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5G . EVERYTHING YOU NEED TO KNOW

All the truth about the unknown hazards of electro-magnetic field (EMF) radiation

COOLTURA

1. 5G, a New Paradigm

5G is a large scale leap, a new paradigm, a revolution. Everything from the washing machine to baby diapers will be connected to the Internet, and everyone on the planet will have instant access to each other and to everything. Each one of our interactions will remain as an indelible mark. But for this to happen, a new infrastructure with a much denser network is required. 5G uses high-frequency millimeter-waves that allow a huge amount of data to be processed with minimal latency, but since these waves are shorter and have a shorter reach, many more antennas are needed compared to the previous technology. Even though the COVID-19 pandemic has delayed the process, it is estimated that millions of new 5G base stations on Earth and over 200.000 new space satellites will connect with 200 billion objects that will be part of the Internet of Things in the beginning. According to 5G International Appeal: “No person, no animal, no insect and no plant on Earth will be able to avoid exposure, 24 hours a day, 365 days a year, to new levels of radiofrequency radiation ”.

The first time I went to Epcot Center, in 1988, I was 9 years old. Inside the Spaceshift Earth, that great ball that is the park´s emblem, there was a journey through the history of communication. I remember very well the future of communications that was

then predicted: a woman was talking on a video call while she was at home and doing her housework. She could see herself with the other person, in real time. In that moment it seemed impossible. But that future came a few decades later, and became popular through applications like Skype. I visited Epcot again in 2010, and I remember my intrigue about what future would be depicted then: it was all about smart cities, with autonomous vehicles, and what is now called the Internet of Things, that is, all objects connected, exchanging information and being controlled from a distance.

That future is getting closer, and 5G is the technology that will make it possible. For many people it is only part of the evolution of communications: the logical leap from 4G to a faster and more efficient technology. For example, we will be able to download an entire movie in our cell phones, in the highest quality, within a few seconds! The latency time (network response) will be so, but so minimal, that musicians will be able to play from different cities and keep synchrony as if they were together. These are only some of the many things that we will be able to do, some of the benefits pointed out by those who welcome this new technology.

But to consider 5G as the mere development of 4G in terms of speed or improvements for cell phones or devices´ connectivity, is to lose sight of the whole picture. The leap that this technology represents is one of a large scale: it is proposed as a "new industrial revolution", a technological "new paradigm", or as the catalyst for a "new ecosystem". In addition to communications, the future of health, industries, circulation in cities, relation with things and people, will be marked by the incorporation of 5G.

But not everything is amazement and welcome at the possibilities that 5G would imply. For starters, alarms have arisen from different sectors that indicate that this technology could be harmful to our health, or at least that not enough studies have been carried out to guarantee that it is not. But there are also other issues that deserve to be analyzed, issues on which different people have focused and which will be reviewed below: the digital and economic gap, unemployment, individual freedoms and pri-