

nelinejnosti v teorii sejsmostojkosti (gipotezy i zabluzdenija) : monografija / O.V. Mkrtchyan, G.A. Dzhinchvelashvili ; M-vo obrazovanija i nauki Ross. Federacii, FGBOU VPO «Mosk. gos. stroit. un-t». – Moskva : MGSU, 2012. – 192 s. (Biblioteka nauchnyh razrabotok i proektov MGSU). ISBN 978-5-7264-0662-6]

13. SP 14.13330.2014. SNIP II-7-81 \* Construction in seismic regions / TsNIISK them. V.A. Kucherenko, JSC "Research and Development Center" Construction "- Moscow: JSC" TsPP ", 2014.-126 p. [SP 14.13330.2014. SNIP II-7-81\* Stroitel'stvo v seismicheskikh rajonah / CNIISK im. V.A. Kucherenko, OAO «NIC» Stroitel'stvo» - M.: OAO «CPP», 2014.-126 s.]

14. Vladimir G. Tsuprik Substantiation of the method for calculating the reliability of offshore structures from the position of calculating structures by limiting states UDC 721.012: 001; 519.718.2; 622.276.04 .; 2014.-10 p. [Tsuprik V.G. Obosnovanie metoda rascheta nadezhnosti morskikh sooruzhenij s pozicij rascheta konstrukcij po predel'nym sostojanijam UDK 721.012:001; 519.718.2; 622.276.04.; 2014.-10s.]

15. Cho Chantha, Assessment of the technical state of the "foundation-construction" system based on monitoring: dis. Cand. technical. sciences. Rostov-on-Don ; 2012. 188 p. [Cho Chantha, Ocena tehnicheskogo sostojanija sistemy «osnovanie-sooruzhenie» na osnove monitoringa: dis. kand. tehnich. nauk. Rostov-na-Donu,; 2012g. 188 s.]

## TECHNOLOGICAL PROGRESS OVER THE LAST FIFTEEN YEARS AND OUR DEPENDENCE ON IT

*Savin Konstantin Vyacheslavovich*

*Bachelor's student, Oil and Gas Department,  
Ukhta State Technical University branch in Vorkuta*

*Lozhkina Tatyana Vladimirovna*

*Senior lecturer, Department of Foreign Languages,  
Ukhta State Technical University, Ukhta*

### **ABSTRACT**

The article focuses on how gadgets and new technologies are affecting our life in order to make it more convenient. Obtaining the benefits of using electronic devices, we don't realize at times, when assistance becomes dependence.

**Keywords:** technology, gadget, technological processes, device, dependence

It makes me wonder how people lived fifteen or even twenty years ago without modern gadgets. It is really amazing to see how much technology has advanced and changed our lives. Since then, technology has shown the ability to develop and introduce new gadgets almost every year. We can see changes everywhere in the world we live in. Technology has made our life more convenient, from non-color and pocket phones to cell phones with 4K resolution, from desktops to tablets, from a physical map to a GPS application. Thus, I am asking myself how technological advances have helped to improve the quality of life within the last fifteen years and whether the invention of numerous gadgets and appliances make us dependant on technology.

Let me start by giving the definition of the technological change. Technological change is a term used to describe the overall process of creating, rationalizing and disseminating technologies or processes.

The founder of the theory of innovation processes in their modern understanding is the Austrian economist Joseph Schumpeter. Based on the theory of "long waves", he substantiated the possibility of overcoming the economic crisis through technological changes in the economy.

Joseph Schumpeter distinguished 5 typical changes:

- changes due to the use of new equipment, new technological processes and new market support for production;

- changes due to the use of products with new properties;
- changes due to the use of new raw materials;
- changes in the organization of production and methods of its logistics;
- changes due to the emergence of new markets.

Modern innovative theories explain the alternation of cycles of business activity by changing technological structures in social production. The term "way" should be understood as the established order of the organization of a system. The technological structure is characterized by a single technical level of productive forces and a common scientific potential.

The life cycle of the technological structure includes several phases:

**1. The emergence** of a new technological order, based on modern scientific discoveries.

**2. Monopoly** is held for some time (up to twenty years), during which the monopoly firms derive maximum profit. As a result of the response actions taken by competitors, the monopoly position is violated.

**3. Domination.** A leap in development is characteristic, which is promoted by the accelerated inflow of capital into the new technological order. The duration of this phase is about fifty years. It is connected with the structural reorganization of the economy, the renewal of technological processes in public production.

**4. Fading.** The dominance of a new way of life in the economy leads to a gradual obsolescence of the previous way of life.

The leap of technology has accelerated beyond recognition. About ten or fifteen years ago we still had tube TVs, low-functional mobile phones. And today these are ultra-thin mobile phones with access to the Internet. Now you no longer need to spend money on cameras and film when the smartphone has its own camera. With the advent of the Internet, CDs have remained an excess of the past.

The changes affected not only the devices. Fifteen years ago it was difficult to go to see a doctor. It took ages to get to the front of the queue at the polyclinic. But now you can make an appointment through the website of the "State Service", or you can even contact a specialist online. He will consult you with the help of video chat on Skype, even in WhatsApp or Telegram and tell what to do next. Thanks to advances in technology, scientists and doctors can use modern medical equipment to help people be healthier.

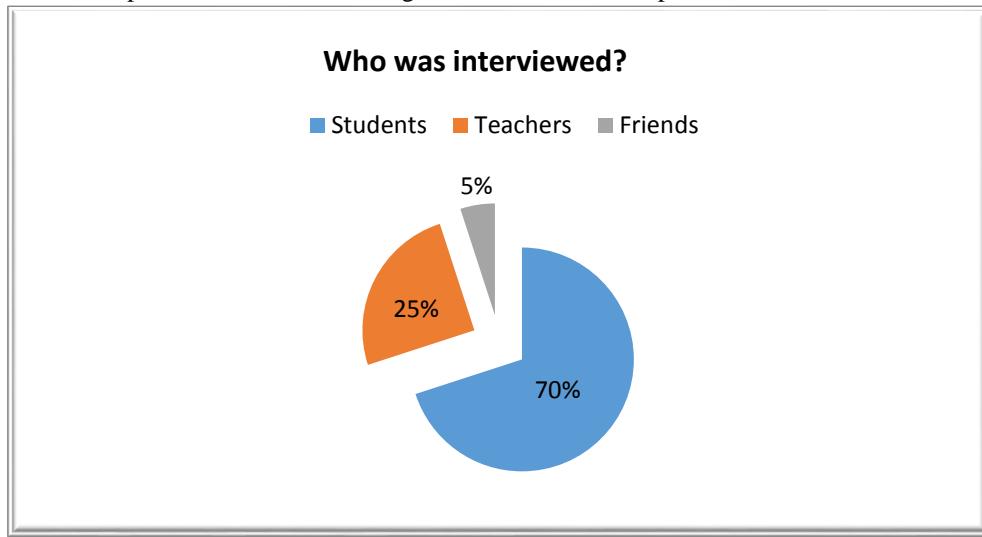
Nevertheless, how wonderful this world was that has changed in such a short time, it has its disadvantages. Modern computerized and automated production is characterized by a pronounced engineering desire to maximally free people from participation in technological processes - the humanization of production. By himself, man in his production activities has been no longer effective in comparison with technical means: machines and robots.

"Today computers make everything" - this common phrase, of course, does not mean that the computer cooks soup, manufactures a car body, assembles a video recorder, and publishes a book or magazine.

However, the computer controls the technology, industrial equipment and automation that directly make the things we need.

Ultimately, technological processes are automated on the basis of a computer. Due to this, a person is freed from direct participation in production operations. Functions that he performed earlier, in modern production are done by machines. Physical labor is gradually eliminated. The role of man today is control, adjustment of technology, management of production by means of a computer - mainly mental work. A person cannot be replaced by automatic machines only where his intuition, experience, and creativity are necessary.

On the other hand, we are becoming more and more dependent from such electronic assistance. Various devices have facilitated the most aspects of human life so it might seem that people won't be able to function without them. It is difficult to argue the fact that the majority of people starts and ends up the day with a gadget in their hands. In order to find out the level of human dependency on technological devices an online questionnaire was carried out. The survey covered 62 people from 18 to 55 years old. All respondents own a smartphone or tablet. Out of the 62 respondents interviewed 70 percent were students, 25 percent were university teachers while remaining 5 percent were friends (Fig. 1). When asked how frequently they use their mobile phones, 30 percent said that they use it from two to four hours a day, while 60 percent admitted that they can use their phone more than four hours a day.



*Fig. 1 – The participants of the survey*

According to the survey 60 percent of the respondents, on average, spend three and more hours each day staring at the displays of their gadgets. 20 percent of them spend nearly 5 and more hours in the Internet. The survey respondents identified different activities they do on the Internet. Socialising with other people and blogging take up the biggest part of their time (80 percent). Watching video and doing searches take up 15 percent and 12 percent. After that, it is playing online games (10 percent), and online shopping (3 percent). Among young people, there is a tendency to communicate with others through social networks (58 percent),

while people of the older generation prefer meeting each other to communicate face to face (18 percent). What is more, almost half of the survey respondents (46 percent) experienced some of the symptoms of internet dependence. 22 percent prefer communicating online to personal communication, 10 percent visit websites and social networks more often than necessary, 8 percent regularly check emails and messages, while 6 percent can lose the sense of time being online.

Additionally, findings of the survey show that men have greater dependence on gadgets than women, 60

percent of men compared to 40 percent of women (Fig. 2).

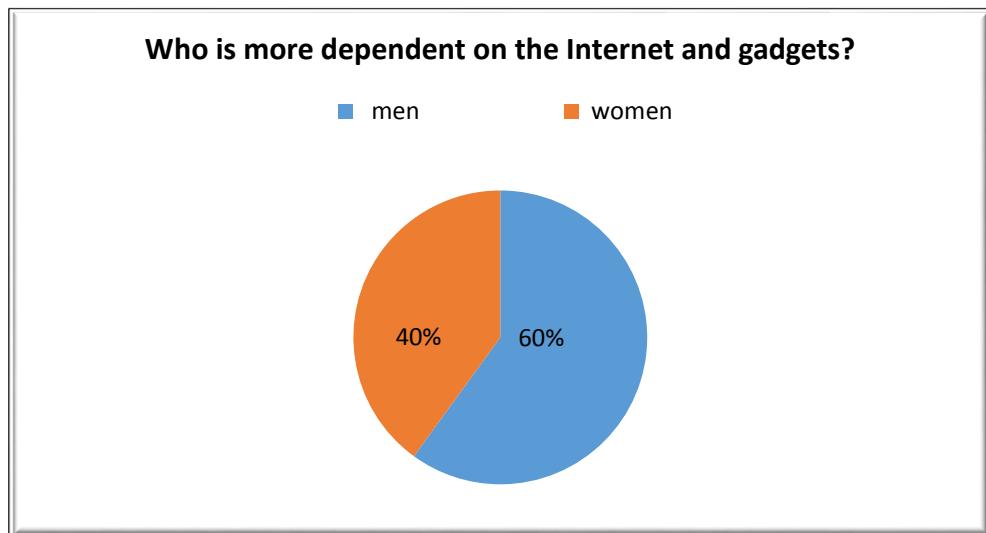


Fig. 2 – Dependence on gadgets

Thus, on the bases of the responses, we can draw the conclusion (Fig. 3). The number of gadget dependent people comprises 50 percent within young males, with

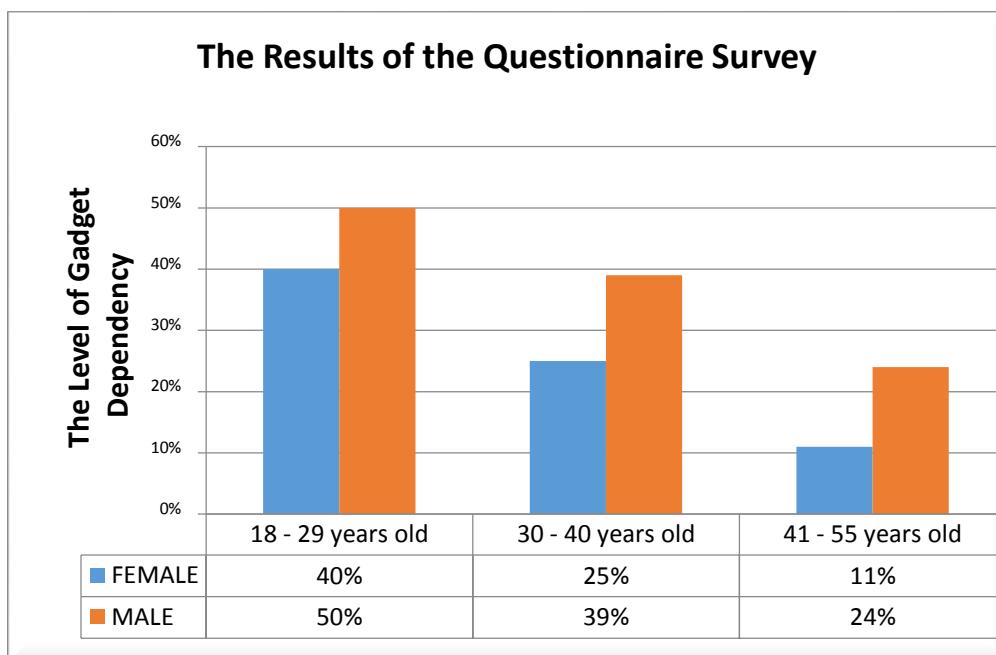


Fig. 3 – The level of gadget dependency

40 percent of females, whereas middle-aged people have practically no dependence (on average 20 percent). It is also important to say that people of the younger generation are very dependent on the Internet because of the variety of things they can do there.

[cypc\]:http://play.google.com/store/details/Marina\\_Rayskaya\\_Theoria\\_innovacij\\_i\\_innovacionnyx\\_pr?refId=D0bZDQAAQBAJ](http://play.google.com/store/details/Marina_Rayskaya_Theoria_innovacij_i_innovacionnyx_pr?refId=D0bZDQAAQBAJ)

2. Эпштейн М.З. Инновационный менеджмент – Теории инновационного развития[Электронный ре-  
[cypc\]:http://eos.ibi.spb.ru/umk/10\\_21/5\\_R1\\_T1.htm](http://eos.ibi.spb.ru/umk/10_21/5_R1_T1.htm)  
l#1

### References

1. Райская М.В. Теория инновации и инновационных процессов [Электронный ре-