vows that our voices will be heard.

Our website: <https://actionagainst5g.org/>

Donations to: <https://www.crowdjustice.com/case/legalactionagainst5g/>

### **5G: Zelensky responds to petition to ban 5G in Ukraine - Unian, 21st July 2020**

'Ukrainian President Volodymyr Zelensky has responded to a petition calling for a ban on the introduction in Ukraine of the 5G mobile telecommunications technology'

Ukrainian President Volodymyr Zelensky has responded to a petition calling for a ban on the introduction in Ukraine of the 5G mobile telecommunications technology. In particular, the president called on Prime Minister Denys Shmyhal and Head of Ukraine's National Commission for Communications and Informatization Regulation (NCCIR) Oleksandr Zhivotovsky to inform Ukrainian citizens about the impact of 4G and 5G mobile technologies on human health. Zelensky also noted the importance of introducing permissible electromagnetic radiation ceilings when introducing high-speed communications. "The main thing in terms of health care in introducing 5G is standardization of maximum admissible levels of electromagnetic radiation," he said. Read also RFE/RL: Russia denies nuclear incident following detection of isotopes in Northern Europe The 2019-2020 action plan to launch 5G in Ukraine this year has not been approved yet, according to the president's response to the petition. Zelensky, citing research by international organizations, also stressed that there was no evidence that 5G was harmful to humans. As UNIAN reported, on July 6, a petition calling for a ban on 5G in Ukraine, gained 25,000 votes required for its consideration by the president.

<https://www.unian.info/society/zelensky-responds-to-petition-to-ban-5g-in-ukraine-11082866.html>

### **5G: Your Health & 5G with Paul Harding 1/2 hour video**

Tom Lankering, Bioenergetic Chiropractor, speaks with Paul Harding, EMF Specialist about 5G technology and your health.

<https://www.youtube.com/watch?v=APQlrzsqNyE>

## **5G INDUSTRY: Telehealth is unlikely to replace physical doctor's visits, even with 5G**

Boosting telehealth services with 5G likely won't eliminate the need for physical doctor's visits, Mei Kwong, executive director for the Center for Connected Health Policy, said on Friday during an Axios virtual event on Friday.

The big picture: Telehealth has experienced massive growth during the coronavirus pandemic, as more health providers have had to pivot services for patients stuck at home.

What she's saying: "So really, telehealth is a compliment to what you're doing with your healthcare services ... it's just another tool in the toolkit for the provider to use in providing that service," Kwong said.

"I don't think that in-person service will ever go away, at least not for the foreseeable future, but there will definitely be more things you can do with the technology and do it safely and effectively."

Yes, but: Policymakers are concerned about telehealth widening the digital divide, Kwong said.

"Will everybody be able to access it? And that's been a major concern of policymakers if they want to make sure that nobody is left behind, that there isn't this digital divide if we go forward with telehealth of some people being able to access it, and others aren't," she said.

Go deeper: 5G rollout advances despite pandemic, but hazards loom

<https://www.axios.com/coronavirus-telehealth-5g-c1b1b28a-791c-4aee-b8ec-2bf2a3add1cd.html>

## **5G INDUSTRY: INDIA Jio applies for spectrum to start 5G trials - report**

Monday 20 July 2020 | 08:30 CET | News

Indian operator Reliance Jio has developed its own 5G solution "from scratch", chairman Mukesh Ambani announced. The company plans to launch "a world-class 5G service in India... using 100% home grown technologies and solutions", he said in a statement at the Reliance Industries annual shareholders meeting.

The company's equipment is ready for deployment this year, as soon as 5G spectrum is available, he said. A roll-out will be relatively easy, thanks to its existing all-IP 4G network.

The development supports the government's local production push, to develop home-grown alternatives to technology from China or other countries. Ambani did not outline the exact components developed but said the company would look to export the 5G system to other countries as well.

The Business Standard reports that Jio has applied to the Department of Telecom for trial 5G frequencies. The company is reportedly seeking 800 MHz in the mmWave bands 26 and 28 GHz and 100 MHz in the 3.5 GHz band for field trials of its new network in a few metro areas.

<https://www.telecompaper.com/news/jio-applies-for-spectrum-to-start-5g-trials-report--1347026>



## **5G RUSSIA: MTS to sell Motorola Edge+ smartphone for mmWave 5G**

Friday 17 July 2020 | 16:23 CET | News

Russian mobile operator MTS, in cooperation with the companies Motorola and Qualcomm Technologies, has tested the Motorola Edge+ smartphone. The device will support the 24.25-24.65 GHz band allocated for 5G services in Russia. MTS plans to start sales soon of the new device, which runs the Qualcomm Snapdragon 865 5G platform.

<https://www.telecompaper.com/news/mts-to-sell-motorola-edge-smartphone--1346976>

## **5G UK: Consultation: Proposed measures to require compliance with international guidelines for**

limiting exposure to electromagnetic fields (EMF)

Summary of consultation responses from individuals and groups with health concerns about 5G mobile and

related technologies

38 pages of citizen inquiry:

[https://www.ofcom.org.uk/data/assets/pdf\\_file/0033/197970/5g-and-health-summary.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0033/197970/5g-and-health-summary.pdf)

## **5G: FWA takes a shine to mmWave spectrum: Special Report**

In some ways, fixed wireless access (FWA) is the star of the show when it comes to millimeter wave (mmWave) spectrum, which often gets slammed for its poor propagation characteristics but shines when it comes to lightning-fast speeds. Millimeter wave technologies is one of the topics that will be covered during a session on Wednesday, July 22, as part of the FierceWireless' Summer 5G Blitz week.

Let's face it: There's a lot of mmWave spectrum in the U.S. Until the CBRS auction, which gets underway July 23, the auction of the upper 37, 39 and 47 GHz bands represented the largest spectrum auction in the nation's history, with 3,400 megahertz up for bid. That auction garnered \$4.47 billion in net proceeds, with Verizon, AT&T, and T-Mobile spending top dollar.

One big reason operators are interested in 5G FWA is it enables them to compete outside of their traditional market without having to invest in a lot of new infrastructure. Verizon often reminds folks that it's using the existing mobile 5G network to offer its Verizon Home Internet service, which it intends to offer in 10 markets by the end of 2020. IHS Markit points out that fundamentally, all operators need new customers and new revenues, and 5G FWA offers a means of reaching untapped markets or delivering high-speed connectivity upgrades to existing ones.

Boston-based Starry uses the 37 GHz band in five markets where it offers a FWA service: Boston, New York, Denver, Los Angeles and Washington, D.C. It's also participated in mmWave auctions, acquiring a significant amount of 24 GHz spectrum.

Using mmWave spectrum to deliver a fixed internet service for \$50 per month is part of Starry's strategy. It's primarily targeting multi-dwelling units (MDUs) but in Boston this fall, it will be adding a radio that is cheaper and smaller to serve single family homes, according to Starry co-founder and CEO Chet Kanojia.

Starry uses 802.11ax technology. The company has not yet disclosed when it will start rolling out the 24 GHz spectrum it acquired at auction. It also expects to use the 6 GHz band, where 1,200 recently became available on an unlicensed basis.

In Europe, Orange's priority is using the 3.5 GHz and 700 MHz bands. Orange is based in Paris; France has postponed its 5G mid-band spectrum auction until this fall.

However, Orange, which is active in Western and Eastern Europe, Africa and the Middle East, tested FWA in a 2018 trial in Romania using 26 GHz mmWave spectrum and found the technology worked well, according to Yves Bellego, director of Network Strategy at Orange. The next step will be larger-scale tests to assess more precisely the cost of installation and overall economics.

The other scenario where it's eyeing the use of mmWave is for mobile usage, such as hot spots in stadiums, shopping malls and other high-density traffic areas. It's currently working with a French railway company in the town of Rennes, where it's assessing how well it works to provide, for example, service for customers to instantly download movies before they get on a train and to provide service for people who work at the railway station.

That said, Orange is not betting heavily on small cells because they're rather expensive compared to traditional macro cell deployments, according to Bellego.

"Our priority on 5G is the 3.5 GHz band," as well as the 700 MHz band, he said. "When it comes to millimeter wave, that's not something that is in fact the first the priority in terms of timing."

In Western Europe, for example in France and Spain, it's going to continue deploying fiber, but in Eastern Europe, the markets and revenues are different, and "we need some complementary solutions to bring broadband to the households in Poland. 5G millimeter wave is one very good technology to fill that need," he said. That need will emerge, he said, and Orange looking for solutions in coming years, when that spectrum will be awarded.

#### Looking beyond mmWave

Ted Rappaport, founder of NYU Wireless, led groundbreaking research into the use of mmWave spectrum and was instrumental in getting the U.S. to take an aggressive stance.

Granted, it's more difficult to get a signal from outside a building to inside using mmWave frequencies, but once it's inside, it's super-fast, he said. In the majority of cases today, the mmWave signal is fine outside an office or residence, but the service provider will use Wi-Fi inside the building. Verizon, for one, is exploring alternative, newer repeater technologies that bring the 5G signal into the home.

Having the ability to use mmWave spectrum inside buildings is necessary because it gives users another way of connecting alongside Wi-Fi, according to Rappaport. If one is congested, the consumer's device can use the other.

He and his students also conducted tests in rural environments and found that mmWave can be an alternative to fiber. "I think that's such a huge opportunity to use 5G," he said, where mmWave gear can

replace bad copper. It can also be a lot cheaper to put a wireless radio on a pole and make a daisy chain of wireless rather than dig a trench to reach these remote places.

While the wireless industry is busy with commercial 5G deployments using various spectrum bands, the academic and research communities are thinking about even higher spectrum bands. It's early days for spectrum above 95 GHz, known as the terahertz (THz) spectrum. However, "there's definitely going to be a need and technologies will be developed," Rappaport said. "That will be part of 6G."

<https://www.fiercewireless.com/tech/fwa-takes-a-shine-to-mmwave-spectrum-special-report>

### **5G: Diverse 5G spectrum holdings fuel mix of 5G infrastructure: Special Report**

U.S. carriers have all signaled they're moving ahead with 5G rollouts, with new spectrum coming online and differing deployment models that require a variety of infrastructure solutions.

### **5G: 5G for Manufacturing and Industry 4.0 - Propagation in a Warehouse Environment**

<https://resources.remcom.com/videos/5g-for-manufacturing-and-industry-4-0-propagation-in-a-warehouse-environment>

### **5G infrastructure will be discussed on Monday, July 20, during FierceWireless 5G Blitz Week virtual event, with a session titled "Rolling Out 5G Infrastructure."**

Carriers continuing to deploy 5G in different frequency bands is one of the primary reasons the coming wave of 5G rollouts will be across the board in terms of macro towers, rooftop sites, and small cells, according to Mark Reudink, VP of Product Development at Crown Castle.

Lower bands for 5G coverage like those already being deployed by T-Mobile (600 MHz) and AT&T (850 MHz) are better suited for towers. Verizon has focused on millimeter wave using 28 GHz, but plans to roll out 5G with low-band with the help of dynamic spectrum sharing technology.

U.S. operators also have accumulated large amounts of millimeter wave spectrum, and are waiting to get their hands on key mid-band at auction. T-Mobile recently started initial deployments of 2.5 GHz spectrum.

"And then there's a huge appetite, especially in light of recent events, for fixed wireless access," Reudink said, with FWA deployed via small cells. Continued mmWave deployments are primarily on small cells, though Reudink said Crown Castle is seeing some on towers as well.

Verizon last month expanded 5G Home Internet, its fixed wireless service using 28 GHz spectrum, to a sixth market and plans to reach 10 cities this year. Down the line, the carrier aims to cover 30 million households. T-Mobile pledged to offer in-home fixed wireless service to about 9.5 million households by 2024, but is still in pilot phases.

One option for indoor coverage at public places like airports, sports and entertainment, shopping and hospitality venues is neutral-host cellular distributed antenna systems (DAS). Rachel Rea, senior director of Carrier Services at Boingo, said the company – one of the largest indoor DAS providers in the U.S. – continues to see the need for indoor solutions, noting 80% of mobile data is consumed inside today.

As a neutral-host provider, Boingo helps venues serve visitors that likely have different wireless providers, who are all using different wireless spectrum.

“Now with 5G, the need for DAS and dense networks is amplified,” Rea said, adding its verticals will continue to grow and Boingo will migrate into new industries like manufacturing.

With the variety of low-, mid- and mmWave 5G deployments, as a neutral-host Boingo takes the approach to ensure carriers and their spectrum bands can be uniquely designed and deployed in a variety of locations.

One of the best things about having a neutral-host partner, according to Rea, is smart decisions are made that are favorable to both the venue and the carriers.

#### Mid-band coming online

Coveted mid-band spectrum is still currently scarce in the U.S. for most carriers, but two auctions are slated for this year.

T-Mobile is the only one rolling out mid-band with its 2.5 GHz, acquired through the Sprint merger, now activated in a handful of markets. Hussain is seeing no more than 20 MHz in the initial deployments, which he said is not that significant in terms of driving gigabits of throughput for the enhanced mobile broadband (eMBB) use case. However, T-Mobile has plenty more to deploy.

This month the FCC is auctioning Priority Access Licenses (PALs) in the shared 3.5 GHz CBRS band, offering 70 MHz. A variety of players are interested, with more than 270 qualified applicants. The highly anticipated C-band auction starts December 8, with 280 MHz of spectrum up for grabs.

Mike Wolfe, VP of network engineering for Wireless at CommScope, is excited for the significant opportunities C-band brings.

“From a North America perspective, the C-band spectrum coming available is going to a major opportunity that’s going to take us through a number of years,” Wolfe said. “It’s going to become pretty much a macro overlay for 5G, similar to what’s being done in Europe with the 3.5 GHz band.”

Crown Castle’s Reudink said C-band deployments will encompass tower, rooftop, and small cells. In terms of 3.5 GHz in the U.S., Crown Castle sees CBRS as geared toward high-capacity needs delivered via small cells.

“Small cells [for C-band] may lag a little behind what we see on the towers,” Reudink said, because of more powerful transmission available from the C-band than around CBRS. “That’s when you could start with the coverage play primarily using tower assets and then fill that in when you have more capacity needs with the small cells.”

When it comes to CBRS and C-band, there are design considerations for DAS providers, according to Rea. Once new spectrum is auctioned, Boingo needs to change the way it designs and deploys networks to meet the new requirements and venue specifications.

A wireless band at 3-6 GHz isn't going to penetrate walls the same way 600 or 800 MHz frequency will, she noted, and the approach is different based on the frequencies and the type of venue - down to what kind of walls it has.

"In terms of DAS, 5G will underscore the need for neutral-host, not just as a technology but as a business model," Rea said. "Venues don't want 3-4-5 layers to a network, they want one unified system that brings everything under one managed networks."

#### Small cells need power

While mid-band is a major focus these days, U.S. carriers still have significant mmWave holdings, which require dense deployments.

The Small Cell Forum expects global small cell deployments and upgrades to reach 6.3 million per year by the end of 2026, at compound annual growth rate (CAGR) of 13% from 2019.

Cumulatively, that will reach 38.3 million (and up to 49 million in a best-case scenario) by the end of the forecast, with 5G small cells overtaking 4G in early 2024.

Trying to deploy dense coverage with mmWave is a known challenge and Viavi's Hussain said from a scale perspective, investment needs to be understood well, and considers things like backhaul and power requirements as continued challenges.

Commscope's Wolfe said access to fiber and getting power to poles is a pain point they've seen in the small cell deployment space.

"We've seen that some of the power consumption levels on small cells has increased to where now it's typically 1 kilowatt or more worth of power consumption per pole," Wolfe said. "So, the power requirements continue to escalate as the operators have started to add a lot more 5G capabilities to those small cells, in addition to 4G."

Wolfe believes 5G is more energy efficient on a per bit basis, but looking at site power consumption, he thinks "5G is going to drive power levels up just because of the cost of achieving that capacity."

Commscope has also been talking with customers about new solutions with distributed power technology that avoids a per-pole AC power connection. Getting power to poles from the utilities can sometimes take between 6-12 weeks per pole, according to Wolfe. Instead, customers could power a cluster of sites from a central node, saving costs and time.

It's still a consideration but Crown Castle doesn't see any roadblocks as far as power consumption of 5G versus 4G equipment.

"All of the manufacturers certainly are working to make the 5G gear more efficient and we're seeing some of that efficiently through the architectures that are being deployed," Reudink said.

In looking toward sustainability, as well as expediting 5G network deployments, Crown Castle is also focused on talking with carrier customers about its ability to provide shared wireless infrastructure where they're colocated. This reduces the overall amount of towers, small cells, fiber lines and so on.

One thing is certain, carriers will continue to tap whatever spectrum resources they can for 5G and that points to infrastructure across the board.

“All of the assets [tower, rooftop, small cells], and then the fiber connectivity between those as well, are a big part of the component as we roll out 5G,” Reudink said.

<https://www.fiercewireless.com/5g/carriers-different-5g-rollouts-will-span-infrastructure-special-report>

### **5G: Verizon recently worked with Infinera to successfully test 800G on a single wavelength over 400 miles on its long-haul network between Dallas and Atlanta.**

Kevin Smith, Verizon’s VP of technology development and planning, said the trial was conducted on Infinera’s ICE6 platform.

Smith said Verizon is “pushing hard” on its optical transport work “to move up the stack” because it anticipates a lot more traffic as technologies such as 5G, edge compute and artificial reality take root. Verizon says the specific trial with Infinera is a piece of a much bigger evolution story connected with the 5G network. In order to advance 5G, the core network and the fiber network have to advance as well.

<https://www.fiercetelecom.com/operators/verizon-works-infinera-800g-transport>

### **5G: Giant Wireless Sale Offers 5G Spectrum Sliced Into 22,631 Pieces**

<https://finance.yahoo.com/news/giant-wireless-sale-offers-5g-080000875.html>

### **5G: A 5-stage 5G model can improve customer experience**

Stage 1: The “traditional” stage occurs with Non-standalone 5G deployment. Many CSPs are at this stage, which is characterized by physical SIM swapping, reliance on co-existing LTE network, handover sessions of user plane connectivity and omnichannel support that is similar to 4G LTE care.

Stage 2: In the “evolving” stage, CSPs are looking at options to reach customers to upgrade service when retail shops are closed because of the Covid-19 pandemic. They are investing in improving LTE backhaul capacity so there is no strain on network capacity, and front-end FAQs are updated based on technical standard limitations.

Stage 3: The “enhanced” stage is about implementing a mitigation plan to overcome the impact of the pandemic by enabling digital solutions like videoconferencing with customers to upgrade from 4G to 5G. This phase also includes radio advancement by implementing Open RAN, which enables flexibility across data bearers. Dynamic implementation of service level agreements for ensuring charging is subject to 5G usage only.

Stage 4: In the “personalized” stage, CSPs move to Standalone 5G which includes network slicing. This capability makes personalized services possible. With latency dropping to less than 5 milliseconds, augmented and virtual reality applications can be delivered, and in a virtualized, software-defined cloud environment, service optimization on demand is possible. Also at this stage, a front-end “Digital Wizard” tracks customer mobility at postcode level with key performance indicators to enhance CX.



Stage 5: In the “customer delight” phase, eSIMs eliminate the need for physical SIM swapping to provision 5G. 5G coverage is expected to be about 99%. Multi-access edge computing will bring computing to the edge of the network, and network slicing will enable use cases catering to customer-specific requirements. Implementation of machine learning and AI for pattern recognition predicting degradation in service will also happen in this phase.

<https://inform.tmforum.org/insights/2020/07/a-5-stage-5g-model-can-improve-customer-experience/>

**OTHER TELECOM: In a pandemic-plagued country, high-speed internet connections are a civil rights issue.**

Editorial Board | Editorial | New York Times

An adequate connection is no longer a matter of convenience; it is a necessity for anyone wishing to participate in civil society. Service is often unavailable or too expensive in rural communities and low-income neighborhoods. This has forced people into parking lots outside libraries, schools and coffee shops to find a reliable signal — while others are simply staying logged off. At the same time, there is pressure on small businesses that are still using pen and paper to modernize or face extinction. Yet, federal and local initiatives have failed to bring swift internet service to tens of millions of Americans. Like electricity, internet service has become a necessity for modern life. Efforts to fix this inequity extend back at least as far as 2009, when Congress directed the Federal Communications Commission to develop a plan to get broadband service to nearly every American.

Today, broadband is a patchwork of infrastructure and services offered primarily by major corporations like Verizon and AT&T. But swaths of the country have been left with no service, either because of a lack of perceived profits or a lack of the political will to extend fiber to harder-to-reach communities. Electrifying the entire country a century ago was made possible by a coordinated federal plan from the administration of Franklin D. Roosevelt. The Rural Electrification Administration brought electricity to areas outside city centers through federal loans to small cooperatives formed to bring power lines and generators to their communities. While such a centralized effort may be unlikely today without the urgency of the New Deal, the coronavirus has demonstrated that it is time for the federal government to think more creatively and to act more swiftly to deploy broadband service. Universal broadband will be costly, but shelter-in-place orders have demonstrated that it is even more costly to leave so many Americans behind.

Perhaps more daunting is the challenge of providing service that is speedy and at a price that even lower-income Americans can afford. One study found that poorer Americans can afford only \$10 a month for internet service. But such service is typically at far slower speeds than what is available in more affluent neighborhoods, or for free at Starbucks. Private industry may have little desire to provide lower-tier broadband service when it can profit far more from higher-end services. The expansion of federal programs, like E-Rate, to allow schools to distribute broadband service directly to students could also help lower costs. But those solutions are not a fix to the broader problem. Drawing Wi-Fi from school buses and fast-food restaurants isn't a long-term solution.

<https://www.benton.org/headlines/pandemic-plagued-country-high-speed-internet-connections-are-civil-rights-issue>

**OTHER TELECOM: China accuses WSJ of lying over Ericsson/Nokia story**

The Chinese foreign ministry reckons the Wall Street Journal fabricated a story just to stir up trouble between Europe and China.

The story in question was based on anonymous sources, who claimed that if the European Union decided to follow the UK's lead in banning Huawei kit from its members' 5G networks, China might just have to impose export bans on Ericsson and Nokia to teach it a lesson. For some reason, China is finding it easy to believe that anything published by the US press must have political undertones.

"This piece of information is made up with ulterior motives, it is maliciously fabricated news aimed at undermining good and cooperative relations between China and EU," Wang Wenbin, a spokesperson for the Chinese Foreign Ministry, is quoted as saying by the state-approved Global Times. Apparently, Wang also moaned about other media covering the WSJ story – uh oh.

Apparently keen to show the WSJ that two can play at the anonymous sources game, the Global Times quoted an unnamed former Ericsson exec as saying "[The Wall Street Journal] wants to destroy China-EU friendly relations." Meanwhile Wang has also been spouting the standard vengeful bluster in response to the UK continuing to push back on China's civil rights abuses in Hong Kong.

<https://telecoms.com/505677/china-accuses-wsj-of-lying-over-ericsson-nokia-story/>

#### **OTHER TELECOM: With Broadband on the Senate's Plate, Will the U.S. Get Served?**

Kevin Taglang | Analysis | Benton Institute for Broadband & Society

Senate Majority Leader Mitch McConnell (R-KY) is expected to roll out a \$1 trillion COVID-response bill as early as the week of July 20. There's no indication yet about whether broadband will be part of the package. In addition to the House-passed HEROES Act, senators have introduced some two dozen bills to address the digital divide over the past few months. On the G&T: Tech on the Rocks podcast hosted by Benton Senior Fellow and Public Advocate Gigi Sohn, telecommunications policy advocate David Goodfriend predicted that to pass the Senate, any broadband provisions will have to be technologically neutral, temporary, and not "undermine markets" (which he clarified to mean 'no reliance on municipal broadband networks').

We are a long way from navigating ourselves out of the COVID-19 health and economic crises. Let's hope the Senate can act to help keep us all connected during the tough times ahead.

<https://www.benton.org/headlines/broadband-senates-plate-will-us-get-served>

#### **OTHER TELECOM: Google's parent company is flying balloons with 'floating cell phone towers' across the ocean to bring internet to Kenya's Rift Valley**

Loon just launched balloon-powered internet in Kenya, in partnership with Telkom Kenya.

Loon is part of Alphabet, Google's parent company.

The high-altitude balloons act as "floating cell phone towers."

<https://www.businessinsider.com/alphabet-company-loon-flies-giant-balloons-with-internet-connections-2020-7>

**OTHER TELECOM: SpaceX accuses MVDDS operators of 12 GHz band ‘take-over’ attempt**

<https://www.fiercewireless.com/regulatory/spacex-accuses-mvdds-operators-12-ghz-band-take-over-attempt>

**HEALTH EMF: Roundtable 10 Featuring Building Biologist Eric Windheim & Environmental Advocate Virginia Farver**

almost 2 hours video:

<https://www.youtube.com/watch?v=dK2CsOArGOA>

**HEALTH:**

**5G Technology and induction of coronavirus in skin cells – accepted June 9, 2020**

<https://www.biolifesas.org/biolife/wp-content/uploads/2020/07/FIORANELLI.pdf>

M. Fioranelli<sup>1</sup>, A. Sepehri<sup>1</sup>, M.G. Rocca<sup>1</sup>, M. Jafferany<sup>2</sup>, O. Yu. Olisova<sup>3</sup>, K.M. Lomonosov<sup>3</sup> and T. Lotti<sup>1,3</sup>

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<sup>3</sup> Department of Dermatology and Venereology, I.M. Sechenov First Moscow State Medical University, Moscow, Russia

“In this research, we show that 5G millimeter waves could be absorbed by dermatologic cells acting like antennas, transferred to other cells and play the main role in producing Coronaviruses in biological cells.”

**DISCUSSION**

...These DNAs are built from hexagonal and pentagonal bases and, by their motions, some holes emerge. These holes are filled by hexagonal and pentagonal extra bases which are constructed by cells. These bases could join to each other and form some viruses such as Coronavirus. It is concluded that in the next generation of mobile technology, emitted waves of towers will have more effects on biological cells.

...In this research, we have shown that new generation mobile technology, like 5G, could have the main role in constructing various types of viruses, such as Coronaviruses, within a cell. Some wavelengths in these technologies are smaller than the size of biological cells and could pass the cell membrane and enter the nucleus. These waves could be taken by dermatologic antenna, transfer to host cells, interact

with DNAs and move them. A DNA is formed from charged particles and, by its motions, electromagnetic waves emerge. These waves produce hexagonal and pentagonal holes in liquids within nucleus and the cell. To fill these holes, bases are produced. These bases join to each other and can construct viruses like Coronaviruses.

In another study, it was argued that 5G technologies cause great harm to human health. Cancer is only one of the many problems. 5G causes 720 (factorial) different diseases in human beings, and can kill everything that lives except some forms of microorganisms (12).

12. Christianto V, Boyd RN, Smarandache F. Wireless Technologies (4G, 5G) are very harmful to human health and environment: a preliminary review. BAOJ Cancer Res Ther 2019; 5:25:066.

<https://vixra.org/abs/1906.0293> or .pdf <https://vixra.org/pdf/1906.0293v1.pdf>

**Previously, it has been shown that a DNA could act as the inductor and receiver or sender of waves** (16). Thus, a DNA within a dermatologic cell like a keratinocyte receives external waves and sends them to DNAs of other cells like melanocytes.

16. Sepehri A. A mathematical model for DNA. Int J Geom Methods Mod Phys 2017; 14: No. 11, 1750152

<https://arxiv.org/abs/1707.04283> or .pdf <https://arxiv.org/pdf/1707.04283.pdf>

### **HEALTH: EMF Radiation and Health Concerns**

Is EMF Radiation (Microwave: Cell Phone, Wi-Fi, etc.) the leading cause for most illness today? - Part I

<https://sp.casasdehealing.com/emf-radiation-and-health-concerns---part-1.html>

### **HEALTH: #FilippoForcone**

AUDIO FREQUENCY TEST | 15 Hz → 22 000 Hz 3 minute video

<https://www.youtube.com/watch?v=FeXRhAKXuio>

### **HEALTH: The Dr. Carlos Sosa M.D. Story**

Please let me introduce myself. My name is Dr. Carlos Sosa, M.D.

(physician and surgeon) and I'm presently living in Medellin, Colombia in South America.

During the month of May 2006, I was forced to leave my house because of the symptoms caused to me and my family by the microwaves of a wireless Internet (WiFi) mast (or antenna). The structure had

been in our building for nearly three years and the company that owned it had been slowly raising the transmission frequency.

<https://www.electrosensitivesociety.com/uncategorized/the-dr-carlos-sosa-m-d-story/>

#### **HEALTH: Wireless at 60 GHz Has Unique Oxygen Absorption Properties**

<https://scientists4wiredtech.com/wireless-at-60-ghz-has-unique-oxygen-absorption-properties/>

#### **HEALTH: The Influence of Ionizing Radiation on Exosome Composition, Secretion and Intercellular Communication**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5029112/>

#### **HEALTH: Natural ELF fields in the atmosphere and in living organisms**

Most electrical activity in vertebrates and invertebrates occurs at extremely low frequencies (ELF), with characteristic maxima below 50 Hz. The origin of these frequency maxima is unknown and remains a mystery. We propose that over billions of years during the evolutionary history of living organisms on Earth, the natural electromagnetic resonant frequencies in the atmosphere, continuously generated by global lightning activity, provided the background electric fields for the development of cellular electrical activity. In some animals, the electrical spectrum is difficult to differentiate from the natural background atmospheric electric field produced by lightning. In this paper, we present evidence for the link between the natural ELF fields and those found in many living organisms, including humans.

<https://pubmed.ncbi.nlm.nih.gov/32034466/>

#### **HEALTH: Effects and Mechanisms of Action of Light-Emitting Diodes on the Human Retina and Internal Clock**

there is so far no evidence that LED lighting is deleterious to the human retina under normal use.

- exposure to lamps which are rich in the blue band (400-500 nm) of light spectrum leads to a disruption at night of the internal clock which is deleterious to health.
- women who are on shift work or night work have a higher incidence of breast cancer related to impaired clock function by exposure to light at night.
- teens overusing at night electronic devices rich in LED blue light have sleep disorders and sleep debt leading to worrying health issues.
- the mechanisms of action of blue-rich lamps effects include the suppression of melatonin secretion, sleep deprivation, and circadian disruption. .

- artificial light at night, a new pollutant deleterious to the circadian clock, should be considered a new endocrine disruptor because of its effects on the secretion of melatonin and estrogens.

<https://www.sciencedirect.com/science/article/abs/pii/S0013935120308379>

### **HEALTH: Cardioprotection from stress conditions by weak magnetic fields in the Schumann Resonance band**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6367437/?fbclid=IwAR2iFdujKVyRCRb0yh6ssOy7U9s-HS-c-JP-NzyOHZ8Q7lIfwiWYtWvdos0>

### **HEALTH: SCIENTISTS PIN BLAME FOR SOME CORONAVIRUS DEATHS ON AIR POLLUTION, PFAS, AND OTHER CHEMICALS**

ALMOST SIX MONTHS into the coronavirus pandemic, it's already clear that environmental pollution is responsible for some portion of the hundreds of thousands of Covid-19 deaths around the world. Now scientists are trying to pinpoint how exactly industrial chemicals make people more susceptible to the coronavirus and how much of the blame for the devastation wrought by the new coronavirus should be laid at the feet of the industry that produces those chemicals.

The link between Covid-19 and air pollution is particularly strong. A study set to publish in July linked six air pollutants in 120 Chinese cities with cases of the viral disease. Researchers in Italy have also shown that long-term exposure to air pollution is "significantly correlated with cases of Covid-19" in up to 71 provinces in that country. And a study that used data from California, set to publish in Environmental Research in August, showed that the air pollutants PM2.5, PM 10, nitrogen dioxide, carbon monoxide, and sulfur dioxide were associated with coronavirus infections. The authors of that study concluded that reducing exposure to these pollutants "will contribute to defeating COVID-19."

The vast majority of people who die of Covid-19 had at least one other illness before they got sick from the virus. Compared to people who didn't have underlying conditions, patients who had kidney disease, diabetes, lung disease, and heart disease, among other conditions, are six times as likely to be hospitalized with Covid-19 and 12 times as likely to die, according to the most recent data from the CDC.

In addition to causing medical problems that make people more vulnerable to the coronavirus, several environmental contaminants, including PFAS, also directly weaken the body's immune response. Studies have shown that in both adults and children higher levels of certain PFAS chemicals were associated with weaker responses to vaccines. The Agency for Toxic Substances and Disease Registry, a division of the CDC, recognized this evidence in an announcement it recently posted to its website on the "potential intersection between PFAS exposure and Covid-19."

With the pre-pandemic knowledge of the effects of individual chemicals and the maps showing that Covid-19 is ravaging polluted areas, the next step for researchers is to address how exactly chemicals make individual people more susceptible to Covid-19.

Others are using animal experiments to explore how chemical exposure affects the impact of the coronavirus. Paige Lawrence, a professor of environmental medicine at the University of Rochester School of Medicine and Dentistry, plans to infect mice with a mouse-adapted human coronavirus that



was built from the 2003 SARS pandemic and study how exposure to PFAS alters the course of the viral infection.

“We need to understand at a cellular level what’s changed” by chemical exposure, she said. “We can’t improve health if we don’t know what we’re trying to fix.” Lawrence’s past research has shown that the environmental contaminants dioxin and PCBs change the immune system by binding to receptor cells — an effect that, in the case of dioxin, lasts for generations.

“Endocrine-disrupting chemicals are clearly involved in driving the comorbidities and are heightening mortality risk from Covid-19,” said Pete Myers, founder and chief scientist of Environmental Health Sciences. “You can’t hide from that truth.” Myers is one of several environmental scientists who have been pushing for more than a decade — with little success — for government to limit the use of these chemicals.

“The American Chemistry Council has impeded our ability to develop meaningful regulations,” said Myers, referring to a powerful chemical industry trade group. “And the result of that is that these comorbidities have become epidemic over the last three decades. And now more people are dying than would have.”

After publication, the American Chemistry Council responded with the following statement:

Chemicals are essential to winning the fight against COVID-19 – federal and state officials have unanimously made that point clear. ACC members produce critical ingredients for cleaning and disinfecting solutions, hand sanitizer, medical supplies, and personal protective equipment for frontline workers. Our industry is working tirelessly to continue to help save lives and stop the spread of the virus.

The scientific community has a critical role to play in mitigating the spread not only of the virus, but of dangerous misinformation about its causes, effects, and potential treatments. Speculation about chemicals contributing to potentially adverse COVID-19 outcomes, this early in the pandemic, with absolutely no evidence, falls into the category of disinformation. We urge the public to be wary of individuals who seem all too quick to attach personal research interests and radical policy beliefs about chemical safety to this tragic pandemic.

<https://theintercept.com/2020/06/26/coronavirus-toxic-chemicals-pfas-bpa/>

### **ICNIRP: ICNIRP, guidelines, conflicts of interest and EU**

Two members of the EU Parliament, Claus Buchner and Michèle Rivasi, published on June 19, 2020 a document on ICNIRP. It shows the many conflicts of interest that exist among the ICNIRP members.

It clearly also shows that the ICNIRP guidelines should not be used for radiofrequency radiation. At pages 48-49 this is concluded:

“We think that the call for more independent scientific assessment in this area is, for all the arguments mentioned above and in what follows, fully justified. 49 That is the most important conclusion of this report: for really independent scientific advice we cannot rely on ICNIRP. The European Commission and national governments, from countries like Germany, should stop funding ICNIRP. It is high time that the European Commission creates a new, public and fully independent advisory council on non-ionizing radiation. The funds currently allocated to ICNIRP could be used to set up this new organisation. And given the overall rise in R&D funding via Horizon Europe, with a foreseen budget (for 2021-2027) of

between 75 and 100 billion euros, funding should in no way constitute an insurmountable hurdle to setting up this new, truly independent, body.”

<https://lennarthardellenglish.wordpress.com/2020/07/20/icnirp-guidelines-conflicts-of-interest-and-eu/>

### **INSPIRATION: What Will Future Generations Say About Us?**

What blind spots will future generations condemn us for as they tear down today’s statues tomorrow?

[https://www.fairobserver.com/region/north\\_america/john-feffer-alexander-hamilton-us-history-founding-fathers-american-world-news-06818/](https://www.fairobserver.com/region/north_america/john-feffer-alexander-hamilton-us-history-founding-fathers-american-world-news-06818/)

### **MEDIA: Inside Big Tech’s Years-Long Manipulation Of American Op-Ed Pages**

Why you should probably read opinion pieces supporting the tech giants with skepticism.

In the policy world, planting op-eds from ‘independent’ third parties is so common it has a name: “Grasstops,” a word derived from grassroots. Grasstops advocacy is not limited to the tech giants, but these companies and their allies are especially adept at using the practice to fight off regulation. As antitrust inquiries against them build in the US, it’s worth reading op-eds supporting their positions with healthy skepticism.

Unlike traditional lobbying, companies working to wield influence on politicians through op-eds are not required to disclose they’re involved, ensuring the practice will continue.

“There’s no existing regulation,” another person who’s worked on these campaigns inside the tech giants said. “It’s entirely outside of lobbying disclosures. So if they disclosed it, it would seem like excessive disclosure. It’s not even in the realm of what’s being required.”

Until lawmakers require disclosure, it will fall on news publishers to press for it themselves, and the tech giants and their associated industry groups may also want to act with integrity here too.

“News publishers should be disciplined in asking where financial backing, or communications backing came from, and disclosing that,” David Chavern, the head of the News Media Alliance, an industry group that is itself seeking an antitrust exemption so its members can negotiate together against the tech giants, told Big Technology. “It doesn’t mean you don’t run it. it means you disclose to the public exactly what’s going on.”

<https://bigtechnology.substack.com/p/inside-big-techs-years-long-manipulation>

### **MEDIA: UK Parliament wants more state censorship and it wants it now**

Apparently people sometimes say things online that UK politicians don’t like, so they want to be able to punish social media companies that allow it.

The politicians in question comprise the Digital, Culture, Media and Sport Committee, which was partly responsible for publishing the Online Harms White Paper last year. Among its aims was to stamp out 'illegal and unacceptable content'. Since illegal content is already, erm, illegal, the clear aim of the paper was to propose censorship of the internet on a sub-legal level, with the state becoming the arbiter of what is acceptable speech.

Having been ignored by the new government, which has had a few more pressing matters to attend to in the intervening year, the DCMS has published another document titled Misinformation in the COVID-19 Infodemic. Unsurprisingly it draws its Orwellian inspiration from the WHO, which apparently coined the term 'infodemic' to see if it could somehow combine the coronavirus pandemic with a bit of good, old-fashioned thought policing.

"In February, the World Health Organisation warned that, alongside the outbreak of COVID-19, the world faced an 'infodemic', an unprecedented overabundance of information—both accurate and false—that prevented people from accessing authoritative, reliable guidance about the virus," commences the summary of the new report.

"The infodemic has allowed for harmful misinformation, disinformation, scams and cybercrime to spread. False narratives have resulted in people harming themselves by resorting to dangerous hoax cures or forgoing medical treatment altogether. There have been attacks on frontline workers and critical national infrastructure as a result of alarmist conspiracy theories."

The use of the phrase 'overabundance of information' implies the committee thinks information should be restricted above whatever arbitrary ceiling the state determines. All the talk of 'people harming themselves' is a fairly standard way of sugar-coating censorship and other authoritarian acts, on the grounds that 'it's for your own good'. The clear inference is that people are incapable of making rational decisions for themselves, so the state needs to do it for them.

"We are calling on the government to name the regulator now and get on with the 'world-leading' legislation on social media that we've long been promised," said Julian Knight MP, Chair of the DCMS Committee and former Journalist, who should therefore know better. "The proliferation of dangerous claims about Covid-19 has been unstoppable.

"The leaders of social media companies have failed to tackle the infodemic of misinformation. Evidence that tech companies were able to benefit from the monetisation of false information and allowed others to do so is shocking. We need robust regulation to hold these companies to account. The coronavirus crisis has demonstrated that without due weight of the law, social media companies have no incentive to consider a duty of care to those who use their services."

Knight's claim to be shocked that tech companies profit from false information is totally disingenuous. Firms like Facebook, Google and Twitter profit from all content, good and bad. In his zeal to protect the UK population from itself, Knight also seems to have forgotten that communications watchdog Ofcom was recently given internet censorship powers anyway.

Extra-legal censorship is always about power, not harm reduction, although it frequently uses the latter as a smokescreen. The government that wants to protect us from false information about COVID-19 is the same one that had previously insisted face masks shouldn't be worn, only to now make it a crime not to wear them. Now they're claiming their judgment should supersede our own when it comes to access to information. Not only are they ill-qualified for the task, such a law would set back civil liberties in the UK by centuries.

<https://telecoms.com/505665/uk-parliament-wants-more-state-censorship-and-it-wants-it-now/>

## **SECURITY: Wednesday's Hack Shows that The Whole World Is in Your Twitter DMs**

We treat direct messages on Twitter as private conversations. Last night's hack shows that isn't the case.

Hackers briefly seized control on Wednesday of the Twitter accounts of several high-profile users — Elon Musk, Bill Gates, Barack Obama, Joe Biden, and more — and used the accounts to push a rather transparent Bitcoin scam. The social media company has returned control to the users — but not before the intruders had the opportunity to access private messages.

We detected what we believe to be a coordinated social engineering attack by people who successfully targeted some of our employees with access to internal systems and tools.

— Twitter Support (@TwitterSupport) July 16, 2020

On Thursday morning, Motherboard reported that one or more Twitter employees had given the hackers access to the accounts via an internal company tool. It's not the first time that a Twitter insider has sold this kind of access. In 2015, Saudia Arabia bribed two Twitter employees to gain access to perhaps 6,000 accounts to help the Saudi government hunt dissidents abroad, according to a 2019 Justice Department filing.

<https://www.nextgov.com/cybersecurity/2020/07/wednesdays-hack-shows-whole-world-your-twitter-dms/166986/>

AND:

### **An update on Twitter's security incident**

At this time, we believe attackers targeted certain Twitter employees through a social engineering scheme. What does this mean? In this context, social engineering is the intentional manipulation of people into performing certain actions and divulging confidential information. The attackers successfully manipulated a small number of employees and used their credentials to access Twitter's internal systems, including getting through our two-factor protections. As of now, we know that they accessed tools only available to our internal support teams to target 130 Twitter accounts. For 45 of those accounts, the attackers were able to initiate a password reset, login to the account, and send Tweets. We are continuing our forensic review of all of the accounts to confirm all actions that may have been taken. In addition, we believe they may have attempted to sell some of the usernames. The most important question for people who use Twitter is likely — did the attackers see any of my private information? For the vast majority of people, we believe the answer is, no.

<https://www.benton.org/headlines/update-twitters-security-incident>

**SECURITY:** <https://threatpost.com/chris-vickery-ai-will-drive-tomorrows-data-breaches/157595/>

**SECURITY:** <https://threatpost.com/diebold-atm-terminals-jackpotted-using-machines-own-software/157575/>

**SURVEILLANCE HEALTH: Bipartisan Bill Would Require Passenger Temperature Checks at TSA Checkpoints**

<https://www.nextgov.com/emerging-tech/2020/07/bipartisan-bill-would-require-passenger-temperature-checks-tsa-checkpoints/167006/>

**SURVEILLANCE: Israel approves cellphone tracking of COVID-19 carriers for rest of year**

<https://www.thejakartapost.com/news/2020/07/21/israel-approves-cellphone-tracking-of-covid-19-carriers-for-rest-of-year.html>

**SURVEILLANCE:** <https://telecoms.com/505657/uk-tracking-app-causes-more-problems-as-it-breaks-privacy-laws/>

**TECHNOCRACY: Patrick Wood interview about covid and technocrats, social engineering,**

45 minute interview

<https://www.youtube.com/watch?v=HKdsl57SUZo&feature=youtu.be>

**TECHNOCRACY: ‘Green Economic Growth’, Decoupling Is A Myth**

Using Orwellian “double-speak”, green growth means economic contraction. Sustainable Development, aka Technocracy and the Great Reset will go down in history as the greatest plundering of global assets ever conducted.

This article is pro-green but points out that “the idea that we can do both [be “green” and grow at the same time is a persistent mythology, an article of faith no less, that needs to be discarded.” –TN Editor

<https://www.technocracy.news/green-economic-growth-decoupling-is-a-myth/>

**SMART METERS: Richard Tell testify on the safety of smartmeters**

• Click link:

<https://zoom.us/j/94704815983?pwd=UEo4bW0yTFJoaWdieW8yQ2VhVlZGUT09>

## **SMART METERS: Snohomish PUD smart meters are a boondoggle**

Tuesday at 9 a.m. and 1:30 p.m., the Snohomish Public Utility District will accept public questions and comment on a proposed smart meter program. Call 253-215-8782. The meeting ID is 947 0481 5983. The password is 886302. Send questions to: [emailcommissioners@snopud.com](mailto:emailcommissioners@snopud.com).

The plan is to sell \$100 million in bonds to install smart meters. But smart meters are not smart. Unlike analog meters, they run constantly, so they use more electricity and will raise rates. Smart meters are not grounded, have insufficient surge protection, cost more, wear out quicker, can be hacked, are made of plastic, and catch fire.

They broadcast up to 190,000 times daily, reporting on our every electrical behavior. Data collected can be sold. They violate our right to privacy. Some people are hyper-sensitive and are made miserable.

<https://www.heraldnet.com/opinion/snohomish-pud-smart-meters-are-a-boondoggle/>

## **SMART METERS: Smart meters: Ofgem approves SPEN's plan to access household data**

SPEN expects to make improvements in the operation of its networks and the services provided to customers through the use of smart meter data

<https://www.energylivenews.com/2020/07/21/smart-meters-ofgem-approves-spens-plan-to-access-household-data/>

## **UTILITIES: PG&E Responds to CAL FIRE's Finding on 2019 Kincade Fire in Sonoma**

County [https://energycentral.com/news/pge-responds-cal-fire's-finding-2019-kincade-fire-sonoma-county](https://energycentral.com/news/pge-responds-cal-fire-s-finding-2019-kincade-fire-sonoma-county)

AND:

## **Post-Bankruptcy PG&E Faces Lawsuit for Its Role in Causing the 2019 Kincade Wildfire**

Weeks after exiting bankruptcy caused by massive fire liabilities, California's biggest utility faces another wildfire lawsuit.

<https://www.greentechmedia.com/articles/read/post-bankruptcy-pge-faces-lawsuit-for-its-role-in-causing-the-2019-kincade-wildfire>

## **UTILITIES: ComEd Agrees to \$200M Fine on Federal Bribery Charge**

The Chicago-area utility has struggled with key clean-energy and grid-modernization plans amid a scandal.

JEFF ST. JOHN JULY 17, 2020



A bribery scandal has swallowed the Exelon subsidiary's legislative goals over the past year.

Illinois utility Commonwealth Edison has agreed to pay a \$200 million fine in relation to a federal investigation over bribery charges that have cast a shadow over its policy efforts in the state capital.

Friday's deferred prosecution agreement filed in federal court will require ComEd to pay the fine and comply with regulations for three years. But the agreement, which is awaiting a court hearing date, will allow the 4.2-million-customer utility and parent company Exelon to avoid a criminal trial that could further expose details of its alleged wrongdoing to public scrutiny.

ComEd stands accused of steering jobs, contracts and payments to associates of Illinois House Speaker Michael Madigan in exchange for favorable treatment in the state legislature, including legislation related to rate increases, WBEZ reported Friday. Exelon CEO Anne Pramaggiore left the company in October, and top lobbyists have also left the company.

The scandal has cast a pall over ComEd's relationship with state lawmakers and clean-energy advocates, and has stymied its efforts to move ahead with preferred legislation. That includes an effort to remove ComEd from the capacity market operated by mid-Atlantic grid operator PJM as a means of protecting its nuclear power plants from unfavorable pricing likely to emerge from the Federal Energy Regulatory Commission's December decision to force PJM to impose minimum prices on a wide array of state-supported grid resources.

ComEd was able to convince some pro-clean-energy groups to include this "fixed resource requirement" proposal in a state bill called the Clean Energy Jobs Act, which combines a mandate for 100 percent renewables by 2050 with other policies pertaining to carbon reduction, electric transportation and job creation. That bill, along with a rival clean energy bill called Path to 100, failed to move ahead this spring during the state legislature's emergency session, which was constrained by COVID-19.

Illinois' Future Energy Jobs Act, passed in late 2016, qualified Exelon's Clinton and Quad Cities nuclear power plants to receive hundreds of millions of dollars per year as zero-carbon resources. Nuclear power supplied roughly nine-tenths of its annual electricity supply, but PJM's implementation of FERC's minimum-price ruling could threaten the financial viability of the utility's nuclear power fleet, ComEd contends.

ComEd is also struggling to justify its \$9.53 billion capital plan for 2020 through 2023, which will add more than \$5 billion to its capital rate base and lead to price hikes for customers in future years, even as prices decreased slightly this year, a fact that's drawn the ire of ratepayer watchdog groups.

Under a landmark 2011 state law, ComEd has spent \$2.6 billion on a smart grid plan that has allowed it to install smart meters for all its customers and deploy distribution automation technology that improved grid reliability significantly over the past decade.

But the same law allows the utility to file its capital plans under formula rate updates that give the Illinois Commerce Commission little power to alter them, beyond reviewing the spending after the fact for impropriety or waste. ComEd had sought to extend this formula rate structure for another decade but was unable to pass that legislation amid its bribery investigation.

ComEd has argued that its capital plan is needed to continue to meet state policies calling for grid modernization and increased amounts of renewable energy. Roughly half of its annual \$2.2 billion spending plan involves replacing aging power poles and lines and updating underground power cables. But the plan also includes more high-tech projects; funding totaling \$370 million was allocated this year for infrastructure improvements such as LED streetlights and new substations to support data centers

operated by companies attracted by the region's relatively low-cost and carbon-free electricity, as well as access to state incentives passed last year.

ComEd also plans to spend about \$100 million this year on expanding its existing volt/VAR optimization system, which uses smart-meter and grid-sensor data to fine-tune voltages across key circuits and add about 5,000 more automation devices to the 4,000 already deployed.

<https://www.greentechmedia.com/articles/read/comed-agrees-to-200m-fine-on-federal-bribery-charge>

#### **UTILITIES: New York adopts net metering alternative, delays implementation due to COVID-19**

<https://www.utilitydive.com/news/new-york-adopts-net-metering-alternative-delays-implementation-due-to-covi/581812/>

#### **UTILITIES: NREL looks to tackle PV waste before it's too late**

With up to 80 million tons of solar photovoltaic panels expected to hit landfills globally by 2050, the national lab has taken a look into refining how crystalline silicon module recycling is done — in order to establish a circular market.

<https://pv-magazine-usa.com/2020/07/20/nrel-looks-to-tackle-pv-waste-before-its-too-late/>

#### **UTILITIES: Breaking: Explosions at GCL polysilicon fab have reportedly taken down 10% of global production capacity**

California-based investment banking group Roth Capital Partners has reported four flash explosions on Sunday and a fifth yesterday “working their way through the GCL facility across multiple systems in a chain-reaction-like sequence.”

Roth cited reports of four flash explosions at the GCL facility on Sunday followed by a fifth yesterday and suggested overpressure in the rectification and boron removal filter may have led to leakage of trichlorosilane gas, which can react explosively with moisture in the air.

The explosions are reported to have occurred during equipment maintenance at the facility and are said to have taken 50 MT of polysilicon production capacity offline.

[https://pv-magazine-usa.com/2020/07/21/explosions-at-gcl-polysilicon-fab-have-reportedly-taken-down-10-of-global-production-capacity/?utm\\_source=pv+magazine+USA&utm\\_campaign=19f44f59e1-RSS\\_EMAIL\\_CAMPAIGN&utm\\_medium=email&utm\\_term=0\\_80e0d17bb8-19f44f59e1-158914461](https://pv-magazine-usa.com/2020/07/21/explosions-at-gcl-polysilicon-fab-have-reportedly-taken-down-10-of-global-production-capacity/?utm_source=pv+magazine+USA&utm_campaign=19f44f59e1-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_80e0d17bb8-19f44f59e1-158914461)

july 25,26,27 - August 10th

I'm taking a 2 week break from posting unless there is an absolute emergency....  
I've been underwater with a health issue; not covid but lyme....and haven't been able to get ahead of it..  
..and will also be traveling in early august, hopefully.  
I recommend Derick Broze's analysis of what just transpired with the withdrawn paper on covid and 5G-  
you can read it or watch the video.  
Under health the energy medicine community predicts the new era of energy medicine  
Also see the criticism of US spectrum policy that was published today, under 5G, and 2 good articles  
from NZ....  
and criticism of the EV smart meter paradigm....Christmas in July in my book  
Best, Patricia

### **5G: Paper blaming COVID-19 on 5G technology withdrawn**

<https://retractionwatch.com/2020/07/26/paper-blaming-covid-19-on-5g-technology-withdrawn/>

AND:

### **Retracted coronavirus (COVID-19) papers**

We've been tracking retractions of papers about COVID-19 as part of our database. Here's a running list, which will be updated as needed.

<https://retractionwatch.com/retracted-coronavirus-covid-19-papers/>

AND:

### **So About That 5G-COVID19 "Study" ....Derrick Broze analysis:**

36 minute video

<https://www.youtube.com/watch?v=WnJM3WQjhNo>

or read: <https://www.naturalblaze.com/2020/07/does-a-newly-published-study-prove-the-5g-covid19-connection.html?>

**ACTION ITEM: consider commenting to this erroneous AARP blog.**

<https://www.aarp.org/home-family/personal-technology/info-2020/5g-gigabit-internet-speed.html>

**EVENT: Dr. Paul Heroux 5G Health Risks Explained- Tuesday Night see screen shot**

EVENT CALENDAR: Join Robert F. Kennedy's Children's Health Defense for a live, virtual press conference on Thursday, July 30, 2020 at 3 p.m. ET/12 noon PT to discuss this exciting milestone in our landmark case against the Federal Communications Commission (FCC) – the submission of the evidentiary brief.

To fulfill our commitment to stopping the harmful exposure of our children to 5G and wireless radiation, CHD has taken this giant step toward unprecedented litigation against the FCC and you are invited to learn more directly from our attorneys and petitioners.

The case is challenging the FCC's refusal to review its 25-year-old obsolete wireless "health guidelines" and to promulgate scientific, human evidence-based radio frequency emissions ("RF") rules that adequately protect public health. The FCC's false "health guidelines" have enabled the uncontrolled proliferation of harmful wireless technology and more recently, the deployment of dangerous 5G installations.

CHD's lawsuit asserts that the FCC's refusal to update these guidelines despite the submission of overwhelming evidence of harm from wireless technology radiation, is capricious, arbitrary, not evidence based, and an abuse of its discretion. The success of our case will be a game changer in the battle to stop Big Tech from further damaging children and all life.

This evidentiary brief is the main submission in our case and provides the evidence upon which the petitioners rely. It cites thousands of studies, including those conducted by U.S. government agencies, and numerous reports that show clear evidence of harm. It also outlines scientifically the established mechanisms of harm from wireless radiation. Additionally, the brief shines a light on the human evidence of widespread sickness, which the FCC ignored when it egregiously closed its docket on the issue on Dec. 4 2019.

This illuminating and celebratory press conference will be held the day after CHD files its brief on July 29, 2020 in the U.S. Court of Appeals for the District of Columbia.

During the live Zoom conference, we will offer an opportunity for questions from the media and our community of concerned citizens. Register today and watch children's advocacy history in the making.

<https://childrenshealthdefense.org/protecting-our-future/facts-you-can-use/5g/chd-v-fcc-press-conference-evidentiary-brief-filing/>

### **CELLPHONES: CNN: Velshi: Come clean, cell phone companies**

2 minute news video from 2011

<https://www.youtube.com/watch?v=saTcfymiJ-U>

### **CELLPHONES: Fight Over Berkeley Cellphone Warnings Returns to Court**

SAN FRANCISCO (CN) — The city of Berkeley's five-year battle with the wireless industry over cellphone-radiation warnings came to a head Thursday before a federal judge, who will decide whether the city's 2015 ordinance requiring retailers to provide guidance on avoiding radio-frequency exposure is preempted by federal law.

The required disclosure states in part: "If you carry or use your phone in a pants or shirt pocket or tucked into a bra when the phone is ON and connected to a wireless network, you may exceed the federal guidelines for exposure to RF [radio frequency] radiation."

The disclosure instructs consumers to refer to the user manual for more information. The law also allows retailers to add their own messages to the disclosure.

The Cellular Telephone Industries Association (CTIA), a wireless industry trade group, challenged Berkeley's ordinance in June 2015. The group claimed the law violates the First Amendment by forcing retailers to spread a misleading, government-crafted message.

The fight is currently unfolding alongside a federal class action in San Francisco over cellphone radiation, where consumers claim Apple failed to warn them certain iPhones exceed the radio-frequency compliance standards set by the Federal Communications Commission.

U.S. District Judge Edward Chen put the Berkeley disclosure law on hold in September 2015, finding one line about a greater risk of exposure to cellphone radiation for children was baseless and unscientific. After Berkeley removed that line from the message, Chen lifted the ban in January 2016. The association quickly appealed, urging a three-judge panel to reverse the judge's ruling during a hearing in September 2016.

The Ninth Circuit upheld the ordinance twice, first in 2017, then again on remand from the U.S. Supreme Court, which asked the panel to reconsider in light of the high court's decision to strike down California's required disclosures on abortions services in *National Institute of Family and Life Advocates (NIFLA) v. Becerra* in June 2018.

The divided appellate court then ruled 2-1 that the Berkeley ordinance was complementary to and did not conflict with federal law and policy regulating radio-frequency radiation.

Chen heard from two legal powerhouses Thursday during a hearing on the CTIA's motion for judgment on the pleadings conducted by videoconference.

CTIA counsel Theodore Olson, former solicitor general under President George W. Bush, told Chen that the city's required disclosure undermines the FCC's unequivocal pronouncements about cellphone safety.

This past December, the FCC issued an opinion and order declaring that all cellphones "legally sold in the United States pose no health risks," a finding bolstered by two additional statements of interest filed by the FCC in the case.

Olson said any deviating statements would risk upsetting the balance of public safety and promoting wireless technology that Congress entrusted the agency with maintaining.

"Congress wanted uniform standards that set up an appropriate balance between safety and speedy development. A high-functioning national network cannot exist if there are different radio-frequency standards in each community. Additional warnings could create an erroneous statement of public risk," he said. "What Berkeley is attempting to do is upsetting that balance and create a non-uniform system that would over-warn and make people upset about risks that don't exist."

He added the FCC provides adequate information about radio-frequency exposure on its website and information on how to avoid excessive exposure are already included in cellphone user manuals.

Representing Berkeley, Harvard law professor Lawrence Lessig said the CTIA and the city have the same interests, and that Berkeley's disclosure reinforces the FCC's guidelines. "The reason it mandates information is to help those who are skeptical of the science underlying the FCC's radio-frequency guidelines," he said.

Lessig said the city doesn't believe the FCC's 2019 order "in anyway establishes a national policy that prohibits anyone from uttering complementing statements."

Judge Chen asked: "How would you articulate Berkeley's interest if you accept the agency's view that in fact there is no danger. But there may be a perception of danger, and we need to address those skeptical consumers?"

Lessig replied, "We would call it the same interest that the FCC has had. The one thing we're arguing is we have the same right the FCC has exercised to give this information to consumers so they can make a judgment for themselves."

Olson argued Congress gave the FCC the express responsibility to both ensure that cellphones are safe and that people aren't afraid to use them.

"It doesn't make people feel more comfortable about it because it draws attention to safety issues that the FCC believes are explained in the manuals and the FCC website," he said, noting that the agency tried several times to make itself clear, both through the 2019 opinion and two statements of interest.

"They are making it explicit as they could — 'don't mess with what we've done here.' Anything else risks

a non-uniform policy. If you over-warn people, you might scare them away and cause them not to use it.”

Chen asked both sides to submit additional briefing on what kind of deference he should give to the FCC’s order and statements, then took the argument under submission.

<https://www.courthousenews.com/fight-over-berkeley-cellphone-warning-mandate-returns-to-federal-court/>

#### **CELLPHONES: T-Mobile to dump old cell phones without voiceover LTE technology**

<https://www.yahoo.com/gma/t-mobile-dump-old-cell-062517507.html>

#### **CHILDREN: Toxins, EMF's and Their Impact On Our Children's Health with Beth Lambert**

5 minute video

[https://www.youtube.com/watch?v=F2BUG\\_6s0TA](https://www.youtube.com/watch?v=F2BUG_6s0TA)

#### **ENVIRONMENT: Lawsuit filed over CMP's flashing light & radar**

<https://foxbangor.com/news/item/lawsuit-filed-over-cmps-flashing-lights/>

<https://www.pressherald.com/2020/07/23/richmond-nonprofit-sues-cmp-over-tower-lights-radar-plan/>

Times Record-Press Herald 7/23/20

<https://www.pressherald.com/2020/07/23/richmond-nonprofit-sues-cmp-over-tower-lights-radar-plan/>

Richmond nonprofit sues CMP over tower lights, radar plan

The crux of the lawsuit is split between concerns that the radiation emitted by the radar could cause health problems and how the tower lights impact local wildlife.

**FCC:** <https://news.bloomberglaw.com/tech-and-telecom-law/fcc-allows-staff-to-telework-through-june-2021-citing-pandemic>

5G:

**UK: More than 1,600 people sign petition calling for 5G roll out halt in Bath** - Somerset Live, 24th July 2020

<https://www.somersetlive.co.uk/news/somerset-news/more-1600-people-sign-petition-4361789>



5G: <https://www.hawaiitribune-herald.com/2020/07/23/hawaii-news/council-exercises-caution-in-regard-to-5g-development/>

5G:

French mayors have called for a halt to the construction of 5G mobile masts until health risks can be assessed.

The Green mayors of Bordeaux, Nantes, Grenoble and other big cities have joined a revolt against the technology amid fears of dangerous radio waves and damage to the environment.

Groups acting for “electro-sensitive” sufferers claim that the transmissions damage health. “We know these waves have an impact on our brains and that people are showing electro-sensitive symptoms, with ever greater suspicions that they cause cancer,” said Sophie Pelletier, head of Priartem-Electro-sensibles de France association.

Anne Vignot, newly elected Green mayor of the eastern city of Besançon, tweeted: “5G causes problems for public health. Don’t rush for technologies that run us into a brick wall.”

<https://www.thetimes.co.uk/article/frances-electro-sensibles-tell-macron-to-pause-5g-over-health-risks-5dg5l7ccz>

5G: <https://www.barnstablepatriot.com/news/20200723/candlelight-vigil-in-centerville-residents-press-town-to-appeal-t-mobile-cell-tower-ruling>

5G Robert F. Kennedy Jr. Medical Tyranny Big Pharma Bill Gates AI Immunity Passport Surveillance State!

5G at 34 minutes

(the second 1/2 of the interview is about 5G, also ends with issue of assassination, so don't listen if you don't want to, I realize there is controversy about vaccination activism and other topics he discusses, Over 39,000 people viewed this interview with Daniel)

Dark Journalist Daniel Liszt Deep Breakthrough Interview with Attorney, Children's Advocate and Best-Selling Author Robert F. Kennedy Jr. This is the Information You Need to Know Now!

Medical Tyranny Big Pharma AI Immunity Passport Surveillance State TOPICS Bill Gates Anthony Fauci Surveillance Tracking Immunity Passport

Senator Robert Kennedy Sr. Media Censorship Paid Co-opted Journalists Internet of Things 5G Big Pharma Profiteers

<https://www.youtube.com/watch?v=I8gQ258X5IU>

5G:

<https://www.activistpost.com/2020/07/fcc-authorizes-20-million-for-rural-broadband-but-will-it-be-safe.html>

5G: <https://www.executivegov.com/2020/07/fcc-commences-5g-spectrum-auction-ajit-pai-quoted/>

ANTENNA <https://www.abqjournal.com/1479325/cellphone-tower-proposal-postponed-ex-company-st-johns-college-seek-approval-for-oncampus-tree.html>

5G: Interview With a Death Tower Whistleblower Part 2

<https://www.youtube.com/watch?v=OcLYCprVYU> 20:18 min.

(I have not watched)

### 5G: SCAN ONLY \_ CAN'T COPY COMMENT FDA COMMENT ON FCC RF LIMITS

Digital health of the Center for Devices and Radiological Health

<https://www.fcc.gov/ecfs/filing/108192566617397>

<https://ecfsapi.fcc.gov/file/108192566617397/13-84%3B%2019-226B.pdf>

This is a scanned copy of a submission that cannot be cut and pasted but is from the Dept of Human Services/FDA

(utterly ridiculous)

### 5G: 2 good articles from NZ:

<http://www.gisborneherald.co.nz/okategoriserade/20200725/5g-confusion-clarification-one-step-at-a-time/>

<http://www.gisborneherald.co.nz/letter/20200725/rma-only-breached-closer-than-5-5m-to-a-5g-access-point/>

6G: <https://www.law360.com/technology/articles/1295387/broadcasters-ask-dc-circ-to-halt-fcc-s-6-ghz-reorg>

5G: 5G phones are here, but it will take years to unlock their full potential:

<https://globalnews.ca/news/7219071/5g-phones-full-potential/>

## 5G: The evolving 5G case study in United States unilateral spectrum planning and policy

1. Introduction
2. Rationales for expediting 5G domestic spectrum availability
3. ITU spectrum management benefits and costs
4. Unanticipated costs in expediting 5G service before completion of inter-governmental coordination
5. Old lessons forgotten, ignored or avoided
6. Delay triggered by the failure to achieve early and complete resolution of intragovernmental and corporate disputes
7. Longer term consequences of unilateral spectrum planning
8. Risks to ITU legitimacy and efficacy
9. Conclusions

### References

### Highlights

- This paper summarizes how the International Telecommunication Union seeks to harmonize spectrum allocations globally.
- Rather than rely on inter-governmental coordination, the U.S. FCC has reallocated 5G spectrum unilaterally.
- This paper identifies first mover benefits, but also offsetting costs generated by expediting 5G broadband services spectrum.
- Raising trade, industrial policy and national security issues will trigger conflict and questions about ITU legitimacy.

### Abstract

This paper tracks increasingly aggressive initiatives by the United States government to reallocate spectrum on an expedited and unilateral basis well before conclusion of inter-governmental coordination. Rather than embrace the customary commitment to achieve consensus on global spectrum allocations at the International Telecommunication Union (“ITU”), the Federal Communications Commission (“FCC”) has auctioned off large blocks of frequencies for the next generation (“5G”) of wireless services.

The FCC might have framed its first 5G auction, reassigning Ultra High Frequency (“UHF”) spectrum, as a one-time deviation from compliance with long standing, intergovernmental coordination procedures. These frequencies have ideal signal propagation characteristics and the Commission could use financial incentives—unavailable in most nations—to expedite “repacking” by incumbent broadcasters willing to

move, share or abandon spectrum in exchange for ample financial compensation. However, the FCC has continued to auction off 5G spectrum on grounds that it must find ways to abate an acute shortage of wireless bandwidth and doing so will regain or maintain global leadership in wireless technologies. This paper offers a critical rebuke to unilateral spectrum management, because the short-term benefits expected by the U. S. government likely will be offset by countervailing harms to 5G manufacturers, carriers and consumers. The paper tracks fractious preparation for the ITU's 2019 World Radio Conference by the U.S. delegation and the mixed record achieved there. Additionally, the paper explains how injecting trade, industrial policy and national security issues at the ITU can trigger more delays and disputes, including possible retaliation by nations displeased with U.S. efforts to subvert traditional technology optimization goals.

A worst case scenario has the ITU deadlocked and unable to reach closure on “mission critical” spectrum planning issues at World Radio Conferences, convened every four years. The paper concludes that costs and likely challenges to the efficacy and legitimacy of the ITU will reduce the benefits accruing from the FCC's unilateral, spectrum planning campaign. (more at link)

<https://www.sciencedirect.com/science/article/abs/pii/S0308596120301038>

**5G MEDIA:** <https://www.hollywoodreporter.com/news/john-oliver-enlists-alex-trebek-catherine-ohara-billy-porter-more-help-quash-coronavirus-conspiracy-1303731> includes 5G

**5G INDUSTRY: TSP #170 - Is 5G Dangerous?** 1/2 hour video

In this episode Shahriar discusses some of the concerns surrounding the 5G Cellular Wireless Technology. It is important to understand the technology and the history of why 5G is unique in some ways compared with 4G LTE.

<https://www.youtube.com/watch?v=R0xwyVlqsRo> (have not watched)

**5G INDUSTRY: ATAC, Fastweb, Ericsson: here is the first 5G bus (with video surveillance inside)**

The presentation is not only an opportunity to present the first bus connected to 5G , but it is a real proof-of-concept of what 5G can do to improve everyone's daily life. The application of 5G and its peculiarities to a means of public transport, for example, can return advantages on several fronts, revealing a real new horizon that strongly raises the bar of innovation precisely on those fronts where a smart city can aspire to grow.

With this experimentation we have shown that 5G is a real innovation platform, capable of making public mobility more efficient, intelligent, safe and sustainable. We are very satisfied with the collaboration with Fastweb as part of the Roma Capitale # Roma5G project. If in recent years we have laid the foundations for the development of highly innovative projects that will benefit citizens and businesses, in recent months the health emergency has made clear the importance of accelerating the digital transformation process of the country and entire sectors , including local public transport. The applications we presented today are proof of this.

Giancarlo di Bernardo, Sales Director of Ericsson Italia

For the development of the new digital services, an integrated platform has been created by Fastweb and Ericsson that uses the 5G 26Ghz frequencies made available by Fastweb and is composed of two

cells, located on a building in Via Prati Fiscali, capable of covering the 'entire route taken by the bus within the testing perimeter. The two antennas, connected to Fastweb's fiber optic transport network, transmit to Ericsson's IoT platform which collects all the data and video images from the bus in real time. The terminal that receives the 5G signal was installed directly on the bus and connected to a router that allowed to aggregate the various network components for the realization of the different use cases. 5G experimentation has shown that technology is able to make our vehicles safer and more efficient. Not only can we automatically identify critical situations in buses in real time, but we are also able to detect operating anomalies in advance. This allows us to intervene before they turn into operational problems, with obvious benefits for our customers.

Francesco Amendola ICT Director of Atac SpA

The images will be available live at the ATAC control center and can be used to monitor "live" any inconvenience that may occur.

This use scenario can also be used to collect data on the flow of passengers in the vehicle, but also to counteract the so-called free riding and evasion. In addition, the driver's cabin is equipped with an emergency button connected to the cloud which, if activated, sends an alarm to the control center, indicating the vehicle's GPS position.

<https://www.punto-informatico.it/roma-5g/>

### **HEALTH: Wi-Fi (2.4 GHz) affects anti-oxidant capacity, DNA repair genes expression and apoptosis in pregnant mouse placenta**

Iran : July 24th, 2020

'Conclusion: Our results provide evidence that Wi-Fi signals increase lipid peroxidation, SOD activity (oxidative stress), apoptosis and CDKN1A and GADD45a overexpression in mice placenta tissue. However, further experimental studies are warranted to investigate other genes and aspects of pregnancy to determine the role of Wi-Fi radiation on fertility and pregnancy.'

[http://ijbms.mums.ac.ir/article\\_15510.html](http://ijbms.mums.ac.ir/article_15510.html)

### **HEALTH: Energy Medicine Gets Serious**

Exploring a new force in health and healing, both doctors and wellness practitioners are uncovering the potential of electromagnetic, light and sound interventions to heal your 'energy body.'

By Beth McGroarty

With Joanne De Luca & Janine Lopiano, co-founders, Sputnik Futures

"In every medical tradition before ours, healing was accomplished by moving energy."

– Albert Szent-Gyorgyi, Biochemist and Nobel Prize Winner

When people think "energy medicine," they think "the wellness world": all those practices, whether acupuncture, chakra balancing, reiki, qigong or sound baths, that focus on healing the human "energy body." It's a striking fact that Western medicine and ancient medicines, such as Traditional Chinese Medicine (TCM), Ayurveda and shamanic traditions, have revolved around a radically different model of the human body and healing. Western medicine has embraced the anatomical and biochemical model: innovating for that material body of flesh and blood. The major indigenous medical systems—even though they were, quite fascinatingly, separated by thousands of years and miles—independently devised healing approaches squarely based on the body as an energy field. They posit that a vital energy (whether "qi" in TCM or the doshas in Ayurveda) controls the processes of our bodies and brains, and that health and healing come from manipulating the flow of energy that courses through our bodies at specific energy points and balances the body's electromagnetic field (which extends beyond the skin).

In modern Wellness Land, of course, nothing has been trending more furiously than ancient energy medicines, whether Ayurveda or shamanism. The desperation with which people seem to be trying to “fix” their energy is only matched by the skepticism of critics, decrying all this NewAgey, out-there wellness. Better to think like an anthropologist, and ask, what are people seeking so fervently...and why? And whether you’re a believer in acupuncture but laugh at crystal-mania, medicine—which ignored the “energy body” for a century—is now validating that we are very much a complex electromagnetic field, immersed in other complex environmental, electromagnetic fields. A real paradigm shift is underway, with more scientific researchers (whether from Harvard or NASA) rapidly discovering that the body is indeed a complex biofield of electromagnetic frequencies and light waves that serve as “control central” for our physical and mental functioning. It’s shaking up entrenched thinking in biology. Scientists are also uncovering the ways that the entire world is electrodynamic: We’re surrounded by both natural—and increasingly man-made— frequencies that constantly change human cells. We’re at an interesting moment: where the medical world and “ancient wellness” are finding some common (at least in principle) theoretical ground.

The future: the medical, technology and wellness worlds all innovating new tools to optimize the human energy body. Joanne De Luca and Janine Lopiano, co-founders of future-forecasting consultancy Sputnik, who’ve researched the many new directions in energy medicine for years, note: “The future of medicine is understanding the crucial relationship between the material and ‘field’ aspects of the body, and adjusting human frequencies—and light, sound and electromagnetic interventions are crucial here—to prevent illness and boost health.”

Or, as Anna Bjurstam, wellness pioneer, Six Senses, and a keynote speaker at the 2019 Global Wellness Summit (GWS) on how energy medicine is now moving far beyond “woo woo,” puts it: “Indigenous people have been the knowledge-keepers of energy medicine for centuries, but the scientific community is now taking it seriously, so the world will listen. The invisible will become visible, and energy medicine will become as important as wellness itself.”

This trend takes many directions. Medicine will be disrupted by discoveries about the bioelectric “language” that cells use to coordinate so many of our biophysical processes and will invent new technologies to positively impact/regulate the body’s “command central” electromagnetic fields. Frequency therapies (using sound, light and electromagnetic interventions) will rise in the wellness world. (Note: This year’s “Wellness Music” trend, exploring how music is being reinvented as a precision energy medicine, is very much a chapter of this trend.)

As humans get increasingly bombarded by man-made electromagnetic frequencies in our hyper-networked world (Hello, 5G)— anxiety over this potentially dangerous energy will rise, as will new solutions designed to shield us from the biophotonic blitz. And more wellness centers and travel destinations will go “high energy”: serving up even more ancient energy medicines; more high-tech, biohacking technologies to upgrade our energy field; and more blending the best of both ancient and modern solutions. In sum, energy medicine is about to get far more serious.

## DISCOVERIES ABOUT THE “ENERGY BODY” WILL DISRUPT MEDICINE

Tapping into our electromagnetic fields has been critical in medicine for years, whether electrocardiograms/EKGs for the heart or MRI scanning. But electrifying new insights will keep coming around bioelectricity, or the “organized lightning” that our cells use to grow and communicate. Biologist Michael Levin[1] at Harvard’s elite Wyss Institute states: “When cells and tissues are alive, there’s a bioelectric potential between the inside of a cell and the outside...So... bioelectricity is the spark of life. But more importantly, the bioelectric potential is not just a byproduct of living; it is a medium that cells exploit to communicate with each other and to form networks that are much more than the sum of their parts.” The future of medicine is scientists like Levin uncovering the bioelectric “language” that cells use to coordinate everything from their own regeneration to cancer suppression.

There’s a flurry of new directions in energy medicine coming from the scientific world. Just a few examples...

## Biophotonics: Light Technologies to Transform Human Health

Decades ago, German physicist Fritz-Albert Popp identified biophotons, which are particles of light that radiate from the cells of all living things and, with laser-like coherence, transmit cell-to-cell information[2]. Scientists theorize that this biophotonic “web of light” may be responsible for the overall regulation of our biological systems. The future: using coherent light (lasers or lighted crystals) to positively impact tissues and organs, but also to modulate the body’s energetic system, the bedrock of healing. European physicians, such as Dr. Bodo Kohler, are putting biophotonic findings into clinical practice with bioresonance therapy, whose goal is to harmonize the biophysical fields of the body. The NES miHealth platform’s mission: use bio-electro stimulation and magnetic fields to transmit info to the body at frequencies that match specific parts of the body to activate self-healing.

### Pulse Electromagnetic Field Therapy (PEMF)

NASA scientist Dr. Thomas Goodwin found that tissues exposed to the correct pulse electromagnetic field (PEMF) see a 300 percent increase in mitochondria, the energy plants in cells responsible for aerobic capacity and restoring tissues to wellbeing[3]. PEMF frequency healing is now being used in more hospitals and wellness destinations, and an explosion of use-at-home technology devices—whether Oska Wellness or Nevro— are using PEMF neurostimulation to try to tackle pain and inflammation.

### Optogenetics

Neurobiologists are creating new “optogenetic” tools, which excite neurons using light, to allow them to map the brain’s connections and activate and silence brain circuits. These tools look to one day be used to treat pain, blindness, epilepsy and depression[4].

### Electroceuticals

Big Pharma will take big notice of the big implications of an emerging branch of medicine called electromagnetic pharmacology[5], where wirelessly activated treatments and medication can be switched on/off remotely. Imagine radio waves that activate insulin production, the immune system or gene therapy—or even next-gen drugs that get activated by smartphone apps.

## MANAGING NEGATIVE ENERGY

### Electromagnetic pollution anxiety & solutions will grow

Humans buzz naturally at a 40-hertz frequency but never have our bodies been so bombarded by man-made electromagnetic frequencies—whether from cell phones, base stations, appliances, power lines, Wi-Fi routers or security systems. As Sputnik’s researchers note: “We now live in an intensely wireless, networked world and are immersed in an invisible sea of signals, with our bodies just another conduit. As the Internet of Things (IoT) peaks in the next five years, electromagnetic pollution will become the new public health issue. Both anxiety and solutions will rise[6].”

Electromagnetic pollution will only surge. The next-gen cell network 5G being rolled out (where basically everything becomes an IP address) requires far more cell towers bunched together, and it will unleash an unprecedented storm of higher-energy photons streaming through our dwellings and bodies. Climate change and extreme weather are disrupting the Earth’s electromagnetic field. And experts argue that proliferating technology is overburdening our aging electrical infrastructure, exposing us to high-frequency electromagnetic frequencies (EMFs) called “dirty” electricity.



When you dive into the science of cellphones' impact on human health, it's a contradictory mess. The World Health Organization classifies wireless radiations as a class 2B carcinogen[7], while the The Centers for Disease Control and Prevention states there's no definitive scientific evidence. The studies on electromagnetic pollution's impact on human health overall shrilly disagree, and it could be because they have relied on observational data. But public health experts and watchdogs (Europe is out in front) will increasingly demand careful testing of how all these artificial frequencies impact human cells, and whether electro-pollution is triggering stress and disease.

The future: Experts (such as stress doctor, Wendy Hurwitz) argue that all of our devices will and must become compatible to the human energy field. Architects will build homes, schools, workplaces and smart cities designed to maintain a healthy human energy field, just as they now build for sustainability. Engineers will devise solutions that help shield us from dangerous EMFs. Geo-location-based apps will identify areas of high geopathic and energy stress.

Wellness resorts and real estate developers are already making moves to shield people. At Germany's Villa Stephanie, a flick of a button copper-lines your room, so all electricity and Wi-Fi signals are blocked[8]; all rooms at Germany's Lanserhof Tegernsee also block Wi-Fi and electro-smog with a single switch. San Francisco-based wellness real estate developer Troon Pacific's luxury homes have shielded cables in all bedroom walls (close to where beds will be placed) to block exposure to electromagnetic fields. They also have the Wi-Fi system plugged into Power over Ethernet (PoE) switches, so when you flip off the lights at night, you also turn off all Wi-Fi signals.

#### MORE "HIGH ENERGY" WELLNESS DESTINATIONS

More ancient energy approaches, more futuristic energy biohacking – and more combining both

In the wellness world, programming around ancient energy medicines has risen so powerfully that it sometimes feels there are now as many sound baths and shamans as spas. The hunger and the willingness to travel for that energy upgrade will only intensify.

We'll see even more ancient energy medicines at the buzziest new wellness destinations. New York City's newest wellness mecca, The Well, with its East-meets-West team of doctors and healers, not only offers TCM and Ayurvedic programs but also a "vibrational energy healing" track. New-to-us ancient energy medicines will define new destinations, such as Malabar Lu Jong Retreats (in Africa and Spain), grounded in the Tibetan Buddhist energy practice of Lu Jong.

More wellness centers will go all in on the highest-tech energy medicine, such as Los Angeles' biohacking centers, Upgrade Labs, where you can experience the latest light, vibrational and electromagnetic interventions, including PEMF therapy, vibrational plates, red and infrared light treatments and electric brain stimulation.

Design features in Troon Pacific luxury homes include Wi-Fi systems plugged into PoE switches, meaning all Wi-Fi signals turn off with lights at night.

Ahead-of-the-now wellness destinations, which function more like experimental labs than mere "properties," will increasingly blend ancient energy medicines with cutting-edge energy technologies. 1440 Multiversity, a new, fascinating, part wellness resort, part "wellness university" in the Santa Cruz redwoods near Silicon Valley (think: a neo-Esalen-meets-Stanford for tech professionals seeking a little more meaning in life), has a faculty of 400 experts and a packed lineup of workshops heavy on energy medicine. And whether a shamanism or sound healing workshop, they typically unite doctors, PhDs, top wellness practitioners and ancient + modern energy healing techniques. Six Senses Resorts has been making eye-opening ancient + modern energy medicine moves. The brand's

recent “Grow a New Body” program—dubbed “neoshamanism”—brings together the latest thinking/technologies on the energy body from biology and neuroscience with ancient shamanic energy upgrading practices[9]. Designed by leading doctors and Dr. Alberto Villoldo, a medical anthropologist who has studied shamanic healing practices for 25+ years, the program deploys many approaches to fix your energy body: on the modern side, energy-medicine evaluations with doctors, light therapies, IV infusions, altitude training and ozone and oxygen therapies. Shamanic approaches include a mitochondria-boosting, phytonutrients-rich diet; fasting; plant medicine; and intensive spiritual work to clear negative energy, entities and emotions.

Six Senses NYC (coming early 2020)—part wellness resort, part wellness residences, part membership club concept—will rewrite what an urban wellness community could be. And while it’s hard to grasp all its planned wellness offerings, their energy bio-hacking + ancient energy medicine mix is pretty head-spinning: from PEMF therapy, light therapies, chakra balancing, transcranial direct brain stimulation, vibrational plates and pulse massage, etc. All seamlessly delivered as you hang out: How about a little ITENs electric therapy on your shoulders over dinner, while your grounding-sock-covered feet rest on negative ion plates?

## ENERGY FUTURES

Science is now validating some crucial ancient energy medicine principles. For instance, scientists at Seoul National University have confirmed the existence of the body’s meridians, which they call the “primo-vascular system” and see as a critical part of the cardiovascular system, as well as the physical basis of the Acupuncture Meridian System (these acupoints are, of course, the key to the energetic effects of shiatsu massage, qigong, tai chi, yoga postures, etc.)[10].

We’re at a pivotal, powerful moment with energy medicine. In the coming years, there will be a rush by medical and technology companies to further crack the code on how energy networks organize our bodies and brains, and they will use that knowledge to design interventions into our electromagnetic and biophotonic fields to prevent disease and boost physical and mental health. It will create entirely new medical approaches, new products and new business models.

Both “wheat” and “chaff” will appear in consumer markets, as energy healing is particularly susceptible to exploitation and quackery. Hard science will validate some ancient energy approaches and invalidate others. Ancient energy medicines will teach Western medicine a few things, and scientific breakthroughs will point the way to new directions in wellness. New common ground leads to new conversations.

The wellness world focuses more on self-awareness and emotional and spiritual healing and connectedness, but, as physicists, biologists and neuroscientists uncover the mechanics of human energy fields—how they mesh with other people’s energy fields, and how we all mesh with the energy fields of the universe—the new energy medicine may solve a pesky little mystery that’s been preoccupying humans for millennia...consciousness, itself.

**“Energy futures” in health and wellness? A very strong “buy.”**

<https://www.globalwellnesssummit.com/2020-global-wellness-trends/energy-medicine-gets-serious/>

See also:

### **Focus Shifts from Sleep to True Circadian Health**

Any solution claiming to reset circadian rhythms must have the TIMING of light at its center. This will become a central pillar of wellness: from circadian lighting to circadian diets to apps that use timed light doses to crush jet lag.

By Beth McGroarty

## A \$432 BILLION SLEEP MARKET AND WE'RE STILL NOT SLEEPING

<https://www.globalwellnesssummit.com/2020-global-wellness-trends/circadian-health/>

### HEALTH: By EMF & EHS Law's own David Wedege

Lost Thread

July 24th, 2020

New health study on radiation is on the way, writes the European Commission

Lost Thread is edited and registered with the Press Board with responsibility for the content.

NEWS / FOREIGN: Since 1999, the EU has officially relied on the border recommendations on mobile radiation coming from the ICNIRP Radiation Committee, which is housed with and mainly funded by the German federal state.

But the European Commission will now conduct a new health assessment of the radiation area outside of ICNIRP.

It writes the European Commission in a letter to the Italian lawyer Francesco Scifo , who is based in Sardinia's capital, Cagliari.

The recommendations of ICNIRP, which ICNIRP updated this year for the first time since 1998, are based solely on established harm effects under the 1999 agreement with the EU.

But the EU's forthcoming study must also examine possible harmful effects.

"This will be done in cooperation with the Commission's independent advisory bodies. This could lead to a review of the Council of Ministers' Recommendation 1999/519 / EC , which is based on the guidance of ICNIRP ", the Commission writes about the forthcoming radiation study in its reply to Francesco Scifo.

The reply was sent to the Italian directly on behalf of the EU's Cypriot Commissioner for Health and Food, Stella Kyriakides, and it was sent by Wojciech Kalmarz, Head of Unit at the European Commission in Brussels.

More critical EU voices

In 1999, the Council of Ministers adopted a recommendation formalizing EU cooperation with the ICNIRP Committee.

In the Recommendation, which is voluntary to follow for Member States, the EU defined that ICNIRP should base its guidelines only on established harm effects. It excludes guidelines that protect against possible effects that science may suspect.

In 2015 , the EU agency SCENIHR published a major research review which found no cause for concern about the wireless rollout. The SCENIHR report became quite controversial in research circles, and several researcher names behind the report had historically received funding from the wireless industry for their work.

In 2018, SCHEER - the successor to the defunct SCENIHR agency - was able to classify 5G as a possible new environmental threat in a report on possible new environmental issues.

In February 2020 , the European Parliament's research service, EPRS, published a note pointing out that 5G could become an experiment in population health that risks violating human rights.

ed a 100-page report funded by Parliament's Green Group. The skin-braided partner of the EU, ICNIRP, for having many documented financial connections to the wireless industry.

<https://tabttraad.home.blog/2020/06/19/to-eu-parlamentatikere-vil-hudflette-forskergruppen-bag-graensevaerdierne/>

**HEALTH: includes Apple removes chemicals from devices causing rashes**

<https://www.imore.com/unpacking-apples-mammoth-carbon-neutral-commitment-and-its-environmental-vision>

HOUSING:

**Building science and radiofrequency radiation: What makes smart and healthy buildings**

M.Clegg MargaretSears MargaretFriesen TheodoraScarato RobMetzinger CindyRussell AlexStadtner Anthony B.Miller

<https://www.sciencedirect.com/science/article/pii/S0360132319305347>

AND:

**WIRELESS SYSTEMS INCREASE RADIO-FREQUENCY RADIATION IN BUILDINGS: BUILDING INDUSTRY SOLUTIONS**

<https://ehtrust.org/wireless-systems-increase-radiofrequency-radiation-in-buildings/>

**ICNIRP: ICNIRP Cartel**

<https://www.investigate-europe.eu/en/2019/how-much-is-safe/>

“ICNIRP does not have an open process for the election of its new members. It is a self-perpetuating group with no dissent allowed. Why is this not problematic?” asks Louis Slesin, editor of the publication Microwave News in New York. He has followed the scientific debate on radiation and health for decades. There are not enough highly qualified scientists, explains Mike Repacholi, an EMF research pioneer who founded ICNIRP in 1992, to Investigate Europe. The excluded research often does not meet high standards, adds Eric van Rongen, head of ICNIRP. “We are not against including scientists who think differently. But they must fill the profile in a specific vacant position and cannot just be taken in for their dissident views”, says van Rongen.

Major overlap of scientists

ICNIRP is the de facto standard-setter of radiation safety limits in much of Europe. Still, it is just one out of several scientific groups. The groups, however, are to a remarkable degree staffed by the same experts. Of 13 ICNIRP scientists, six are members of at least one other committee. In the WHO group, this applies for six out of seven. Every third researcher in the EU commission that gave radiation advice in 2015 was represented in other groups. This is not so strange, according to Gunnhild Oftedal. She is a member of both the ICNIRP commission and WHO’s research group. “People who demonstrate that they are skilled are asked to contribute. Look at who sits on boards and councils in general, this is what it is like everywhere in society”, she says. The committees agree on a basic premise between themselves: The only documented health risk from mobile radiation is the heating of body tissue. The radiation safety limits are set to prevent this from happening. As long as one adheres to these, there is no health risk, according to all but one committee. For most mobile users it is easy to stay safe in relation to these limits: They are only reached or exceeded by standing directly in front of a base station at a shorter distance than 10 meters. Are not nearly five billion mobile users worldwide proof that this works well? ICNIRP is at the centre of the clash of opinions between scientists.

Mike Repacholi founded ICNIRP as well as the WHO EMF project.

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<https://multerland.wordpress.com/2019/06/02/icnirp/>

New Chair (May 2020)

Chair: Rodney Croft (from May, 2020). [Article: ICNIRP's new chair Rodney James Croft] When this article started, in June 2019, ICNIRP's chair was Eric van Rongen. Videos with Eric van Rongen; 1, 2, 3, 4. Eric van Rongen is ICNIRP's vice chair, from May 2020.

Former Chair (June 2019)

Eric van Rongen participates in the Dutch "Gezondheidsraad": visit webpage Commission Electromagnetic Fields, scroll down to "secretarissen".

As the chairperson of ICNIRP he is the official connection with and superior, authoritarian influence of ICNIRP on WHO, and EU, and via EU on all European member states and treaty countries. Via WHO he has a world wide authoritarian influence and power. The connection with EU has been admitted in the letter that Wojciech Kalamarz sent me. In not any former letter neither on the website of EU or WHO is published what exactly the name is of the group that decides the electromagnetic radiation guidelines. The confirmation of EU that ICNIRP is the EU guidelines creator can be found in "EU guidelines are fraudulent, 3". All other connections of ICNIRP and can be found in the ICNIRP Cartel. Missing detail in this Cartel: the connection of ICNIRP (via Eric van Rongen) with the Health Council of the Netherlands. Alarming: world wide the research results of ICNIRP are considered to be infallible, and therefore indisputable. This phenomenon is comparable with the system of a church, a religion, and being infallible and therefore indisputable are the most essential characteristics of religious totalitarianism. To make it understandable: the "God" of ICNIRP is the dogmatic science that ICNIRP considers as the right and only true one. ICNIRP, and its believers: WHO, EU, the Dutch Health Council, all in the ICNIRP Cartel, show absolute intolerance of other views and opposition.

Totalitarianism is a political concept of a mode of government that prohibits opposition parties, restricts individual opposition to the state and its claims, and exercises an extremely high degree of control over public and private life. It is regarded as the most extreme and complete form of authoritarianism.

Source: Wikipedia

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EU has ties to ICNIRP

Dr. Pall – 12 questions to the EU commission never were answered. <https://multerland.files.wordpress.com/2019/08/12safetyguidquestions-1.pdf>

EU Guidelines are Fraudulent – 3 parts

5G \* EU-guidelines are fraudulent 1

Posted on March 29, 2019

5G \* EU guidelines are fraudulent 2

Posted on May 17, 2019

5G \* EU guidelines are fraudulent 3

Posted on July 30, 2019

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<https://multerland.wordpress.com/2019/03/29/5g-eu-guidelines-are-fraudulent/>

**ICNIRP: LETTERS: Caution needed (scroll down)**

THE Council for the Protection of Rural England's Regeneration Manifesto, recently launched, is welcome as are its recommendations, such as those for improved broadband and mobile phone coverage. 5G trials are imminent in Ryedale.

A note of caution here, however. This intervention by government to improve the local economy comes with risks of which not all will be aware - risks to health for all and in particular our young from increasing exposure to electromagnetic radiation. Although reports of actual harm are legion, cause/effect takes a generation to demonstrate.

Government, it seems, are prepared to take the risk, preferring commercial, economic interests to public safety, just as we saw with its fracking agenda.

In setting safe levels for public exposure to radiation, Public Health England depends upon the International Commission on Non-Ionising Radiation Protection (ICNIRP)'s determining of these levels. However, by its own admission, ICNIRP lacks the manpower to assess the considerable evidence pointing to biological harm at levels far below those currently accepted. The result is that the science justifying current levels is extremely unsafe. With 5G, exposure to radiation is expected to rise.

We must resist further expansion of our exposure to radiation until reports of biological harm to humans, animals and plants are properly appraised - the precautionary principle. The World Health Organisation's report, pending, is unlikely to suffice in view of the possible conflict of interest allegedly present in membership of its and other relevant reporting bodies.

<https://www.gazetteherald.co.uk/news/18605056.letters-mp-feet-championing-cause/>

**SURVEILLANCE:** <https://www.timesofisrael.com/shin-bet-said-to-have-secretly-tracked-israelis-phones-for-at-least-2-5-years/>

**UTILITIES:** <https://www.activistpost.com/2020/07/media-exposes-more-about-current-ohio-and-illinois-utility-bribery-scandals-but-what-about-smart-meters.html>

**UTILITIES SMART METERS: Mass EV charging: is a can of worms hiding under the bonnet?**

**The Government's push to electrify road transport and domestic heating could place major cost burdens on consumers, says a new report**

Electric vehicles have become something of a panacea for politicians as they grapple with how to decarbonise the transport sector. But for some engineers, the headlong rush to electrify road transport and domestic heating too is a major cause for concern. LTT reported in May the top-down analysis of Michael Kelly, the former chief scientific adviser to the Department for Communities and Local

Government (LTT 29 May & Letters 26 Jun). Now a more bottom-up analysis has been prepared by retired engineer Mike Travers. Both reports have been published by the Global Warming Policy Foundation think tank.

“It is clear that the costs of supporting all the plans the Government has for transport and homes is going to be very high, and it is going to be made worse by the fact that the changeover is not being thought through, let alone planned effectively,” says Travers. “Part of the problem is that there is no institution or organisation in a suitable position to do so. The distribution companies own the transformers and cables, but may or may not be responsible for the smart meters. They therefore have little interest in some form of smart control [of electricity demand]. As profit-making companies, they also have no interest in investing for the future load increases, as they can charge for all the upgrading work as it is required.”

Vehicle to Grid: but why?

Many EV advocates champion the idea of ‘Vehicle to Grid’ charging. This involves vehicle owners feeding electricity back into the grid from their vehicle’s battery when electricity demand is high. Travers dismisses the concept, at least for residents. “This is unlikely to happen, not because it cannot be done but because it would be ridiculous to do. Firstly, many EVs will be on charge for 12 hours per day, and thus unavailable for supplying the grid. Secondly, it is hard to imagine why anyone possessed of a fully-charged EV would allow the battery to be drained when they might need the car at any moment, and when there was a shortage of electricity.

“Thirdly, the battery is direct current (DC), but the grid requires alternating current (AC). It is unlikely that any homeowner would be prepared to invest £800 in a DC-to-AC inverter to allow them to sell electricity, particularly since the sales value they will derive from doing so would be small. If your EV has cost £10 to charge at 15p/kWh, would you allow the grid to take half of that charge, if it had a value of only £5? The grid would have to pay an extraordinary premium to get someone to bother to connect their car up.”

<https://www.transportxtra.com/publications/local-transport-today/news/66262/mass-ev-charging-is-a-can-of-worms-hiding-under-the-bonnet->