

The New York Times

Your 5G Phone Won't Hurt You. But Russia Wants You to Think Otherwise.

RT America, a network known for sowing disinformation, has a new alarm: the coming '5G Apocalypse.'

By **William J. Broad**

May 12, 2019

The cellphones known as 5G, or fifth generation, represent the vanguard of a wireless era rich in interconnected cars, factories and cities. Whichever nation dominates the new technology will gain a competitive edge for much of this century, according to many analysts. But a television network a few blocks from the White House has been stirring concerns about a hidden flaw.

"Just a small one," a TV reporter told her viewers recently. "It might kill you."

The Russian network RT America aired the segment, titled "A Dangerous 'Experiment on Humanity,'" in covering what its guest experts call 5G's dire health threats. U.S. intelligence agencies identified the network as a principal meddler in the 2016 presidential election. Now, it is linking 5G signals to brain cancer, infertility, autism, heart tumors and Alzheimer's disease — claims that lack scientific support.

Yet even as RT America, the cat's paw of Russia's president, Vladimir Putin, has been doing its best to stoke the fears of American viewers, Mr. Putin, on Feb. 20, ordered the launch of Russian 5G networks in a tone evoking optimism rather than doom.

"We need to look forward," he said, according to Tass, the Russian news agency. "The challenge for the upcoming years is to organize universal access to high-speed internet, to start operation of the fifth-generation communication systems."

Analysts see RT's attack on 5G as geopolitically bold: It targets a new world of interconnected, futuristic technologies that would reach into consumers' homes, aid national security and spark innovative industries. Already, medical firms are linking up devices wirelessly to create new kinds of health treatments.

“It’s economic warfare,” Ryan Fox, chief operating officer of New Knowledge, a technology firm that tracks disinformation, said in an interview. “Russia doesn’t have a good 5G play, so it tries to undermine and discredit ours.”

5G is also a growing point of friction between Washington and Beijing, with each side lining up allies in what has become a major technology race. Moscow and Beijing are seen as possibly forming a 5G political bloc.

The Kremlin “would really enjoy getting democratic governments tied up in fights over 5G’s environmental and health hazards,” said Molly McKew, head of Fianna Strategies, a consulting firm in Washington, D.C., that seeks to counter Russian disinformation.

RT’s assaults on 5G technology are rising in number and stridency as the American wireless industry begins to erect 5G systems. In March, Verizon said its service will soon reach 30 cities.

RT America aired its first program assailing 5G’s health impacts last May, its only one in 2018. Already this year, it has run seven. The most recent, on April 14, reported that children exposed to signals from 5G cellphone towers would suffer cancer, nosebleeds and learning disabilities.

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The network distributes its programming by cable, satellite and online streaming. It also posts individual stories on Facebook and YouTube. A declassified U.S. intelligence report, released early in 2017, said that RT videos on YouTube have averaged 1 million views per day, “the highest among news outlets.”

Hundreds of blogs and websites appear to be picking up the network’s 5G alarms, seldom if ever noting the Russian origins. Analysts call it a treacherous fog.

Anna Belkina, RT’s head of communications in Moscow, defended the network’s coverage of 5G. “Unlike many other media, we show the breadth of debate,” she said in an email exchange.

Asked if Mr. Putin’s promotion of 5G technology in Russia conflicted with the health alarms raised by RT America, she said the U.S. network focused on local 5G issues, not “the roll-out in Russia.”

“Our American audience expects us to bring American concerns to the front, first and foremost,” Ms. Belkina said.



RT television vehicles outside St. Basil's Cathedral and the Kremlin in Moscow. The network has been called "the Kremlin's principal international propaganda outlet." Mladen Antonov/Agence France-Presse — Getty Images

The 5G Playbook

The Office of the Director of National Intelligence, in the 2017 report, described the network as “the Kremlin’s principal international propaganda outlet.” The report noted that RT’s most popular video on Hillary Clinton during the 2016 election campaign stated that 100 percent of the Clintons’ charity “Went to ... Themselves.” The video was viewed more than 9 million times.

Later that year, the national security division of the Justice Department forced RT America, formerly Russia Today, to register as a foreign agent.

Moscow’s goal, experts say, is to destabilize the West by undermining trust in democratic leaders, institutions and political life. To that end, the RT network amplifies voices of dissent, to sow discord and widen social divides. It gives the marginal a megaphone and

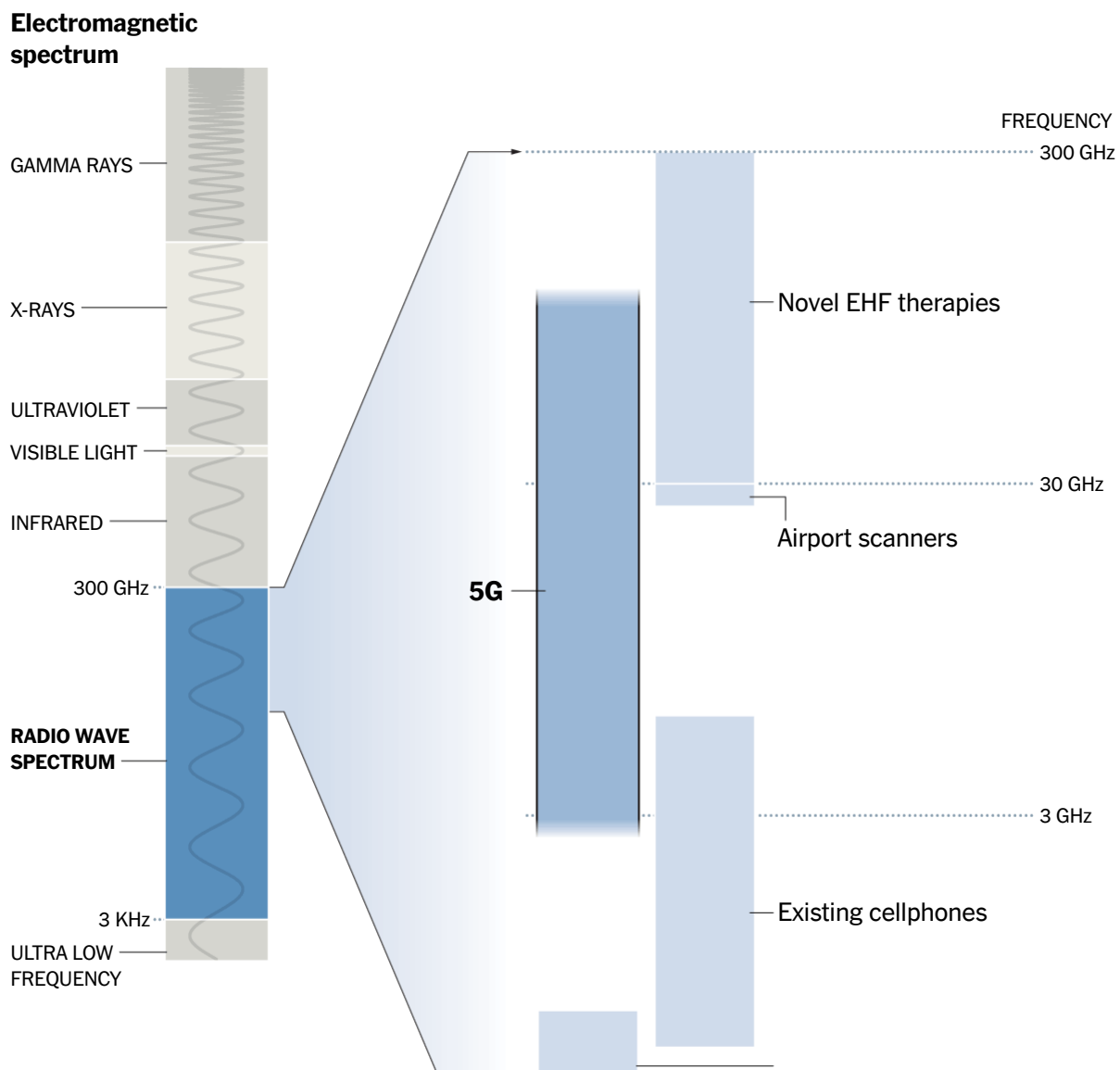
traffics in false equivalence. Earlier campaigns took aim at fracking, vaccination and genetically modified organisms. One show called designer tomatoes “good-looking poison.”

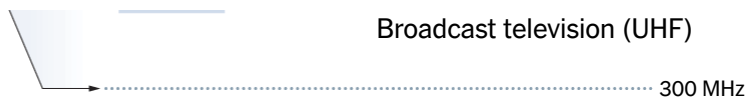
The network is now applying its playbook against 5G by selectively reporting the most sensational claims, and by giving a few marginal opponents of wireless technology a conspicuous new forum.

All cellphones use radio waves. RT America tends to refer to the signals as “radiations,” seemingly associating them with the very strong rays at the far end of the electromagnetic spectrum, such as X-rays and ultraviolet rays, which in high doses can damage DNA and cause cancer.

5G's Place in the Spectrum

The newest generation of cellphones, 5G, will operate near the highest frequencies of the radio wave spectrum. Its range overlaps with other devices — including a novel class of health therapies used in Russia and China.





Sources: National Aeronautics and Space Administration, National Academies of Sciences, National Institute of Environmental Health Sciences, Congressional Research Service, Institute of Electrical and Electronics Engineers • By The New York Times

But the radio waves used in cellphone communication lie at the opposite end of the spectrum, between radio broadcasting frequencies and the rainbow colors of visible light.

The frequencies employed in 5G are higher than those of past cellphones, allowing more information to be relayed more rapidly. Many other devices are expected to follow, including robots, drones and cars that send traffic information to one another.

Wireless high-speed communication could transform the news industry, sports, shopping, entertainment, transportation, health care, city management and many levels of government. In January, The Times announced a joint venture with Verizon to build a 5G journalism lab.

Over the years, plenty of careful science has scrutinized wireless technology for potential health risks. Virtually all the data contradict the dire alarms, according to public officials, including those at the World Health Organization.

Opponents of 5G claim the technology's high frequencies will make the new phones and cell towers extraordinarily harmful. "The higher the frequency, the more dangerous it is to living organisms," a RT reporter told viewers recently.

The truth is exactly the opposite, scientists say. The higher the radio frequency, the less it penetrates human skin, lowering exposure of the body's internal organs, including the brain.

"5G emissions, if anything, should be safer than previous generations," said Dr. Marvin C. Ziskin, a medical doctor and emeritus professor of radiology and medical physics at the Temple University School of Medicine.

Health concerns were raised last year when a large federal study showed that 2G signals could produce brain cancer in male rats. But officials discounted a direct link to humans, saying people received smaller doses.

Nonetheless, RT has taken an active role in stirring up apprehension, casting the debut of 5G in biblical terms. The caption superimposed on a January show read, "5G Apocalypse." The anchor reported that doctors, scientists and environmental groups were now calling for its ban.

RT America taps the ranks of existing anti-cellular activists to wage its 5G campaign. Some have railed for decades against cellphones, power lines and other everyday sources of electromagnetic waves. Much of their work appears not in reputable science journals but little-known reports, publications and self-published tracts, at times with copious notes of dubious significance. They tend to cite each other's research.

It's unclear how many RT experts realize they are aiding a Russian network or that it acts as Mr. Putin's mouthpiece. At times, RT simply mines existing videotape and print materials, editing them to reflect its perspective. And the intelligence report noted that some network staffers fail to disclose their RT affiliation when conducting interviews.

Even so, private analysts see the 5G attacks as reaching perhaps millions of online viewers — terrifying some, infuriating others.

“RT successfully feeds the conspiracy-oriented ecosystem,” said John Kelly, chief executive of Graphika, a network analytics firm. “This effort is having a real impact. It's bearing fruit.”



Screengrabs taken from recent RT America episodes, clips of which are available on YouTube.

RT, via YouTube

A “Firehose of Falsehood”

RT America began its assault last year with a news show captioned “Wireless Cancer.” The featured guest was Dr. David O. Carpenter, a prominent 5G critic.

Dr. Carpenter, 82, received his medical degree from Harvard in 1964 and has published hundreds of scientific papers. For decades, he has warned of cancer risks for people living near high-voltage power lines, although federal studies have failed to find credible evidence that would support his claims.

“The rollout of 5G is very frightening,” Dr. Carpenter told RT America. “Nobody is going to be able to escape the radiation.”

Dr. Carpenter’s scariest alarms have been “widely dismissed by scientific bodies the world over,” according to David Robert Grimes, a cancer researcher at the University of Oxford, and his colleague, Dorothy V. M. Bishop, also of Oxford. They challenged Dr. Carpenter in a journal article that ran months before the RT program aired, calling his main claims “scientifically discredited.”

In an interview, Dr. Carpenter defended his work as having “served a major purpose” by revealing a global health threat. He said he was unaware that he had been featured on RT America. “I speak my mind to whomever I talk with,” he said.

RT America’s attacks on 5G have multiplied this year. On Jan. 14, the network aired “A Dangerous ‘Experiment on Humanity,’” which again featured Dr. Carpenter. RT followed a day later with “How to Survive Dangers of 5G.”

On Feb. 7, a segment claimed that “5G Tech is ‘Crime under International Law.’” Its featured expert was Arthur Firstenberg, who once charged that a neighbor’s wireless gear had hurt his health. He sued for \$1.43 million in damages but lost after pressing his claim for five years.



President Vladimir V. Putin visits RT's studios in Moscow with editor-in-chief Margarita Simonyan in 2013.
Yuri Kochetkov/Agence France-Presse — Getty Images

The drumbeat continued. “‘Totally Insane’: Telecomm Industry Ignores 5G Dangers,” was the title of a segment that aired March 6.

A program on March 14 was aimed squarely at parents: “Could 5G Put More Kids at Risk for Cancer?” The RT reporter told of a California elementary school that recently churned with fear of radiation from a nearby cellphone tower, and how angry parents kept home 200 students.

Even as RT America has worked hard to damage 5G, the scientific establishment in Russia has embraced a contrary and questionable position: that the high frequencies of 5G communications are actually good for human health. It recommends their use for healing wounds, boosting the immune system and treating cancer. Millions of Russian patients are said to have undergone such high-frequency therapies.

Beauty clinics in Moscow use these high frequencies for skin regeneration, according to a scientific study. One company says the waves can remove wrinkles and fight hair loss.

A Rand study once called RT America’s approach a “Firehose of Falsehood.” For its part, Moscow has repeatedly denied allegations of meddling in the 2016 presidential election and has strongly defended RT’s news coverage as socially constructive.

Likewise, RT America strongly defended its position on the potential health risks of 5G technology.

“Nothing I’ve seen says the book is closed,” Rick Sanchez, an RT anchor on many of the 5G episodes, said in an interview. “I think there’s lots of unanswered questions. Before we commit to something on this scale, shouldn’t we consider if people could possibly be hurt?”

Mr. Fox, the operations chief of New Knowledge, the technology firm, said the network’s aggressive spin on 5G suggests Moscow is less interested in serving the public than dulling Washington’s edge in the global race for the digital future.

“It’s information warfare,” he said.

Additional reporting by Sophia Kishkovsky in Moscow.

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