



**Elderly employment under the conditions of economy digitalization**  
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**Abstract**

This paper is devoted to the topic of labour in the economy. The demographic crisis and the process of population ageing inevitably lead to the need to engage elderly people in social and labour activities. Today, the development of society is impossible without development of digital economy. Digital economy is a new stage in the development of society and will affect all spheres of life of Russian citizens. Social technologies that can enhance the process of interaction of the elderly with society and digital technologies are presented. This work is relevant today due to the increase in the retirement age.

*Keywords:* Population aging, unemployment, digital economy, economic activity, digital technology;

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**1. Introduction**

In 2018 the President had his annual state of the nation address and called for large-scale digitalization of the country, including the creation of “smart cities”. Digital economy is a new stage in the development of society and will affect all spheres of Russian citizens’ life.

Information and communication technologies significantly improve and facilitate life in economic and social aspects [3]. Digital economy is understood as a combination of public relations, services, and infrastructure within the framework of electronic technologies as well as the optimization of production processes that result in increase in the level of socio-economic development of states in a single digital space. Today there are many digital platforms that provide markets for goods and services [6].

**2. The problems of the elderly employment**

Every year the share of elderly people increases, which inevitably leads to the need for their engagement in social and labour activities. Involving the elderly in social and economic activities will improve the quality of their life. This work is relevant due to the fact that the content and form of labour change in digital economy. Due to the recent increase in increase in the working age it is necessary to adapt the elderly people to new professional competencies in order to meet the employment requirements. After all, labour activity becomes mobile and completely independent of a specific territory or workplace. It is possible that these professionals will turn out to be in demand. Therefore, initiatives from society or the state are urgent to facilitate training of elderly professionals to work with digital data and technologies.

It is in the developed megacities where the situation in the labour market for a larger number of elderly workers searching for work has been deteriorating. In most countries this category of people faces discrimination in terms of recruitment, retraining and further training. While the state has increased the pension age, but enterprises are not ready to hire these people.

According to the studies of F. Waltenberg, V. Vandenberg the production function implies negative correlation between aging of the able-bodied population and productivity of labour. The increase in the proportion of the elderly population aged 55-65 years to the total able-bodied population by 10% leads to a decrease in labour productivity by 2,2-2,7% [4]. According to the studies a reduction in wages and costs for older workers fail to compensate for the decline in labour productivity. Taking into account the lower productivity of labour, the profitability of using the elderly population is reduced even with the possible lower wages. In this regard, hiring older workers is unpromising for the employer. However, retraining in combination with greater qualifications can improve the productivity of workers in older age groups. In this regard, researchers urge enterprises to intensively invest in retraining older workers [5].

Contrary to stereotypes, the research shows that elderly workers are on average as effective in their work as young ones. Elderly employees face fewer employment injuries than younger ones and are less likely to resign voluntarily. Without measures aimed at the elimination of age discrimination, active policies targeting senior citizens are likely to have limited success. Principles of the active ageing effective strategy shall be based on the social partnership of a citizen and society. In this partnership the role of the state is to create conditions, as well as to facilitate and motivate citizens and, if necessary, to provide high-quality social protection to vulnerable groups as long as possible. As for society, the objective of the policy is to recognize the connection that links together all relevant areas of politics: employment, health, social protection, social integration, transport, and education [1].

### **3. Competitiveness enhancement programs**

To overcome the negative trend, a number of countries invest in vocational training (for example, enhancement of technological skills so that citizens can adapt faster under innovative conditions) and additional professional education for senior citizens. For example, a special government program was designed to increase competitive advantage in the labour market for pensioners. With regard to the needs of employers, the period preceding pension increased up to five years (Art. 5 of Employment Law No. 1032-1 of April 19, 1991) is currently implemented in Russia.

In the EU countries the process of intensive development of a new model of labour and employment of elderly people in connection with the digital economy was launched long ago. For example, in Taiwan, a social program aimed at education and retraining with a variety of e-learning courses is being implemented in order to ensure education of people aged over 55 [2]. Another example is the programme implemented in the Tomsk region. 358 persons were retrained in 2019. Up to 68,500 rubles were spent to retrain a person, the duration of training was from 16 to 500 hours, but not more than three months, a scholarship in the amount of the minimum monthly wage (11,280 rubles) increased by the district coefficient was paid.

The social technologies to enhance the process of interaction of the elderly with society and digital technologies are as follows:

- specialized programs for working with the media to create a new image of an elderly person and demonstrate the diversity of life positions and ways of personal fulfilment;
- social support in solving problems faced by elderly, which is provided not only by state the bodies, but also volunteer organisations;

- implementing intergenerational interactions to ensure cooperation and public consent by expanding the range of free courses (computer literacy);
- monitoring the supply and demand for labour, which is focused on the age category of citizens.

#### 4. Conclusion

Today, the development of society is impossible without development of digital economy. Digital technologies are one of the main factors to increase and support the activity of elderly people at the required level. The development and training are the main tools to ensure the active participation of the elderly people in a social life. It allows them saving, developing and realizing their competencies in professional and creative activities.

As a result of the study, social technologies that should be provided by local authorities were recommended. These technologies will solve the main problems of computer literacy and adaptation of elderly people to digital technologies.

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