

Harvard Physicist: ‘No Safe Way To Implement 5G’



5G technology is the holy grail of Technocrats who desperately want to enable a ubiquitous command-and-control network of IoT devices to control human populations en-masse. Thus, safety research on toxic effects is being aggressively suppressed. □ TN Editor

According to the telecom industry, 5G, the “5th Generation” wireless network, is required to give people the wireless freedom they crave and need. Described by HP as “blazingly fast,” 5G, which is 70 times faster than its predecessor, 4G, “will replace cable internet for good,” allowing you to download a two-hour high-definition movie in three seconds flat.¹

5G is also being touted as necessary to enable the development and proliferation of self-driving cars and other future technologies. However, as noted in a May 2019 Forbes article,² robocar designers are not, in fact, relying on 5G for their development, and the cars themselves do not actually need that kind of bandwidth to perform the required functions.

Not one one red cent spent on safety testing

While “blazingly fast” 5G might sound attractive to many who have grown up in the internet era, there are significant health and environmental concerns relating to 5G radiation that are not being properly addressed, which may have profound implications both in the short and long term.

If increased internet speed and reliability are the end goal, then fiber optic connections would be a far better (and safer) way forward. Indeed, we need more wired connections and fewer wireless ones as it is. With 5G, microwave radiation exposures will so massively increase, there’s no doubt in my mind that mankind will eventually end up regretting its shortsightedness.

Remember that no one has problems with the faster speeds of 5G, no one. What any serious student of health has concerns with is that the data are being distributed wirelessly, when in most cases the data could be distributed easier and less expensively over fiber optic cables.

No Safety Studies Have Been Done

Unlike the 4G technology currently in use, which relies on 90-foot cell towers with about a dozen antenna ports on each, the 5G system uses “small cell” facilities or bases, each with about 100 antenna ports.³

These cell bases will be mounted to already existing infrastructure such as utility poles. Ultimately, many if not most homeowners can expect to end up with a 5G cell base mounted right outside or very near their home.

As noted by a Federal Communications Commission representative during a February 6, 2019, senate commerce hearing (above), no 5G safety studies have been conducted or funded by the agency or the telecom industry, and none is planned.^{4,5}

In short, there’s no telling exactly what might happen to our ecology and the people being exposed to this novel wireless technology 24/7, once

it's deployed. As noted by Dr. Cindy Russell,⁶ executive director of Physicians for Safe Technology, in her August 2018 paper in the journal Environmental Research:⁷

“Like other common toxic exposures, the effects of radiofrequency electromagnetic radiation (RF EMR) will be problematic if not impossible to sort out epidemiologically as there no longer remains an unexposed control group.

This is especially important considering these effects are likely magnified by synergistic toxic exposures and other common health risk behaviors. Effects can also be non-linear.

Because this is the first generation to have cradle-to-grave life span exposure to this level of man-made microwave (RF EMR) radiofrequencies, it will be years or decades before the true health consequences are known. Precaution in the roll out of this new technology is strongly indicated.”

There's No Safe Way to Implement 5G

Similarly, in an article⁸ on the Environmental Health Trust's website, Ronald Powell, Ph.D., a retired Harvard scientist of applied physics, notes “there is NO SAFE WAY to implement 5G in our communities; rather, there are only ‘bad ways’ and ‘worse ways,’” and rather than argue about who should have control over its deployment, we should focus on preventing its employment altogether.

Indeed, mounting research^{9,10} suggest the proliferation of 5G for the sake of faster wireless internet could be a public health disaster, so if 5G does end up “replacing cable internet for good,” humanity may be in for a devastating shock in coming decades, if not sooner.

While it may take years to fully ascertain the full effects of 5G, there are early warning signs. People have reported mass die-offs of bees around 5G towers in California,¹¹ for example, and residents in Gateshead in the U.K. started reported insomnia, chronic nosebleeds and stillbirths after

the installation of streetlamps that emit 5G radiation in 2016.¹²

'No Reason to Believe 5G Is Safe,' Scientific American Says

In an October 17, 2019, article,¹³ Scientific American warns “We have no reason to believe 5G is safe,” and that “contrary to what some people say, there could be health risks.” The article, written by Joel M. Moskowitz, Ph.D., director for the Center for Family and Community Health in the School of Public Health at the University of California, Berkeley, notes:¹⁴

“The telecommunications industry and their experts have accused many scientists who have researched the effects of cell phone radiation of ‘fear mongering’ over the advent of wireless technology’s 5G.

Since much of our research is publicly-funded, we believe it is our ethical responsibility to inform the public about what the peer-reviewed scientific literature tells us about the health risks from wireless radiation.”

Moskowitz points out that the FCC has recently announced¹⁵ its intention to reaffirm and maintain current radio frequency radiation (RFR) exposure limits, which were originally adopted in the late 1990s. However, there are significant problems with this.

Current RFR limits are based on studies from the 1980s looking at the behavioral effects of microwave radiation on rats, “and were designed to protect us from short-term heating risks due to RFR exposure,” Moskowitz writes.¹⁶

These limits are already outdated for our current levels of exposure, so they’re surely bound to be completely inadequate for 5G. Since the 1980s, more than 500 studies¹⁷ have identified harmful health or biological effects at RFR intensities far below those needed to produce heating, yet the FCC is ignoring these clearly established facts. As noted by Moskowitz:¹⁸

“The FCC’s RFR exposure limits regulate the intensity of exposure, taking into account the frequency of the carrier waves, but ignore the signaling properties of the RFR. Along with the patterning and duration of exposures, certain characteristics of the signal (e.g., pulsing, polarization) increase the biologic and health impacts of the exposure.

New exposure limits are needed which account for these differential effects. Moreover, these limits should be based on a biological effect, not a change in a laboratory rat’s behavior.”

Read full story here...

Public-Private Partnerships Proposed For 5G Rollout



The concept of Public-Private Partnerships was originally invented by the United Nations to implement Sustainable Development, aka Technocracy. Since 5G is key to total surveillance, it is no surprise that P3s are playing a central role. □ TN Editor

Cities should be deliberate about partnering with businesses and

forming infrastructure strategies if they are to have success with 5G rollout, speakers from early 5G testbeds said Monday at the DC5G conference in Arlington, VA.

The Smart Docklands project from Dublin, Ireland, has brought 5G to a 1.5-square-mile area in the east of the city, and with it, officials have been rolling out small cell infrastructure to help close coverage gaps. Those small cells have been installed on all manner of city infrastructure, including lampposts, trash cans and stoplights. Edward Emmanuel, Smart Docklands' project management and governance lead, said given the historic nature of the city, they have to be "really strategic" with the infrastructure they use. "We can't just drill holes into them and stick things up," he said.

Meanwhile, Salford in Greater Manchester, UK has looked to leverage its mixed-use MediaCityUK development at a 5G innovation hub, where businesses are shown how the technology can help make their operations more efficient through various accelerator programs. Jon Corner, chief digital officer at the City of Salford, said it has been effective as a "mechanism to bring companies in so they can start to discover that their innovations can be enhanced by 5G networks."

In just a few years, both Dublin and Salford have become leading 5G testbeds, but they needed to show their desire to be innovative to find private partners. Emmanuel said Dublin has a reputation for not being an innovative city, perhaps due in part to its long history and aging infrastructure, but after reaching out to business partners and showing their plans, private sector companies were "surprised."

It was a similar story in Salford, which undertook fast development of its Media City project while conversations were ongoing with UK telecoms about partnering on fiber rollout. Those conversations sparked more discussions about how to partner on 5G, Corner said, and private companies were immediately positive once they learned of potential use cases.

"I felt a really strong desire among those private companies to say,

'We're very interested,'" he said.

For U.S. cities, it shows the importance of a coherent strategy around the approval and siting of small cells, something the Federal Communications Commission (FCC) looked to streamline in a ruling last year, which is now the subject of court challenges.

Meanwhile, U.S.-based telecom companies have continued to make big promises about the rollout of mobile 5G and are beginning to bring the technology into several cities.

On a recent earnings call, Verizon chairman and CEO Hans Vestberg said the company is still committed to reaching 30 markets by year's end, while T-Mobile CEO John Legere said on his company's earnings call that with accelerated infrastructure build-out, there are plans to "launch our foundational layer of 5G nationwide this year." AT&T CFO John Stephens also said on an earnings call the company is on track to launch its "nationwide 5G network" next year.

[Read full story here...](#)

Grand Rapids Nullifies FCC And State Compliance On 5G



It is possible for cities to resist Federal overreach, especially when 5G presents serious citizen safety issues. Grand Rapids, Michigan barely scraped by a vote of 3-3, but it was a victory for city sovereignty.

Special Note: One week later, the city council took another vote and overturned their previous vote, having caved to threatened legal pressure from the state and the FCC. Whether lack of backbone or lack of funds to fight back, the result was the same - failure to protect citizens first. □ TN Editor

Despite advice to the contrary, the Grand Rapids City Commission declined to adopt a proposed ordinance that would streamline the installation of “small cell” wireless infrastructure around the city.

In doing so Tuesday, June 4, the city is not expected to be in compliance with recent state and federal legislation by the June 9 deadline. The newly enacted laws, which limit a local government’s ability to regulate the installation of wireless infrastructure, are meant to “encourage 5G development.”

At the center of the issue is the installation of a dense network of small cell wireless utilities on telephone poles, traffic signals, signs and other similar structures in the public right-of-way. The infrastructure is part of

the wireless industry's shift to next-generation technology (5G).

Legislation by the Federal Communications Commission (FCC) in January (Act 365), and the state of Michigan in March, established regulations and fee limits for the installation of the small cell utilities.

The proposed ordinance would have put Grand Rapids in compliance with state law. It would have let the city be "as restrictive as possible under state law," and allow staff to choose which kinds of small cell utilities could be installed to maintain the default design of the right-of-ways.

The ordinance failed Tuesday by a 3-3 vote. Commissioners Jon O'Connor, Senita Lenear and Ruth Kelly were in opposition, while Commissioner Nathaniel Moody was absent and thus didn't vote.

Before Tuesday's vote, the commission heard concerns from a dozen residents before voting. Most of those opposed to the ordinance are worried about the potential health risks associated with more wireless microwave radio-frequency radiation in the city as a result of this technology.

"Please help protect the health, safety, and welfare of the citizens of Grand Rapids by placing a moratorium on small cell tower installations in public right-of-ways until safe levels of non-ionizing wireless radiation are determined by independent research," wrote Jeanine Susan Deal, director of the advocacy group Michigan for Safe Technology.

Commissioner Lenear said those concerns and a lack of knowledge by the commission caused her pause. She asked about the possibility of a moratorium, but was told by an attorney representing the city that such action was prohibited by the state law signed by then-Gov. Rick Snyder.

[Read full story here...](#)

Scientific American: ‘We Have No Reason To Believe 5G Is Safe’



The 5G industry has spent no funds on consumer safety testing, yet it disparages and vilifies legitimate scientists and studies that are issuing strong warnings about its safety. It's time the public took notice! □ TN Editor

The telecommunications industry and their experts have accused many scientists who have researched the effects of cell phone radiation of “fear mongering” over the advent of wireless technology’s 5G. Since much of our research is publicly-funded, we believe it is our ethical responsibility to inform the public about what the peer-reviewed scientific literature tells us about the health risks from wireless radiation.

The chairman of the Federal Communications Commission (FCC)

recently announced through a press release that the commission will soon reaffirm the radio frequency radiation (RFR) exposure limits that the FCC adopted in the late 1990s. These limits are based upon a behavioral change in rats exposed to microwave radiation and were designed to protect us from short-term heating risks due to RFR exposure.

Yet, since the FCC adopted these limits based largely on research from the 1980s, the preponderance of peer-reviewed research, more than 500 studies, have found harmful biologic or health effects from exposure to RFR at intensities too low to cause significant heating.

Citing this large body of research, more than 240 scientists who have published peer-reviewed research on the biologic and health effects of nonionizing electromagnetic fields (EMF) signed the International EMF Scientist Appeal, which calls for stronger exposure limits. The appeal makes the following assertions:

“Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life.”

The scientists who signed this appeal arguably constitute the majority of experts on the effects of nonionizing radiation. They have published more than 2,000 papers and letters on EMF in professional journals.

The FCC’s RFR exposure limits regulate the intensity of exposure, taking into account the frequency of the carrier waves, but ignore the signaling properties of the RFR. Along with the patterning and duration of exposures, certain characteristics of the signal (e.g., pulsing, polarization) increase the biologic and health impacts of the exposure. New exposure limits are needed which account for these differential effects. Moreover, these limits should be based on a biological effect, not

a change in a laboratory rat's behavior.

The World Health Organization's International Agency for Research on Cancer (IARC) classified RFR as "possibly carcinogenic to humans" in 2011. Last year, a \$30 million study conducted by the U.S. National Toxicology Program (NTP) found "clear evidence" that two years of exposure to cell phone RFR increased cancer in male rats and damaged DNA in rats and mice of both sexes. The Ramazzini Institute in Italy replicated the key finding of the NTP using a different carrier frequency and much weaker exposure to cell phone radiation over the life of the rats.

Based upon the research published since 2011, including human and animal studies and mechanistic data, the IARC has recently prioritized RFR to be reviewed again in the next five years. Since many EMF scientists believe we now have sufficient evidence to consider RFR as either a probable or known human carcinogen, the IARC will likely upgrade the carcinogenic potential of RFR in the near future.

Nonetheless, without conducting a formal risk assessment or a systematic review of the research on RFR health effects, the FDA recently reaffirmed the FCC's 1996 exposure limits in a letter to the FCC, stating that the agency had "concluded that no changes to the current standards are warranted at this time," and that "NTP's experimental findings should not be applied to human cell phone usage." The letter stated that "the available scientific evidence to date does not support adverse health effects in humans due to exposures at or under the current limits."

The latest cellular technology, 5G, will employ millimeter waves for the first time in addition to microwaves that have been in use for older cellular technologies, 2G through 4G. Given limited reach, 5G will require cell antennas every 100 to 200 meters, exposing many people to millimeter wave radiation. 5G also employs new technologies (e.g., active antennas capable of beam-forming; phased arrays; massive inputs and outputs, known as MIMO) which pose unique challenges for measuring exposures.

Read full story here...

Qualcomm Salivates Over 5G And Internet Of Things



Qualcomm understands that 5G will provide a gusher real-time data to be collected, manipulated and sold for huge profits. Technocrats lust for and hoard all the data that they can get their hands on. □ TN Editor

Like many municipalities, the city of Carlsbad has deployed connected water meters to reduce costs of sending crews out to read meters manually.

But these smart meters provide something perhaps more valuable than operational savings. They generate digital data on water use.

The Carlsbad Municipal Water District began running analytics software on that data to spot spikes and anomalies in consumption. For a time, a

staffer would call residents to let them know their usage had surged.

The result was 16 million gallons of water saved in just six months, said David Graham, Carlsbad's chief innovation officer, at Qualcomm's Smart Cities Accelerate 2019 conference this week.

"That doesn't exactly drive revenue for the city. We get more revenue the more water people use," said Graham. "But it drives a better customer experience, and ultimately in California we want to reduce water usage across the board."

The benefits and challenges of smart cities technologies were the focus of Qualcomm's Smart Cities event, where more than 550 people, including representatives from 400 companies that make smart cities technologies, attended at the company's Sorrento Mesa campus.

For Qualcomm, smart cities technology is part of its strategy to bring the wireless connectivity not only to smartphones but also to many other things including roads, energy and water grids and smart streetlights.

Faster, more flexible 5G networks, which have begun rolling out globally, have been tailored to eventually connect as many as one million devices per square kilometer — paving the way for a vast expansion of connected sensors, cameras and infrastructure.

For cities, connecting and analyzing data from connected street lights, water meters, energy grids and environmental sensors has the potential to improve safety, ease traffic jams and preserve scarce resources.

"At an intersection, which is really one of the most dangerous parts of driving, you can actually manage it with a combination of cars communicating with cars, cars communicating with the infrastructure and the infrastructure, with video, having the ability to understand exactly what is going on," said Jim Thompson, chief technology officer of Qualcomm.

[Read full story here...](#)

Smackdown: Swiss Revolt Against 5G Over Health Fears



Ponder the phrase, 'nationwide revolt'. Switzerland is the latest nation to give 5G providers a major setback, following other European nations. Most importantly, Technocracy is taking a huge hit. □ TN Editor

Switzerland was among the first countries to begin deploying 5G, but health fears over radiation from the antennas that carry the next-generation mobile technology have sparked a nationwide revolt.

Demonstrators against the technology are due to fill the streets of Bern later this month, but already a number of cantons have been pressured to put planned constructions of 5G-compatible antennae on ice.

The technology has been swept up in the deepening trade war between China and the United States, which has tried to rein in Chinese giant Huawei — the world's leader in superfast 5G equipment — over fears it will allow Beijing to spy on communications from countries that use its

products and services.

But far from the clash of the titans, a growing number of Swiss are voicing alarm at possible health effects from exposure to the electromagnetic rays radiating from the new antennae, and are threatening to put the issue to a referendum in the country famous for its direct democratic system.

It wasn't supposed to be this way.

In February, Switzerland took a big step towards deployment when it attributed 5G frequencies to three major operators, Swisscom, Sunrise and Salt, allowing the country to rake in revenues of nearly 380 million Swiss francs (\$384 million, 350 million euros).

High on their success, the operators raced to trumpet on television advertisements and billboards that the cutting-edge technology would be available this year in cities, in the countryside and even in mountainous regions.

By early July, 334 antennae stations for 5G were operational across the country, authorities told AFP.

But the rollout has run into some serious hurdles.

Several cantons including Geneva have buckled to pressure from online petitioners demanding a halt to construction of the 5G infrastructure.

But while no new antennae are being built in parts of the country, the operators are still converting existing 4G antennae for 5G use — something they can do without authorisation.

National carrier Swisscom thus says it expects 90 percent of the population to have 5G access by the end of the year.

Opponents meanwhile warn that 5G poses unprecedented health and environmental risks compared to previous generations of mobile technology, and are urging authorities to place a full-fledged moratorium on the rollout.

They will organise a large protest on September 21 in front of the government buildings in Bern, and are also working towards putting the issue to a popular vote.

“I think we have most citizens on our side,” Coco Tache-Berther, of the organisation Fequencia, told AFP, saying Switzerland’s rapid roll-out of 5G was “ultra-shocking”.

Olivier Pahud, who regularly demonstrates against 5G in front of the UN in Geneva, agreed, insisting the technology will have “impacts on health, on the environment, on people’s capacity to think.”

And for people like him, who suffer from “electromagnetic hypersensitivity”, the new technology will be devastating, he said.

Read full story here...

Technocracy: Fierce 5G Battleline Emerges In The Netherlands



As a result of recent events relating to the global 5G rollout, Patrick Wood has been invited to address a symposium (via video) in The Netherlands on 5G, on September 15, 2019.

In July 2019, it was announced in The Netherlands that 5G antennas would be erected on every street corner. By September, citizens took to the streets to block implementation. Many concerns are over potential new health risks due to 5G radiation that is actually absorbed into the skin. Lower frequency radiation, like that found in 4G and 3G, pass through the body.

In the United States, major 5G vendors testified before Congress that no money has been spent on human studies to demonstrate safety of 5G as anticipated. Moreover, efforts to conduct independent studies have been strongly resisted and/or suppressed.

It is increasingly obvious to citizens worldwide that the bum's rush to implement 5G has other motives beyond just enhancing cell phone performance. The Internet of Things and real-time data collection are the real targets for this new technology, and the potential profits that will be generated from it are staggering. Thus, profit and greed trump consumer safety, privacy and personal sovereignty.

The Internet of Things has previously existed more as a concept than a

reality. The *only* thing that could make IoT a reality is real-time (instantaneous) data communication that 5G offers.

People around the world are rising up to overpower the 5G rollout, even as America largely sleeps.

The Netherlands is a good example of the conflicts to come.

In the following video produced by James Corbett of The Corbett Report, note his acute understanding of Technocracy and its goals of Scientific Dictatorship. I strongly recommend that every reader listen to this report!

Hundreds protest in The Hague against 5G mobile networks

September 9, 2019

Several hundred people have taken part in a demonstration in The Hague against the imminent arrival of 5G mobile phone networks in the Netherlands.

The demonstrators marched from Centraal Station to the Binnenhof and back carrying banners with slogans including '5G = killing us softly' and 'Wij zijn geen proefkonijnen' (We're not guinea pigs).

The protestors have called for the government to reduce the level of permitted radiation from the new generation mobile phones, improve privacy regulations and assess the effect on the climate.

There have also been concerns that the Chinese government could use the 5G network for espionage, after telecoms provider KPN signed agreements with Huawei to modernise the radio and antenna network. KPN has said it will use a 'western vendor' to construct the new mobile core network.

The government has said there is no evidence that 5G phones are damaging to people's health. The upgrading of the existing 4G networks is due to begin in 2020.

Read full story here...

5G is coming to the Netherlands: A mast on every street corner

July 10, 2019

According to a legislative proposal from the Ministry of Economic Affairs and Climate, the government is making way for the introduction of 5G transmissions masts and antennas. Municipalities will be obliged to cooperate with the installation of antennas in / on public buildings, lampposts and traffic lights.

Thousands of antennas needed

In the coming years, 5G-internet will be introduced in the Netherlands. However, in order to guarantee that this super speedy internet is available in busy areas, a lot more transmission masts and antennas are needed. The antennas, a.k.a. small cells, will be popping up all over the streets. They are even already being incorporated into street furnishings, like bus stops.

Currently, there are about 46.000 mobile antennas in the Netherlands, but it is likely that another 10.000 will be added to this number in the run-up to 2022- when 5G is expected to be rolled out on a large scale. The antennas are necessary, according to the government, in order to “offer trendsetting services to users”, like autonomous cars.

Are there health risks?

This spring, political party GroenLinks sounded the alarm on possible health risks which could be caused by the radiation from the new 5G antennas. GroenLinks wants the government to carry out extra research into these risks.

However, according to the State Secretary of Economic Affairs and the Minister of Medical Care that is not necessary, as several studies show

no indication of health hazards. The agency Telekom, will, nonetheless, continue to monitor the radiation levels in public areas. This autumn, the government will publish a list of requirements for companies wanting to provide 5G services.

[Read full story here...](#)

5G Seeks To Disrupt Everything, Including Your Life



Is 5G a solution looking for a problem or a problem looking for a solution? Despite the overwhelming hype or urgency to implement, very few outside of global corporations are buying the hype. 5G's future is still in doubt. □ TN Editor

As Saxo Bank's Peter Garnry recaps yesterday's Apple event, the

company introduced its iPhone 11 which now comes in three different versions with cheapest version selling for \$699 which a price cut aimed to lure smartphone buyers back into Apple's realm (at the expense of a drop in Apple's ASP). The stock market reacted positively to the news, but criticism has surfaced that Apple is falling behind **as the new iPhone 11 is not coming with a 5G integration which makes almost impossible for Apple to have growth in China where local smartphone makers such as Huawei is introducing smartphone with 5G integration.** Beginning in the second half of 2020 this will be a constraint for Apple.

Why does 5G matter?

*To answer that question, we have excerpted from a recent Deutsche Bank report explaining "**how 5G will change your life.**"*

Amidst hype and high expectation, the 5G roll-out has begun. It recently launched in Korea, while the US, UK and others have commenced trial versions and China has said it will soon grant commercial licenses for its network. To take advantage, companies such as Samsung and LG have launched 5G smartphones. In total, \$160bn is being invested annually in the construction of 5G networks according to GSMA, the mobile network operators' association. It expects 5G to contribute \$2.2tn to the global economy in the coming 15 years, just a little less than the size of the UK economy.

Yet, for all the fanfare, many in the industry are quietly nervous. Among other things, one of the biggest concerns is that there is no 'killer application' ready and waiting to be unleashed that requires the 5G network. That trepidation stands in direct contrast to the 4G and 3G roll-outs. The former allowed good-quality streaming video and the latter photo sharing and other types of multimedia. Both were a boon for hardware, software, and network providers.

This is backed up by our dbDig primary research¹ which shows that in the US, **only ten per cent of customers are prepared to pay \$6 or more for 5G services and one-quarter of customers say they are not prepared to pay any extra at all.** Yet when we look at China a

different picture emerges. Indeed, two-thirds of Chinese customers are willing to pay for 5G if it means quicker uploads to social media or the ability to play mobile games with very low load time. That is double the proportion of US customers who are willing to pay for the same services. It seems part of the reason is that the Chinese are far more likely to report issues with signal strength when they are in rural areas. Given smart phones have become a crucial engagement tool in rural Asian areas (see our piece titled, 'The emerging market technology skip') the willingness of the Chinese to upgrade is not surprising. **However, the future for 5G smartphone service in developed markets seems more uncertain.**

On top of the concerns about user uptake are the voices of health professionals, environmentalists, and politicians who worry about radiation emissions. Take Brussels, for example, a city with very strict radiation regulations. There, a pilot 5G project was halted on health grounds with the environment minister proclaiming, "The people of Brussels are not guinea pigs." **In Switzerland, authorities have commenced a 5G radiation monitoring programme.** And all this comes before considering the stern political rhetoric that has accompanied the choice of Chinese suppliers for 5G infrastructure (see our piece titled, 'The politics of 5G').

So given that many smartphone users are wondering whether they should bother upgrading to 5G, the network providers cannot be blamed for wondering just how aggressively they should spend the money to roll out 5G networks. Consider that 5G works on a much shorter wavelength than 4G. Because of that, it cannot travel as far as the longer wavelengths of earlier networks. It also has more trouble penetrating the thick walls of buildings. To deal with this, network providers will need to install perhaps five times more base stations than they have with 4G, and some of those stations may be more costly to build. The extra cost, then, is significant and the initial roll-outs will almost certainly be confined to densely-populated urban areas.

So, is it a situation of "build it and they will come"? Will the roll out of 5G spur a frenzied development of 5G-specific applications in a similar

way to how 4G catalysed a plethora of video-related products? Or will network providers need to see evidence of a demand for 5G and a willingness to pay before they can justify the expense of rolling out 5G beyond city centres? While we wait for the 'killer app' to be developed, the answer is it will probably be a bit of both until a virtuous cycle is established.

The thing is that unlike the move to 3G and 4G, **some of the most important uses of the 5G network are unlikely to take place on a smartphone, at least for now.** Instead, the initial uptake in 5G will likely be driven by the manufacturing industry and public utilities, not individual consumers. Some countries have made significant plans for this. Germany, for example, has reserved a 100 megahertz band between 3.7 and 3.8 gigahertz to be used exclusively by industrial companies for their local networks. German company Siemens is one of the companies at the forefront of 5G industrial applications (see our piece titled, 'Siemens case study').

Some call it the Industrial Internet of Things, others Industry 4.0. Either way, the story is the same. The IIoT is a network of intelligent industrial devices, that is, machines that have in-built sensors that collect data and communicate with each other. This allows them to adjust how they perform a task to what is happening elsewhere in the factory, or inform a human of a certain need to make the process more efficient. The idea is not new, but so far, 'smart factories' have been extremely limited. One key problem is the latency of existing 4G networks. Although it may be small, just a second's delay for a precision manufacturing job can result in serious damage to the product. The 5G network with latency at the lower end of the millisecond range will go a long way to fixing that. For example, a robot arm will be able to stop itself immediately if a camera identifies a foreign object on the conveyor belt.

Read full story here...

Digital Slavery: 5G, Internet of Things and Artificial Intelligence



The Technocrat's lust for 5G and Internet of Things is so strong that they are perfectly willing to ignore all human concerns, protests and especially health concerns. However, the issue of Scientific Dictatorship, aka Technocracy, is much greater. □ TN Editor

Technocracy was originally defined as "the science of social engineering, the scientific operation of the entire social mechanism to produce and distribute goods and services to the entire population..." (*The Technocrat Magazine*, 1938)

Planted as a seed in 1932, Technocracy has grown into a tree so big that it literally covers the earth today: that is, through the rebranding and repurposing by the United Nations as Sustainable Development, Agenda 21, 2030 Agenda, New Urban Agenda, etc.

Furthermore, it is like a hydra-headed monster with many tentacles and expressions, but we must never lose sight of the common purpose of all:

kill the world's economic system of Capitalism and Free Enterprise and replace it with the vacuous economic system, Sustainable Development.

Since Technocracy is a resource-based economic system, people like you and I are considered as mere resources on the same level as livestock on a ranch. If people are just animals who selfishly consume resources, then they must be monitored, managed and limited in their consumption.

To this end, Technocracy originally called for *total surveillance* of all people, all consumption, all production and all energy consumed in every activity. The outcome was to *control* all consumption and production. This level of technology didn't exist in 1932, but it does today!

When the surveillance network in America (and the world) is finally functional, the command and control system will become reality, resulting in a Scientific Dictatorship that exceeds even Orwell's *Nineteen Eighty Four* or Huxley's *Brave New World*.

What is the last cog in the gearbox necessary to bring this about? **In short, 5G!**

Why? When you consider the massive amount of data that is waiting to be collected from the widespread Internet of Things, facial recognition cameras, Smart City sensors, self-driving vehicles, etc., they all lack one element: ***real-time connectivity***. **5G solves this!**

If you listen to any 2019 speech given by the CEO of Verizon, T-Mobile or AT&T, you will hear them rave over how 5G's real-time connectivity is going to light up the Internet of Things like a Macy's Christmas tree. You will hear the words "transformative" and "disruptive" over and over.

What's the big deal with "real-time" connectivity? ***Artificial Intelligence*** (AI).

It is said that AI without data is as inert and useless as a pile of rocks. AI needs data to "learn" and then to take action. Up until now, Technocrats who create AI programs have had to use historical data for learning and that's about all; forever learning but never doing.

The "holy grail" of Technocrats is to use their AI on REAL-TIME DATA.

Real-time analysis can then close the **control loop by feeding back real-time adjustments**. This has never been done in the history of the world, but thanks to 5G, Technocrats everywhere are salivating to dive into the control business; that is, the “scientific operation of the entire social mechanism.”

Let me give you an example. Say you are an engineer and you designed and built a state-of-the-art fire truck that will revolutionize firefighting. There it sits on display for everyone to see. You start the engine and everyone is duly impressed, but still, it just sits there. Without water (e.g., the data) to pump through the numerous hoses, everyone, including yourself, can only imagine of what it would be like. In fact, your engineering dream is quite useless until you take it to an actual, real-time fire and blast away with the water cannons to douse the flames. **Then** you will know if you were successful or not.

Technocrats understand this. They know that 5G will fully enable their AI inventions and dreams. Unfortunately for us, they also know that it will **enable the feedback loop to control the objects of surveillance**, namely, US!

The Technocrat’s lust for 5G and Internet of Things is so strong that they are perfectly willing to ignore all human concerns, protests and especially health concerns.

Perhaps now you can understand how and why they are living out the old nautical phrase, “***Damn the torpedoes, full speed ahead!***” Risks don’t matter. Danger doesn’t matter. Collateral damage doesn’t matter.

To the extent that we citizens can nullify the rollout and implementation of 5G, we will scuttle the Technocrat’s ability to establish a Scientific Dictatorship. ***Truly, it is we who should be mounting the counter-attack with our own cry of “Damn the torpedoes, full speed ahead!”***

Battle And Pushback Over 5G Rollout Is Heating Up



Citizens and cities are pushing back against FCC bullying and health concerns, even as 5G providers are calling it all ‘conspiracy theories.’ The providers are increasingly embattled by city councils. □ TN Editor Jack Tibbetts, a member of the Santa Rosa, Calif., city council, knew he had a problem. It was early 2018, and he’d started getting calls from constituents at opposite ends of the political spectrum. The common thread: cellular antennas going up next to their homes, causing concerns over property values and health.

The weight of evidence suggests that if radio-frequency emissions have any effect on humans at all, it is, according to the World Health Organization, about on par with other “possibly carcinogenic” substances, including coffee and pickles. The Federal Communications Commission, citing input from the Food and Drug Administration, recently declared that existing limits on the amount of radio-frequency energy these antennas put out make them safe. A senior FCC official said there is nothing unique to 5G networks that poses additional health risks.

None of this has stopped the social-media-fueled conspiracy whirligig that allows health scares to thrive on the internet.

Cities and towns throughout Northern California are issuing ordinances that would exclude new 5G cell sites from residential areas, citing supposed health concerns. Residents of Portland, Ore., and Whitefish, Mont., have also cited these beliefs while lobbying for restrictions. Legislators in four states including New Hampshire have proposed bills that would mandate further study of health effects or else urge Congress to do so, and Congressman Thomas Suozzi (D., N.Y.) wrote to the FCC echoing these concerns.

For Mr. Tibbetts, it didn't matter whether or not these new "small cell" antennas—which are used for 4G networks but can be upgraded for 5G—going up in Santa Rosa were actually dangerous. Some were attached to utility poles a mere 20 feet from people's bedroom windows, and residents complained Verizon had put them up without notifying them. What mattered was that his constituents didn't want these ungainly chunks of public infrastructure anywhere near them.

"I don't like the idea of someone being in their home and it's supposed to be a place of security, and they are having that feeling of insecurity," Mr. Tibbetts says. "I won't be surprised if in 10 years there's no evidence of cancer from these towers, but my job is not to protect Verizon, it's to protect people in their houses."

Whatever the basis for residents' objections to new cell towers, Mr. Tibbetts—as well as countless mayors, governors and council members across the country—have little or no power under current rules to act on their constituents' wishes. Nor do they have the leeway they once did to set pricing for cell sites, a lucrative source of funding for civic initiatives. Those who do take action are creating ordinances that put their cities at risk of being sued by the telecoms, as happened this month in Rochester, N.Y.

Billed as the key to the future—of telecommunications, of global competition, of innovation and even of municipal infrastructure—5G has instead become a bone of contention. In addition to upgrading existing

towers, it will require an estimated half-million new towers and small-cell sites on utility poles, lampposts and buildings. Experts also anticipate a long rollout period, potentially of a decade or more.

Most cities want 5G, but they don't want to be told how, when and at what cost. Rules the FCC has already passed, meant to expedite 5G's rollout, might well be creating acrimony that serves to do the exact opposite.

[Read full story here...](#)