

Top 5 IT Innovations That Keep Changing Our Lives

During the last couple of decades, we all have been watching the world with our breath bated, as it seems the ideas from old fantastic fiction books are taking on life. We see new technologies and devices popping up every year, we feel the changes becoming more rapid and smart, and fortunately, we see top brains of the world creating something to save the humanity, not to destroy.

Of course, there are much more than five brightest innovations recently implemented. However, these five have definitely changed our lives for the better, so welcome the winners:

3D printing



Probably many of us had a childhood dream of possessing a magic power to create anything we want just by waving a magic stick. It is such a great piece of luck that Chuck Hull didn't give up his dream and back in 1986 created the first prototype of modern 3D printer. This invention can hardly be overestimated, as it serves many industries like engineering, production, car manufacturing, healthcare, fashion, military and food production. 3D printing saves a lot of money and time, while we have an opportunity to prototype what we are going to produce at the end, and then to easily amend the printed parts, if something went wrong in our calculations.

Nowadays we can print not only some kitchen staff or toys, but also fragments of human bones, or even human organs like ear, skin or kidney.

The most promising areas for future application of 3D printing technology remain medical field and manufacture of parts, which are currently produced using manual labor. Further cost reduction will allow expanding the boundaries for 3D printing successful usage.

Virtual Reality (Mixed Reality, Augmented Reality)



Virtual reality supposes full immersion into a virtual world, where everything feels so real, that our brain starts thinking it is real indeed. By wearing special VR headset or glasses, one can walk along Champ Elysees or shoot aliens at spaceship. However, besides entertainment, the technology is also used in architecture, car manufacturing, education and health care.

With the help of VR set one can create prototypes of new vehicles and test them free of charge, as they do not exist in reality. Architects and designers can create models of future buildings and let their potential clients walk around and feel the atmosphere before buying it.

With the help of VR technology, it is now easier to train people in many areas, including military, space, and surgery. Even it is possible to operate a patient remotely, by using VR headset, which makes this technology priceless. Positive effect is also proven in psychological therapy, when a patient is exposed to his fears or anxieties being sure that in reality his surroundings are safe and comfortable.

Smart Home and Internet of Things (IoT)



A smart home is using internet-connected devices, which enable remote monitoring and management of appliances and systems like heating, lighting, security etc.

Nowadays, when we are mostly stuck at work or on the way from home to work and backwards, it is extremely important to spend time efficiently when at home – to minimize housework and to increase the level of comfort. That is what smart home does with the help of IoT like smart TVs, smart fridges, smart dishwashers and many more. By using your smartphone, you can control the level of lighting or heating in your house. The system will alarm you, if there is an unintended guest at your door.

Your TV will screen available movies or music according to your taste. And your dishwasher will start the work, having previously checked, when electricity is at the lowest price during the day.

Installed in your car, the system will identify any trouble that may arise in the vehicle, and will connect the service to make an appointment for you or even it will order the required spares to be replaced during that technical maintenance.

We are facing a wonderful time when we get more time for our families and ourselves to be spent wisely, while our assistants undertake all the dull housework.

Blockchain and Cryptocurrencies



Cryptocurrencies have rushed into our lives like a hurricane, leaving less and less people uninterested. Some are investing to scrape up a fortune; some are just testing the system. However, the fact that using cryptocurrencies you are able to transfer any amount of money to any place in the world within thirty minutes really means something.

For any cryptocurrency there is a blockchain, which is a digital ledger technology that records all transactions made in the system, without a need for any financial intermediary like a bank.

Among the advantages of blockchain are:

- ✓ **transparency** – all transactions are accessible by all users, besides, it is not easy to alter the data once logged, which makes the technology very secure as well;
- ✓ **cost efficiency** – as all transactions are made between two direct parties, without any intermediary like a bank, there is no additional costs accrued;
- ✓ **decentralization** – there is no single massive data center to support the system, instead the information is spread among the users, which ensures additional security of the data;
- ✓ **user-controlled networks** – users and developers are in full power of making decisions within the system, without attraction of any other third party.

While it is rather interesting just to watch the process of cryptocurrencies and blockchain evolution, we also should look at the effects it makes in the whole financial system of the world.

B2C E-Commerce



B2C (Business-to-Customer) e-commerce is the exchange of goods and services between online stores and individual customers over the internet. And don't tell it is an ordinary thing!

B2C e-commerce is one of the fastest growing sectors of economy. In 2016, retail e-commerce sales worldwide amounted to 1.86 trillion US dollars, by 2021 the revenues are supposed to grow up to 4.48 trillion US dollars.

E-commerce makes it easier for both customers and vendors to make shopping experience fast, quality and comfortable. The shoppers can make purchases from the comfort of their own home, while vendors increase their sales by attracting customers from all over the world.

Nowadays almost every company has its own online store, where the consumers can check the availability and appearance of goods. That is a great deal when it is raining outside and you just want that T-shirt right now, isn't it?

Among the whole variety of modern technologies there is a common trait, which inspires and gives hope – they make our lives easier, full-fledged and more conscious. They provide us with the most valuable non-replenishable resource – with time.