

Section 03. Smart Solutions in IT

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The Future of Programming

Nowadays digital literacies are one of the requirements to employees in various areas of human activities, where programming which belongs to computer sciences is seen as a bonus when applying for a job. Some predictions how programming will develop in future are given in this paper.

Today a lot of people want to be programmers. To become a programmer they can undergo special trainings in learning deeply this science in universities (formal education) or at home by themselves, i.e. taking informal education. Thus, an overall number of programmers can significantly increase in the near future. Moreover, there are cases, when people are engaged in programming various devices, home appliances for example, not being aware that the actions they perform are very close to programming.

Modern programming could be classified into four main branches:

1) *Web-developing*, which will be always actual because the Internet became one of the essential parts of our life.

2) *Software development*. No hardware will work without software.

3) *Game development*. In our time game industry is gaining popularity among people. People are increasingly inventing new technologies for the gameplay.

4) *System administration*. Maintenance of computing systems is a necessary process to support their work. While such systems exist, system administration will be relevant.

Today there are all the prerequisites for new technologies and programming languages to appear. Emerging of quantum computers can lead to a new era in hardware development that will need new programming languages. The development of artificial intelligence can change programming, too.

Everything that now seems fantastic can be invented in the future. New devices and scientific discoveries, especially manipulation of space and time will require a completely new approach. That is why almost new branches of programming may appear in future. The programmer's tools may be significantly changed. The usual writing of the code may be replaced by new methods, where the most interesting ones is sensory programming by using voice, gestures and touch.

At the same time coding will become easier for people. Dynamics of programming languages development shows that languages improve and become more and more understandable for an average person.

To sum up, programming skills will be needed for almost all human activities. It is most likely that the programming will become narrower specialized branch and may disappear as a profession in case every person have basic programming skills and eventually programming will assimilate with other industries.