

**Литературная газета / Literaturnaya gazeta**

**Article: В плену невидимой смерти**

Translated into English via Google and Reverso Context:

**Trapped into an invisible death**

*The benefits of civilization, such as a mobile phone, can simultaneously be a source of misfortune*

<https://lgz.ru/article/-40-6755-07-09-2020/v-plenu-nevidimoy-smerti/>

LG Special Projects / Scientific Environment / National Health

[Владимир Сухомлинов](#) / Vladimir Sukhomlinov

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**An interview with [Yuri B. Zubarev](#)**

**Vladimir Sukhomlinov: The world is more and more technologically advanced, what seemed fantastic yesterday is already reality. Much pleases, because our capabilities in production, in everyday life, on vacation are increasing, more comfort. But does each of us always think about the consequences of using certain new devices, apparatus, equipment, supplies - not only ethical consequences (for example, gadgets interfere with live communication), but also those related to health? What's happening? What dangers lie in wait?**

**Yuri Borisovich, in July we ("LG", 2020, No. 29) published [a conversation with the prominent radiobiologist Oleg Grigoriev](#) on the topic of 5G networks. In addition to a qualified explanation of the situation, the scientist made a number of conclusions. For example: "Russia, in my opinion, is still following the worst of the scenarios, since it does not restrain, in fact does not regulate the use of cellular communications." He mentioned your name as one of the most respected experts in the world in this field. My first question is: why is this happening and who imposed the "worst case scenario"?**



*Yuri B. Zubarev*

**Yuri B. Zubarev:** It's hard to say that it is imposed. In general, this is a situation that is largely uncontrolled and left on its own. Tell me, who allowed to install Wi-Fi in every carriage of the Moscow metro?

## **2. Probably the authorities, maybe not even realizing what this entails.**

*Yuri B. Zubarev:* The situation most likely looks like this: someone who advocated this idea came to the right office with a letter containing a request to allow the installation of a Wi-Fi network in the metro for the convenience of our dear passengers. At the same time, neither the one who brought the letter nor the one who took it into consideration and made a decision. What's the result? 4G on all Moscow metro lines today. Wonderful? Many believe that this is the case. And, of course, very convenient. You can call from underground and read the news directly in the metro carriage. Top class!

When thinking about it: it is completely different! I called from the entrance to the subway or before stepping on the escalator and drove off, completely forgetting about my smartphone. Why? Everything will become clearer if you imagine that you have to go, say, from "[Tushinskaya](#)" to "[Vykhino](#)", about forty minutes. A person will actually spend almost an hour under radiation. Either the neighbor's WhatsApp is turned on, or someone is talking on a smartphone, or someone is playing games. Nearby are children, pregnant women, old people who do not use such devices. But everyone gets it. A person will pick up for a trip—and many travel every day—a considerable, in general, dose.

Is it possible in another way? It *can* be. Switzerland recently raised the issue of changing legislative documents in this area, and a federal referendum is being prepared. A new law will surely appear. After its adoption, it is supposed, for example, to bring the electromagnetic field in residential apartments to ... zero. What for? And the fact is that now the electromagnetic field permeates the homes of most of us all 24 hours. A person wakes up, eats breakfast, rests after work or studies in this very field, is under radiation and picks up doses that can lead to various diseases, especially in children. And this is happening in all developed countries.

## **3. We are also among them ...**

**Yuri B. Zubarev:** Recently I asked to measure the electromagnetic field with professional equipment outside my window, which overlooks [Leningradsky Prospekt](#). And I have the seventh floor, no [elevation](#). It turned out that outside the window ten microwatts per square centimeter was measured. What this means? This is the level approved back in 1984, which is the maximum possible for all emitting devices that do not pose a health hazard. This includes television and radio broadcasting systems, radar, mobile communications ... All in total should not exceed ten. In my apartment, I have eight - and this is behind two double-glazed windows. So imagine what the Swiss are aiming at. To zero. An excellent goal! This is in the name of people, their health and lives.

If we talk about adults, then a dozen, yes, this is more or less acceptable. If you take a child, this is too much. I have calculated that a child or teenager who goes to school, as well as being at home, on a walk, in transport, receives about 198 microwatts of radiation per day per square centimeter. This means that about 0.24 watts is pumped into a growing person, into his brain, every day. Even if he himself does not use a mobile phone (for example, a child is two years old), this can still lead to the development of cancer.

#### **4. What to do? Radiobiologist Grigoriev told me, in particular, that the new type of clothing helps to weaken the effects of radiation.**

**Yuri B. Zubarev:** The building of each school should be treated with a certain paint that will reflect electromagnetic energy, there should be special reflective transparent films on the glass, the walls in classrooms should also be covered with a special paint that absorbs electromagnetic energy. The child needs to wear a jacket, trousers, which have two layers, and the lower one should be an obstacle to the penetration of radiation. You can achieve a high degree of security. The Japanese, by the way, already produce such clothes, their kids wear them.

#### **5. Let's go back to Switzerland, which, as I understand it, is a good example.**

**Yuri B. Zubarev:** Without going into details, we can state that the adoption of new laws in Switzerland will lead to the fact that the mobile phone will only work there in open space. How about us? In 2018, 170 thousand subscribers in Moscow and the Moscow region refused wired phones, a year later - already 190 thousand. Smartphones are blowing everything away.

#### **6. The good old high quality class phone goes away. To return it, it is necessary to change the psychology of people, all the explanatory work with the population, the entire communications industry. That is, to change the state policy in this area. Make changes to national development programs. And, for example, on TV, on the Internet, advertising of networked yellow-black companies can be supplemented with social "anti-advertising" - it can be done with good humor. Is not it?**

**Yuri B. Zubarev:** I am sure that the future belongs to wired telephony, if, of course, humanity wants to survive. And other steps are possible. For example, in France, the

government is forcing companies to make phones with lower radiation levels. This entails a decrease in its level from the base stations. The whole atmosphere becomes safer. If a 5G network is introduced in Russia under existing conditions - and our base stations are located 500 meters from each other with a certain level of radiation - then the new range will lead to the fact that a person will constantly be under even more intense radiation. And then one should not be surprised that every year 300 thousand people of the working population die in our country due to cancer. This is largely a consequence of such exposure.



I want to speak again about children. Think about a two year old child. It is especially vulnerable to radiation, babies are especially at risk of tumors, not only [benign](#) tumors.

**7. But this does not seem to exist. A couple of days after the conversation with Grigoriev was published in LG, it was reported that the head of the [Ministry of Industry and Trade of the Russian Federation, Denis Manturov](#), announced plans to develop 6G networks, although he called the introduction of fifth generation networks a top priority. It was also reported that at the end of July, [Mobile TeleSystems \(MTS\)](#) became the first company to receive a license from us to provide 5G services. They noted that large enterprises and businesses will become the first users of the new network. It sounds like saying: the dog barks - the caravan moves on. Any fears are side effects, the main thing is to make money, nothing personal. Is that possible?**

**Yuri B. Zubarev:** Absolutely so. In my book "[Cell Phone and Health](#)" (5th ed., Revised. - M.: Publishing House "Biblioglobus", 2020. - Ed.)\* There is an appendix - a number of publications from foreign media. In one of them, from Sweden, there is important information. It turns out that two hundred prominent scientists and doctors have prepared a statement there demanding to conduct independent comprehensive studies on 5G technology and only after their completion to decide whether to implement or not. And we do not even think about it, we are already talking about 6G. But in such cases everything must be weighed.

Let me give you an example. I recently received a letter with a request to create equipment for one of the hot spots. What is the plan? It arose on the basis of situations typical not only for this region. Here is a military convoy, often hooligans begin to throw stones,

bottles, everything at hand, at it. I am asked to create equipment in the 900 gigahertz range on solid-state elements. What does this give? If you turn it on, then at a considerable distance from the convoy (about 100 meters) it will create a very unpleasant atmosphere for a living being. It will seem to a person that he is being bitten or tortured with a weak current.

## **8. Very tough!**

**Yuri B. Zubarev:** Sure. But what about the vandals? By the way, their lives will not be threatened, this is prevention. But I am talking about modern technical possibilities and the need to clearly understand what and who can benefit and what can be harmful. The achievements of science and technology must be disposed of sensibly, as they say now, without fanaticism.

## **9. So, will you take on the creation of an anti-vandal horror story? If so, why?**

**Yuri B. Zubarev:** First, you need to have such a device. But I will not undertake its development, since the profile of the institute where I work now is not related to this topic. The development is real though. 900 gigahertz is not very difficult for us now. It should be an eye-opener that the higher the frequency, the less penetration into the human body, the effect is superficial - just, as I said, a kind of bites.

**10. But we are talking about more dangerous things. In this regard, I want to note that after the release of our conversation with Oleg Grigoriev, some readers and my colleagues reproached us for the fact that we, they say, are streamlined in assessments - do not answer directly the question: so dangerous for the health of people and future generations are networks like 5G, or is it an exaggeration? How would you answer this question?**

**Yuri B. Zubarev:** I will refer to the fact that the [International Agency for Research on Cancer](#) [IARC] has called the radio frequency spectrum carcinogenic. This is the RF of the mobile phone. This means, it stimulates the appearance of tumors, including malignant ones. If the spectrum itself is carcinogenic, then the emergence of new systems in the radio frequency spectrum will be a priori. In any case, if it's quite simple: all these things are harmful. The most important thing is the culture of using mobile phones. "Mom, I'll be home in half an hour" - that's how, if it is quite figuratively, it will be quite normal. Long conversations are harmful to health. There is no doubt about it.

**11. Clear. Scientific and technological progress will not stop, there will be new discoveries, inventions and their application. What should i avoid? What should be the relationship in the chain "science - power - practical implementation of scientific achievements - society"? And, let's take a broader view, won't the planet die if various players in the world arena proceed only from selfish principles, continue to compete fiercely, without considering the prospects for the future?**

**Yuri B. Zubarev:** Of course, progress cannot be stopped. But there are a number of countries, for example Austria, where so far the government has completely abandoned the use of 5G. The picture was similar in France. There, President Macron first agreed that it was necessary to conduct research on how all this affects the climate, human health, and then do something practically. But then he gave in, backtracked: they say, it is necessary to introduce 5G. Our situation is closer to the French one. I can say simply: 2, 3, 4 G existed, and now a fifth has been added - is the radiation as it was, and how it will be. The proportions change significantly. In this regard, it is necessary to change the legislative documents. After all, they were developed when there was no mobile communication yet. All this creates the basis for confusion and [ad-libbing](#) for the sake of supposedly convenience, but in fact - to achieve other goals, including, of course, the growth of profits of various companies. Also USA, Canada, Japan have already moved away from the standard of 10 microwatts per square centimeter towards 200, even 1000 microwatts. I have already told you that a dozen or a little more affects children, but here two hundred or a thousand. Feel the difference, as they say.

That is why, I repeat, mobile phones are harmful. Because of the over and over again - culture. Not for 5 hours, as many of our girls and women say. Scientists who work with the brain told me: one conversation can last no more than five minutes. And in a day - no more than half an hour. This is not a horror story, but a reality. Only then can you live longer without unnecessary ailments.

## **12. Carelessness is often fatal.**

**Yuri B. Zubarev:** When I was the Deputy Minister of Communications of the USSR, the [satirist Mikhail Zadornov](#) asked me to help him to install a wired telephone at his [dacha](#) in [Jurmala](#). I asked him to contact us with a letter: he was controlled (the telephone law was then not in honor). It turned out there were no line telephony facilities. Zadornov decided to seize on the emerging mobile communication, and, as a wealthy man, he took a tariff of the type "say what you want." And he didn't care about the consequences. Then it turned out, he talked for a long time. Unexpectedly for many - after all, he was a physically healthy person - he was diagnosed with brain cancer.

## **13. Yes, he was a friend of our editorial board. Everyone was surprised how fast it went.**

**Yuri B. Zubarev:** The [Second International Forum of Oncology and Radiology](#) was recently held. On it, in his documents, it is directly stated about this kind of consequences of abuse of mobile communications.

## **14. It is important that cautions are heard. But, as it seems to me, something prevents scientists from uniting, proposing a real program for entering tomorrow, and working out urgent measures.**

**Yuri B. Zubarev:** Hmm ... Let's go back to our metro carriages. We know that Wi-Fi is not

safe there. Don't scientists talk about this as well as about another similar one? They do. Warn of the consequences of mindless use of 5G and other advances. More questions not to scientists, who can always be reproached for something, but to the authorities, business, which should be more responsible, think not only about profits. In fact, the [Ministry of Health](#) is not showing any interest in this area. There are many questions to each person individually. It all depends on his will, the ability to change the way of his everyday life to start with.

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*\* This book by Yu.B. Zubarev was published in 500 copies. Shame on our society! It would be useful to publish it at the expense of the state and provide it with children's institutions, schools, other educational institutions, libraries, so that teachers can get acquainted with the recommendations, pass them on to children, adolescents, youth. If, of course, we are concerned about the health of the nation, not only in words.*

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**From the editor. With this conversation "LG" begins a series of publications under the heading "Health of the Nation". We are waiting for the participation of readers. What topics are you interested in, dear friends, what could you suggest?**

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Moscow is covered by a network of base stations - there are more than 10,000 of them, separated from one another by about 500 m. When new generations of communication (5G, 6G) are introduced, the distance between them should not exceed 100 meters. We just have to multiply the numbers ...

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### **WHAT ARE THE PROS OF 5G?**

Igor Akulin, a senior business consultant at Huawei in Russia, explains:

- First, high speed. Secondly, there is a huge number of connections - even in LTE (4G) connections there are only a few hundred users per cell. In 5G, that's a million connections per square kilometer. In addition - high reliability and low latency. In a few milliseconds, the signal must travel all the way. This is important in telemedicine, working with robots, or when driving a car remotely. And that's not all.

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## "LG" - DOSSIER

Yuri Borisovich Zubarev - Soviet and Russian scientist, a prominent specialist in the field of communications and information science, cryptographic protection, radio transmission systems, television systems, Corresponding Member of the Russian Academy of Sciences (1997). Born February 9, 1938 in Ostashkov, Kalinin Region. In 1960 he graduated from the Faculty of Radio Communication and Radio Broadcasting of the MEIS, in 1964 - graduate school there, was rector of the All-Union Correspondence Electrotechnical Institute of Communications (1971–1979), Deputy Minister of Communications of the USSR (1979–1992). Doctor of Technical Sciences, Honored Scientist of the Russian Federation, Laureate of the State Prize of the Russian Federation, twice laureate of the Prize of the Government of the Russian Federation. He has more than 500 scientific works, 24 monographs, 66 copyright certificates and patents on his account. Currently - Advisor to the General Director of CJSC MNITI (successor to the Moscow Research Television Institute).

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### **Question to the Minister of Health of the Russian Federation [Mikhail Murashko](#)**

Maybe your ministry will initiate and allocate funds for a comprehensive study of the impact of networks and mobile communications on the health of citizens? It is time to know, in particular, how they affect the development of cancer, primarily brain cancer.

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