SMART TECHNOLOGIES IN SCIENCE AND ART Oleksii Nikulnikov

Faculty of electric power engineering and automatics, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

Describing a definition of something, being as diverse as smart technologies, may be quite not a simple task but in ordinary live we often use these words for something totally innovative and at the same time vastly spreadable in all society and not only scientists' community. Analyzing world tendencies, refer to the conception of the information society where it's impossible not to work with the great amount of information from different flows. Also, it provides integration of computing and telecommunication into other ones that previously didn't have such opportunities. 'What makes a technology 'smart' is its capability to communicate and work with other networked technologies, and through this ability to allow automated or adaptive functionality as well as remote accessibility or operation from anywhere (Campbell, 2019, p.1)' – that's how we can describe the main difference of that technology.

Nowadays, there are a lot of products with the heading of 'smart' that often overlap with cloud technologies, Internet of things, and AI. Initially, the term SMART was used for self-monitoring, analysis and reporting technologies but according to modern usage it defines systems that can respond to changes in own environment based on input and control and the ability to steer are main in the context of automatic systems. And the use of smart technologies continues to increase yearly.

The room for the implementation of such innovative things in different areas of human activities is huge and may be divided by various purposes: in home technologies, logistics, factories, for creating multitasking programs for different researches and in analyzing big information flows. Progress developing achievements for rationalization of investigations nowadays operate with such possibilities as:

- Analyzing large datasets with great accuracy and speed for personalized medicine, tending to individual lifestyle habits, for finance systems, sensor systems of environment conditions and prevention;
- Automatization of information searching and representing systems due to purposes of askers that can be widely used for fast data-mining and the subject of further research of the impact of it using in studying, everyday life, making statistic predictions;
- Machine learning algorithms for engineering systems and creating automatic control systems;
- Virtual and augmented reality as for simulations of real-life experiments or scenarios, as for entertainment and game industry developing.

When it comes to the artistic part of smart technologies that are involved for ordinary users, graphic creators based on artificial intelligence have made essential progress in both technology and quality in last 2-3 years. Databases of such systems rise by implementing pictures in all styles and genres to correspond searches by their key words.

Finally, 'Researchers can now use technology to automate data collection and analysis, collaborate remotely, and disseminate their findings online. Additionally, technology has become a subject of research, with researchers studying the impact of technology on various aspects of life (Qudus, 2023, p.2).' But there might be bounds in developing such technologies because humans don't live in datasets but continue changing for the better based on a savvy that's not typical even for smart machines. Therefore, even referring technologies as smart doesn't exclude that they cannot but follow a script, though that script allows reorganizing to better performing on a task given. It is matter for human beings to distinguish the difference between fragile human acuity and precocious machines that have been become as result of human ingenuity.

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