

The communication technologies have evolved since the beginning of the history.

Requirement have led to a new communication technology to emerge, and the needs have been fulfilled. Required features can be higher speed, more reliability, increase in the number of connected devices, more security etc. These properties may shape the current technology or result in occurrence of a new one depending on the circumstances. For instance, the evolution of mobile communication from 1G to 5G.

Today, we are talking about the 5G and what it brings and provides us, or how it is going to do that, how the necessary infrastructure, which is needed to carry out the new features, is going to be built. Tomorrow will be 6G's era and this evolution will continue.

In my opinion, we will have all the following extreme abilities or characteristics in the future communication technology:

- High data rate & capacity → (>1 Tbps)
- Coverage → (including the sky, sea, and space)
- Low energy & cost → (mmW/THz)
- Massive connectivity → (10M/km²)
- High reliability
- Low latency → (E2E delay <1ms)

With the development of the future technology having the enabling properties, there will be thousands of applications, implementation areas. One of them is multisensory applications such as Augmented Reality (AR), Mixed Reality (MR), Virtual Reality (VR). These systems may eliminate the need to be side by side to feel or to experience something, communicate the loved ones which are far away from you.

Another one can be connected robotics and autonomous systems. Drone delivery systems, autonomous cars, autonomous drone swarms, vehicle platoons, and autonomous robotics will take their places in our lives.

Imagine that individuals will interact with their surroundings and other people utilizing discrete devices, some worn, some implanted, and others embedded in the world around them, employing wireless brain-computer interactions (BCI) technologies instead of cellphones. People will be able to control their surroundings with gestures and interact with loved ones through haptic signals.

High Altitude Platform Stations (HAPS) will become a part of our networks, and act like an intermediate layer between satellites and base stations. Even, it is possible that HAPS can provide mobile services to an area as big as a city and take away the need of lots of base stations. To sum up, whatever the name of the coming technology, the important thing is which breathtaking features are coming up with it. Since features are the ones bringing the innovation and improve our lives in many areas.