

Future technology predictions

Some things we know are coming

1. Cloud Gaming

There are around 1.8 billion gamers around the world. The industry is growing with an exponential pace with the advent of platforms like *Twitch* for streaming and *Discord* for community communications. But gaming, which may initially seem irrelevant, has a big role to play in pushing computers to be more efficient.

Since the advent of computers and other electronic devices, the development of these devices has mainly been pushed by the need. Computers are becoming faster and more efficient due to need and demand for more powerful computing. One of the most demanding job that personal computers has to offer is gaming. Game developers always find ways to make games better, often at the cost of computation. Huge graphical and simulation jobs push the computer hardware to their extreme limits. Its fair to say that the hardware advancements of personal computers has by far not been in par with the advancements of computer simulated video games. Developers have come up with unique solution to this problem , *Cloud gaming*. The idea is that the heavy computational load of the games is done on a cloud server, and the local computer just video streams the game. Cloud gaming servers can be way more powerful than personal computers thus overcoming the performance barrier. The biggest barrier to this idea is *latency*. The time required by the local controller to register an event on the cloud server is bottle-necked by the the network efficiency. Developers are still working on optimizing this latency. Companies like *Shadow*, even the tech giant *Google* with its coming soon cloud gaming platform *Stadia* will very soon hit the markets and change the gaming industry for ever.

2. Driver less cars

Traffic jams are a menace. More disturbing is the fact that its only cause if human error. Theoretically with automated cars there will be no traffic jams. There even will be no need for traffic lights. *Tesla* has already tested their driverless autopilot system on UK roads. *Google*, *Apple*, *BMW*, *AUDI* are also working on developing their own driver less cars.

3. 5G network

The successor of 4G is set to take over the communication world. With cellphone companies like *Samsung* and *Apple* already announcing their 5G phone variants, the revolution is more closer than we think it is.

Some things that may shape the future

1. Cloud personal computers

Cloud computing is already a thing with platforms such as *Google Cloud Platform*, *Microsoft Azure*, *AWS* already available in the market. But what if the whole os of all our devices is run in the cloud! The heavy computation will be done in the powerful cloud servers and the local machines will just display and interact with the results. This could mean that every device, irrespective of their size could perform the same work

provided they are connected to the internet. Smart watches, cell phones, laptops will all be synced to the root level. With seamless interconnection, each device will provide the same interface.

One might think that with cloud gaming already being a thing, cloud pc is not that far off in the future. But that is not true. We still haven't reached such low latencies in our regular cellular networks. There are even places in the world with no internet connection available. Another barrier to this is privacy. With basically all our data residing in the cloud, the possibilities of data leaks will rise tremendously. Most people (smart people 😊) will not trust companies with their private data and even if they do the international authorities will give always oppose this act.

Thus for personal computers to come true all we need is a low latency network, massive amounts of infrastructure for cloud storage and computation and some kind of encryption ensuring people that their data can be accessed by them only.

2. AI assistants

Intelligent voice assistants are almost here. Our smart phones are already loaded with some sort of voice assistants like *Google assistant*, *Siri*, *Alexa*, *Bixby* etc. We also have improved versions of these with devices in devices like *Google Home* and *Amazon Echo*. But some day they will start acting for us. They will start receiving our calls and responding, they will plan our daily schedules, make our appointments. Recently google demonstrated their improved assistant taking calls and making barber appointments. Maybe someday everyone will have a Jarvis of their own.

3. Flexible and transparent display technology

Display manufacturers like *LG* and *Samsung* are reportedly working on transparent OLED technology. Although what they have showcased in the tech conferences are mostly unnecessary gimmick, the advent of transparent displays could have a lot of potential. Smart car windshield that display information and help people drive (or potentially distract them and cause worse accidents), or maybe smart glasses or even contact lenses (like we see in movies 😊).

4. Right to open source software

Education, food and water, healthcare are some of the basic fundamental needs of people. Most governments try to provide these basic amenities for free. With computers and softwares playing such a big role in every field (education, healthcare, business) we are heading towards a time where software is one of the basic amenities. And the only way to achieve this is through open source softwares. We all should start using open source softwares and hardware technologies and encourage others to do so as well.

4. Robots taking over the human race

Nah, just kidding. 😊 Lets hope the movie series *Terminator* does not come true, but what is already happening is people are getting lazy, and not enjoying the real world after being consumed by tech world. Thus in one way or the other technology is taking over us. While major improvements in medical science are being made, the contribution of tech in entertainment is huge, making people lazy and unhealthy. Sometimes amongst all this tech hype, sometimes we need to take a deep breath, go outside, enjoy the beautiful nature and wildlife, and enjoy the presence of real life friends.