

Education and Labour

Transition to the Lifelong Learning Concept

The National Research University Higher School of Economics Institute for Statistical Studies and Economics of Knowledge (HSE ISSEK) presents the results of a human capital trends study. The study methodology included big data mining using the HSE ISSEK-developed [iFORA system](#), expert sessions, and a Delphi survey of more than 400 leading international and Russian scientists specialising in human capital.

The project is being implemented by the World-Class Human Capital Multidisciplinary Research Centre and the UNESCO Futures Studies Chair (UNESCO Futures Literacy Chairs network). A complete list of trends is available in a unique open-access database at https://ncmu.hse.ru/chelpoten_trends.

The Trend's Structure

- **Increased investments in education and retraining**

Today's job market is rapidly changing with the introduction of new technologies. By 2030, technological development will transform more than 1 billion jobs worldwide. The digitalisation of education, the transition to the lifelong learning concept, and the growth of the retraining industry are key factors of people's successful adaptation to the labour market under new conditions and maintaining competitiveness. The implementation of the lifelong education concept includes both the provision of additional education and opportunities to develop various skills from early childhood and continuous training for adults. In Russia, only 15% of the working-age population and 1% of pensioners are enrolled in educational programmes, while in developed countries this figure is 40% and 5%, respectively.

Over the next five years, 40% of the currently employed workers' core skills are expected to change. In 20 years' time, 90% of jobs will require basic digital skills. This transformation will affect not only traditional digital areas such as cybersecurity and big data, but other fields including ethics, legal regulation, and personal data protection.

Education is one of the largest industries: it accounts for more than 6% of global GDP. By 2025 the global education market may reach 7.3 trillion USD. At the same time this sector significantly lags behind labour market demand generated by the digital transformation. One of the reasons is insufficient funding: only 4% of the budget is allocated for the development of digital technologies. By 2025 global expenditures on the digitalisation of education

- **Educational programmes not matching labour market demand**

are expected to reach about 404 billion USD (about 5% of total expenditures).

The flexibility and sustainability of educational systems are of paramount importance, along with the increased accessibility of education, through the active development of digital platforms to provide high-quality modern vocational training and making available continuous on-the-job training. This is a key factor of the post-COVID-19 recovery and for creating more inclusive and resilient economies.

In 2020 the World Economic Forum launched the Reskilling Revolution programme which aims to provide relevant education, necessary skills, and jobs to 1 billion people by 2030. In its first year the platform's initiatives provided opportunities to quickly reskill, upgrade, and move into new jobs to more than 50 million people around the world.

By 2030 the classic model of obtaining higher education and then working in the acquired profession throughout one's life will lose relevance. After 2025 the number of students choosing traditional university education is expected to decrease due to the emergence of alternative ways of accessing the necessary knowledge and practical skills. For example, Apple, Google, IBM, and Facebook have already revised their requirements for job candidates, eliminating the need to have a higher education diploma for applicants for many vacancies. On-the-job training, which provides an opportunity to gain relevant practical experience, will have priority over traditional educational paths.

- **Different perceptions of careers**

Key Estimates

Almost **2/3** of children

who entered school in 2016 will work in professions that do not yet exist

50%

of workers will need retraining in 2025

The Trend's Characteristics



Impact on human capital¹

1

2

3



Weak signal²

Digitalisation of education



Strongest manifestation period

2026-2030



Wild card³

Use of brain implants fully automating the education process



Effect of COVID-19 pandemic

Strengthened the trend



Consequences of the wild card event actually taking place

Increased inequality caused by insufficient access to new educational technologies



Presence in Russia

Comparable with the global level

¹ 1 – weak, 2 – medium, 3 – strong.

² Weak signals are insignificant (rarely mentioned or discussed) events which indicate the trend may radically change in the future.

³ Wild cards³ are difficult-to-predict events which, if they do happen, can significantly affect the trend.

Drivers and Barriers



Drivers

- Technological progress, development of digital technologies
- Automation of work processes
- Increased demand for new competencies due to the rapid adoption of new technologies in all areas of life
- Introduction of new educational practices based on information technology



Barriers

- Low digital literacy of the public
- Lack of public (targeted government programmes) and/or employers' support

Trend Effects



Opportunities

- Emergence of more flexible educational systems for faster adaptation to changing labour market demand
- Human capital development



Threats

- Unreceptiveness to changes in educational systems
- Lack of effective corporate training programmes