The background of the top half of the page features a series of concentric, overlapping circles in shades of red and white, creating a ripple effect that resembles sound waves or a signal. The circles are centered and expand outwards, filling the upper portion of the page.

The 5G Network

What You Don't Know May Kill You

by ReINETTE Senum © April 2017

How would you feel if you knew that an untested technology is being deployed across your country, with no government oversight, no transparency, no public input, no regulations, and no long-term studies on health and environmental impacts? How would you feel if you knew that sensors are being rolled out to be installed in everything—clothing, appliances, building materials, cars, cosmetics, toys, computers, furniture, and so on—turning our world into the Internet of Everything as components of this untested technology?

Wouldn't that be cool, living in a virtual reality where every single object and living thing is connected into a wireless global network, allowing every single thing we do to be completely monitored and controlled, and collecting every bit of data about our lives as we go about our days? Ultimately, all of this information will be sold to (and hacked by) corporations, nations and various alphabet agencies to be analysed, synthesised and made available to anyone to do with it as they please. And it's all because there's this new, untested, millimetre-wave frequency, known as the 5G spectrum, that is now being deployed throughout America, under the radar.

My Early Years with Wireless Technology

I was actually an early adopter of wireless technology. In fact, I made a living from it back in 1990–91 when I had the first cellular phone store in Nevada County, California. It was on E. Main Street, Grass Valley, directly across from the Grass Valley City Hall, and was called Empire Cellular. It was bequeathed to me, name and all, while I was sitting at the bar of the Nevada City North Ridge Inn with my former high school buddy, Dirk McCall. He was looking for an exit strategy from the business, while I was looking for an income.

Soon after inheriting Dirk's cellular phone store, I began making a hefty profit from the business. But within a year and a half, I'd sold the business for pennies and hitched a ride to Alaska to do commercial fishing. I'd been bored out of my wits.

However, it was during that short year-and-a-half stint at Empire Cellular that I became enamoured with the cellular phone industry and became a huge advocate. Once I'd opened my doors for business, I was the local go-to person for cellular service and installation. You could find me regularly yanking out a car's dashboard components to insert a cable and pop antennas atop my

What is 5G?

The 5G rollout was announced in June 2016 by Tom Wheeler, the then Chairman of the Federal Communications Commission (FCC), in a speech stating that unprecedented numbers of new microwave radiation frequencies will be unleashed on the public.

These frequencies within the microwave spectrum include never-before-released millimetre-wave (MMW) frequencies. They will produce *synergistic* adverse biological effects in combination with existing emission levels.

Two months before this announcement, the US National Toxicology Program study, the most comprehensive study of rats ever performed, deemed that microwave radiation causes DNA breaks and cancers of the brain and heart. The FCC ignored the scientific results and its duty as a regulatory agency and proceeded with the announcement of the 5G rollout.

What are millimetre waves?

MMWs are the fastest, shortest, highest-intensity wavelengths within the microwave spectrum. They are specialised frequencies used in medicine to treat certain cancers. They are also used in airport body scanners, where high incidences of cancers are found in Transport Security Administration workers who operate them. All wireless microwave radiation causes biological harm, but MMWs pose *unique* biological harm. Because MMWs are short, varying in millimetre thickness, insects, plant foliage, human skin and eyes are especially vulnerable to them.

MMWs have not been safety-tested by the FCC or by any agency that supports the FCC's radio-frequency emissions safety levels.

How will this 5G infrastructure be achieved?

The plan is to build dense placements of small-cell distributed antenna systems (DAS) on every light and electric pole in every neighbourhood and public right-of-way. No place will be safe. DAS, along with surveillance cameras on every pole, are necessary to facilitate this mass connection and collection of data. All devices will be connected to become part of the proposed Internet of Things: driverless cars, cellphones, home appliances and smart meters. Radio-frequency identity (RFID) chips will be placed into or onto every product sold and, eventually, everyone.

customers' cars. I bestowed upon my customers the merits and benefits of the growing global cellular service world. I was looking forward to the day when we had a sky full of low Earth orbit satellites, giving us superior cellular capacity in every nook and cranny of the world. Back then, I couldn't wait.

After owning the first cellular phone store in Nevada County, I was encouraged to keep an eye on the industry over the last 25 years and was waiting excitedly for its development. However, over the course of those years, the telecom industry has fallen out of my favour.

Don't get me wrong: there are many benefits to the wireless world. I'm not debating that. In fact, I must note that the irony has not gone past me that, as I write this, I'm completely dependent upon a laptop computer and a wireless modem. It's just that the 5G network is not about better and faster cell service—not even close.

The Untested 5G Spectrum Frontier

It's not what you think. It certainly wasn't what I was thinking back in 1991. In fact, I had no idea what this industry had planned for our entire planet.

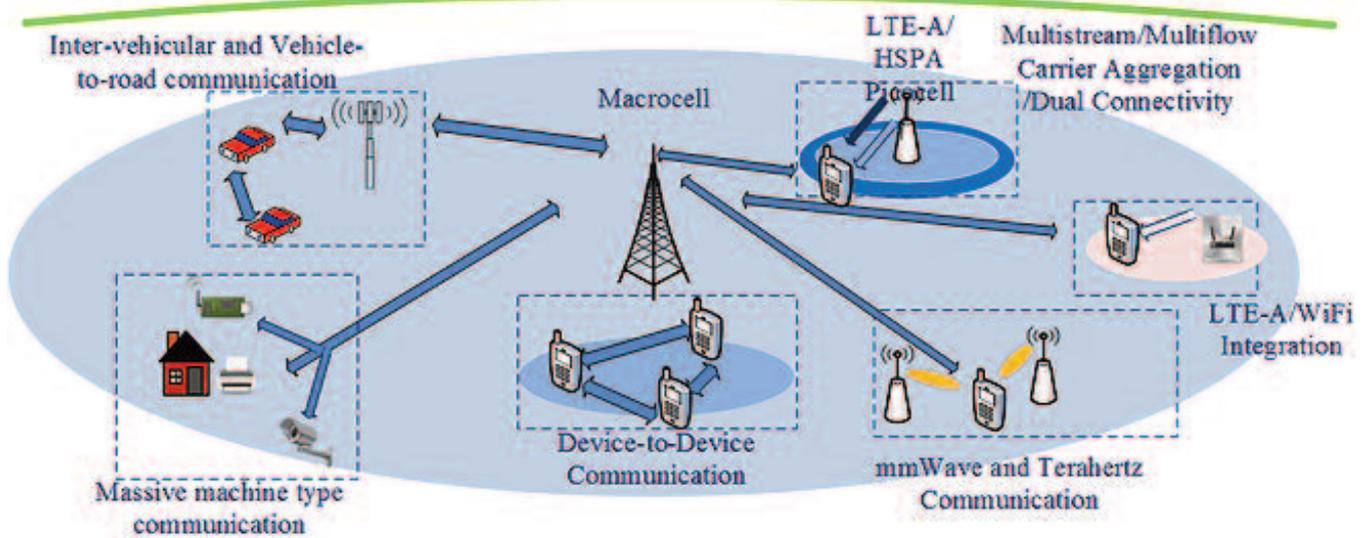
This never became more apparent than during last year's press conference on 20 June when Tom Wheeler, the controversial then-Chairman of the US Federal Communications Commission (FCC) and former head of the vast lobby group, the Cellular Telecommunications and Internet Association (CTIA), proposed the unbridled, massive deployment of commercial 5G transmitters in 2020. Anticipating "tens of billions of dollars in economic activity" with US companies being "first out of the gate", Wheeler warned the American public: "...stay out of the way of technological development... Turning innovators loose is far preferable to expecting...regulators to define the future."¹

Those pesky regulators: what do they think they are doing protecting the public?

Then, with little fanfare, the FCC approved swathes of untested high-frequency networks for private-sector exploitation, ultimately setting a very dangerous trend with no mention of the health or environmental impacts, oversight or corporate responsibility.

By 2020, the telecom industry intends to cover America with over two million "small cells" installed on every lamp





A general 5G cellular network architecture

post, on buildings, power poles, basically everywhere, giving no person, bug or animal a place to escape.

In addition, those hidden "sensors" that I mentioned earlier, which will be tucked into every item that you buy off a shelf, will be monitoring, tracking and sending out signals. Scientists have discovered that the skin, our largest organ, responds to 5G, and that our sweat ducts can act as antennas and receive signals.² These sensors have *not* been tested for safety, and experts in the field expect a jump in melanoma rates around the nation.

Leading health advocates and respected scientists around the world are alarmed, to say the least.

Dr Joel M. Moskowitz, Director of the Center for Family and Community Health at the University of California, Berkeley, warns that "precaution is warranted before unleashing 5G technology on the world".³

Former US government physicist Dr Ron Powell points out that 5G "...would irradiate everyone, including the most vulnerable, to harm from radiofrequency radiation: pregnant women, unborn children, young children...the elderly, the disabled, and the chronically ill... It would set a goal of irradiating all environments..."⁴

The Politics of Everything

The likelihood of your hearing about 5G technology is close to nil because that's the way the telecommunication industry wants it. It's being rolled out under the radar as much as any untested, certainly unvetted, technology possibly can be.

It was after finding out recently that the League of California Cities⁵ had uncovered our California legislators' attempt to slip Senate Bill 649 into the consent items like a Trojan Horse, among a basket of 350 other pending California bills, that I was forced by my conscience to search even deeper into the 5G technology, coming out

the other end more and more disturbed and with many more questions than answers. I want to say this again: I have more questions than answers.

Don't count on your local newspaper to cover this. The corporate media seem to have turned a dangerously blind eye to this legislation, ignoring the threat against democracy. The bill itself was authored by California Senator Ben Hueso, one of the biggest recipients of telecom industry contributions in the state.

In the meantime, the wireless industry is pushing this through so quickly that it is ignoring the International EMF Scientist Appeal to the United Nations. As of 22 March 2017, the Appeal has received 225 signatures from 41 nations. It has been sent "...to the United Nations... to encourage the World Health Organization (WHO) to exert strong leadership in fostering the development of more protective EMF guidelines...about health risks, particularly risk to children and fetal development. By not taking action, the WHO is failing to fulfill its role as the preeminent international public health agency..."⁶ This is only one reason why I feel that we need to slow down the expansion of the 5G wireless network.

Our health is at risk while our state representatives are allowing these corporate perpetrators to continue their deployment of unsafe technologies. Meanwhile, most of the public have no idea what is about to be foisted upon our biosphere.

We have to understand that the higher the "G" or "generation" rating, as in 1G, 2G, 3G, 4G, the more toxic this technology is. We are now entering the uncharted territory known as 5G. Microwave and electromagnetic field (EMF) exposure at the 4G level has already decreased the overall health of Americans.

Under the current 5G plan, every square inch of America (and several other nations) will be bathed and

covered in penetrating and irradiating microwaves like never before. It will be impossible to escape this.

Impacts on Wildlife and the Environment

My former business, Empire Cellular, still exists and is now known as Golden Empire Cellular. It's located on Idaho Maryland Road in Grass Valley, along with Sons Development and Sierra Solar, both green businesses. And while one may associate wireless technology with the green movement, it is not part of it.

If you're an environmentalist, don't fool yourself: this technology is the antithesis of "green". Any so-called environmentalist or environmental organisation that says differently should not be trusted.

The danger to bees alone is monumental. Studies have already proven the impact on bee colonies with much older and less toxic technology. I can only imagine what the 5G network with its additional two million "small cells" installed throughout America is going to do to our food industry if the bees disappear.

There is enough research and enough evidence that should cause our leaders to take great pause before allowing this 5G technology to be deployed...

Lynne Wycherley writes at TheEcologist.org: "Life's exquisite electro-physiology is still being discovered. Researchers at Bristol University reported in May [2016] that bees' hairs are highly sensitive to flowers' delicate EMFs. In controlled trials in Switzerland, bees reacted to mobile-phone signals with high-pitched 'piping': a cue to desert a hive. Other studies show that mitochondria, the tiny power houses in our cells, are at risk from our new EMFs. And that even DNA, in its delicate antenna-like structure, may be frequency-sensitive.

"The long-term, ecological implications of our new, anthropogenic radiation are not known. But peer-reviewed studies revealing harm to birds, tadpoles, trees, other plants, insects, rodents and livestock offer clues."⁷

An Orwellian Future for America?

This is a technology that has been in the making for nearly 60 years. And while there are plenty of studies, including government-funded studies, that prove the increased risk of cancer and brain tumours from this technology, there are equally as many industry-funded research studies that expel contradictory information—dangerous myths that continue to be propagated in the corporate-owned media.

Even more alarming is that the US Telecommunications Act of 1996 bans any local government from making a decision based upon negative health impacts from the

wireless industry. In other words, this is a 20-year-old gag order that was placed upon the American people before they had any clue as to what an expanded and amped-up wireless network could look like.

Meanwhile, leaders around the world are taking the harmful effects much more seriously: "...countries like Switzerland, Italy, France, Austria, Luxembourg, Bulgaria, Poland, Hungary, Israel, Russia and China have set RF [radio-frequency] exposure limits 100 to 10,000 times less than the USA. They recognize that there can be non-thermal biological effects from wireless radiation."⁸ These nations are assuming the precautionary principle, which states that "if an action or policy has a suspected risk of causing harm to the public, or to the environment, in the absence of scientific consensus (that the action or policy is not harmful), the burden of proof that it is not harmful falls on those taking that action".⁹

For well over 50 years, scientists and industry insiders have known that microwave radio-frequency radiations, pulse-modulated day in and day out, are very toxic, particularly to pregnant women and children, and yet our leaders allow the telecom industry to continue its expansion in a completely unbridled manner, eviscerating the very protections that prevented the industry from steamrolling us in the first place.

We can expect in the future that our health will only continue to become more and more compromised, the bad effects manifesting in myriad ways. EMF sensitivity is cumulative, building up in our bodies over time and causing individuals to have great difficulty in warding off a simple flu while showing ill health in countless forms.

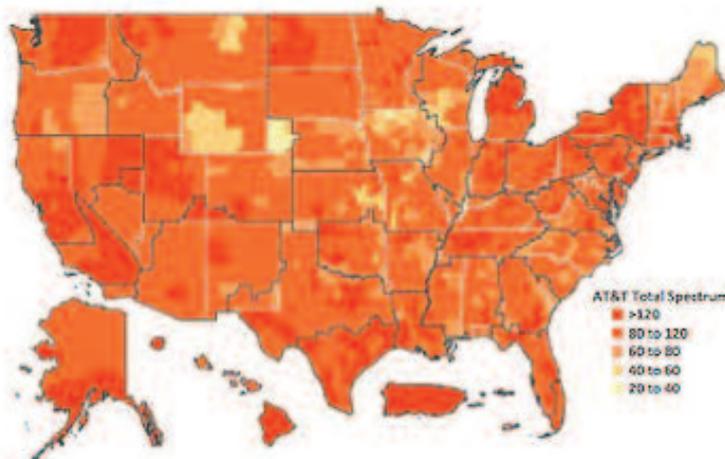
There is enough research and enough evidence that should cause our leaders to take great pause before allowing this 5G technology to be deployed in every neighbourhood across America by an industry that is unrestrained and unregulated. Once fully implemented, this technology will turn Earth into a wireless planetary cage. Its proponents intend to monitor and control everything, while compromising our health and the biosphere around us. I'm sorry if this sounds Orwellian, but that's because it is. ∞

About the Author:

In 1994, Reinette Senum became the first woman to cross Alaska alone. It was during this isolated winter solo trek, which she filmed for *National Geographic*, that she learned the power of community. For the last dozen years, Senum's focus has been on building her home town, Nevada City, California, as a resilient community via creative and unconventional means. Through risk assessment, public outreach and a hands-on approach, Senum has been at the forefront of curating Nevada City towards a more sustainable, connected future. Whether as a city council member, mayor or community activist, she has developed community-changing projects such as the city-sanctioned sustainable vision, the organic

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Nevada City Farmers Market, portable micro-houses for the homeless, and the county-wide TimeBank. She has changed the conversation while reweaving community for a more challenging and unpredictable future.

For additional information and articles, visit Reinette Senum's website <https://www.thefoghornexpress.com>.

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