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Future Technologies that Will Change the World in the Next Century

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Ultra-fast 5G Internet from drones with solar panels

Google is working on solar panel drones distributing ultra-high-speed Internet in a project called Project Skybender. Theoretically, drones will provide Internet services 40 times faster than in 4G networks, allowing you to transfer gigabytes of data per second.

The project provides for the use of millimeter waves to provide the service, since the existing spectrum for the transmission of mobile communications is too full.

However, these waves have a shorter range than the 4G mobile signal. Google is working on this problem, and if all technical problems can be solved, the Internet of unprecedented speed may soon appear.

5D disks for perpetual storage of terabytes of data

Researchers have created a 5D disk that records data in 5 dimensions, persisting for billions of years. It can store 360 terabytes of data and withstand temperatures up to 1000 degrees.

The files on the disk are made of three layers of nanodots. The five dimensions of the disk relate to the size and orientation of the points, as well as their position within three dimensions. When light passes through the disk, the dots change the polarization of the light, which is read by a microscope and a polarizer.

The team from Southampton, which develops the disc, was able to record the Universal Declaration of Human Rights, Newton's Optics, Magna Carta and the Bible on the disc. In a few years, such a disk will no longer be an experiment, but will become the norm of data storage.

Underwater transport tunnels.

Norway plans to build the world's first underwater floating bridges at a depth of 30 meters under water using large pipes wide enough for two lanes.

Given the difficulties of moving around the terrain, Norway decided to work on the creation of underwater bridges. The project, which has already spent \$25 billion, is expected to be completed in 2035.

Other factors have yet to be taken into account, for example, the influence of wind, waves and strong currents on the bridge.

Bionic lens for Superhuman vision

A Canadian doctor is going to conduct clinical testing of "bionic lenses", which improve one hundred percent vision by 3 times with an 8-minute painless operation.

The new lens will be available by 2017, improving the natural lens of the eye. During the operation, the syringe inserts a lens with saline solution into the eye, and after 10 seconds, the folded lens straightens and is located above the natural lens, completely correcting vision.

You will be able to record your dreams

Scientists have managed to transform YouTube videos by scanning the visual centers of the brain of the person who watches them. In the future, the technology will be advanced enough to record dreams.

The brains of three team members involved in the project were scanned using functional magnetic resonance imaging when they watched video clips on YouTube. The researchers then interpreted the data using a mathematical model that

served as a kind of brain dictionary. The dictionary later recreated what the participants saw by scanning random clips and selecting those that corresponded to the activation of brain activity.[1]

Although the result was not so clear, scientists hope to improve the technology in the future.

Refrigerators

The Russian designer proposed the concept of a refrigerator, called "Bio Robot Refrigerator", which cools food using a biopolymer gel. There are no shelves, compartments and doors in it — you just insert food into the gel.

The idea was proposed by Yuri Dmitriev for the Electrolux Design Lab competition. The refrigerator uses only 8 percent of the energy at home for the control panel and does not need energy for actual cooling.

The refrigerator's biopolymer gel uses light generated at cold temperatures to preserve food. The gel itself is odorless and not sticky, and the refrigerator can be installed on the wall or on the ceiling.

References:

1. 20 технологий будущего, которые изменят мир в ближайшие 30 лет. [Electronic resource]. – Mode of access: <https://www.livejournal.com/media/609781> – Date of access: 15.03.2022.