Transforming enterprise networks: building a wellness human being ecosystem

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Abstract. The transformation of enterprises' network connections in the epoch of changes is revealed in the article, the formation of Human Welfare EcoSystem as well as the provision of innovative economic growth based on the work of industrial cluster and internal connections between enterprises is substantiated. The authors reveal the relationship between the innovative growth of the economy and the functioning of clusters in the ecosystem. The article presents the conclusion that the ecosystem is a set of interrelated and interdependent components of the environment, agglomerations, industrial and agricultural firms connected by the Internet things, which aims to organize a prosperous, healthy and happy society.

1. Introduction

Before the rapid development of digital technologies, network communications of enterprises were aimed at creating a unified complex dynamic economic system with sustainable production, transport, financial, technical, technological and cultural links in geographically localized growth points [1]. This process of production location based on synergy and network effects is commonly referred to as agglomeration, one of the stages of urbanization. Digitalization and digital transformation have led to the fact that the network links of enterprises have lost their link to territorial location. Borders, including between enterprises, territories and states, are no longer essential to the organization of the reproduction process [2]. This is the essence of the era of change for network connections. Borders have ceased to be barriers to business development. The importance of national boundaries is no longer key to the development of linkages. As a result of the digitalization of traditional industries and agro agglomerations, as well as the digital transformation of cities and new high-tech industries, with the strengthening of network connections have formed a single ecosystem of interconnected and interdependent industries, works, services, living conditions and in general the entire human world.

2. Materials and methods

In the process of research, the authors relied on the main achievements of institutional theory, the theory of production location, digitalization and digital transformation. General scientific methods of scientific cognition were used: analysis, synthesis, comparison, as well as special methods of economic science, such as institutional analysis and modelling [3]. In recent years, significant progress has been made in the study of enterprise networking. Existing research methods can be improved by developing common definitions, key variables used in this area [4],[5]. Scientists have not reached consensus on a number of critical issues regarding the value and functioning of enterprise networking. While some studies showed that firms were increasing innovation activity by placing R&D in
specialized clusters, others argued that adverse selection worked within clusters, so that working within clusters harmed the most innovative firms and were the least beneficial. But there is still no clear answer as to whether changes in innovation at the enterprise level within clusters are linked to network linkages or agglomeration. Moreover, it is clear that the declining importance of boundaries as a barrier to business entails the territorial dissociation of production through network linkages, which means that cluster theory is somewhat outdated due to the digitalization and digital transformation of the reproduction process [6].

3. Results
The new format of the cluster organization - Human well-being EcoSystem - is currently being discussed in science. This ecosystem is a set of interrelated and interdependent components of the environment, agglomerations, industrial and agricultural firms connected by the Internet of things, which aims to organize a prosperous, healthy and happy society. In the Human well-being EcoSystem, interconnections can be formed not only through the Internet of Things, but also by any other means of communication and communication [7].

![Diagram of Human well-being EcoSystem](image)

**Figure 1.** Human well-being EcoSystem.

The first type of agglomeration is agro-regions or agro agglomerations. This agglomeration accommodates traditional agricultural production, handicrafts, traditional employment of special ethnic groups (e.g., reindeer herding in the Far North), fisheries and forestry enterprises. They are more difficult to transform their production processes due to their closer interaction with nature, so here we see only the digitalization of production processes, i.e. the transformation of production processes into a digital environment without changing the essence of the process [8-9]. However, the digitalization of such agglomerations leads to their inclusion in a single ecosystem of wellness humanity being [10].

The second type of agglomeration is represented by Brownfield Parks, as it is here that traditional industrial productions are concentrated, processes in which are either already digitalized or in the process of digitalization [11]. It is important to note that the size of these industries, their nature is such that they are not ready for digital transformation, that is, building business processes anew on the basis of digital technology. Nevertheless, they are included in a single ecosystem of wellness human being both through the production of means of production and through the production of means of
consumption. Brownfield parks also have an important role to play in creating or maintaining jobs [12-13].

Robotization here is not as extensive as in the next agglomeration segment, Greenfield Industrial parks. Here, all production processes are redesigned through digital transformation and higher efficiency is achieved through robotics [14]. Most of these parks are focused on the production of means of production or production of means of consumption of complex design (cars, computer equipment, complex household appliances, etc.). There are significantly fewer jobs, but due to increased productivity and resource efficiency, such parks are included in the wellness human being ecosystem [15-16].

There are five major markets for industrial robots: China, Japan, the United States, the Republic of Korea, and Germany. These countries account for 74% of global robot installations.

China has been the world’s largest industrial robot market since 2013 and accounted for 36% of total installations in 2017 and 2018. In 2018, 154,032 units were installed. This is 1% less than in 2017 (156,176 units) but still more than the number of robots installed in Europe and the Americas combined (130,772 units).

In 2018, robot installations in Japan increased by 21% to 55,240 units (a new peak). The average annual growth rate of 17% since 2013 is remarkable for a country which already has a high level of automation in industrial production. For the eighth year in a row, robot installations in the United States reached a new peak level (40,373 units; +22%). Since 2010, the automation of production processes in all the country’s manufacturing industries has been the ongoing trend. Regarding annual installations, the United States took third position from the Republic of Korea in 2018. In the Republic of Korea, annual robot installations have been declining since they reached a peak level of 41,373 units in 2016. In 2018, 37,807 units (-5%) were installed. Installation figures for this country strongly depend on the electronics industry, which had a tough year in 2018. Nevertheless, installations have increased by 12% on average per year since 2013. Germany is the fifth-largest robot market in the world. In 2018, the number of robots installed surged by 26% to a new peak of 26,723 units. Installation figures in this country are mainly driven by the automotive industry [17].

Figure 2. Annual installations of industrial robots in global world [17].

Cities and towns include all firms and industries by territory. It provides comfortable accommodation and activities for the largest groups of the population. The general urban agglomerations have a wide range of economic activities. Bigger cities, especially the capitals, have, among other things, political and market power and are therefore attractive sites for the headquarters
of large corporations. It is for the same reason that high technology is concentrated here, allowing
digital transformation of virtually any process to form an ecosystem of wellness humanity being [18-
19].

The progressive development of all aspects of human well-being, including work, residence, place
of learning, cultural goods, etc., with the advent of digital technology, is gaining new impetus to better
meet human needs and improve the quality of life. Here arises a dual situation, where digitalization
leads to access to personal data and consumer preferences of the state and other interested parties,
which may lead to digital totalitarianism [20], either society will move towards an ecosystem of
human well-being in which poverty, most diseases, discomfort will be eliminated and humanity will
be able to realize the highest level of human needs by Maslow - in aesthetic and self-actualization
needs. [21] The second option, of course, seems to be the most preferable, since here the human dream
of a free life and creativity, to which he has always aspired, is realized. The ecosystem model we
propose will help to create an environment where aesthetic and self-actualization needs can be met not
by the wealthiest and most influential individuals, but by everyone. [22] This 'wealth inflation' may
undermine the power of those who have succeeded in meeting higher needs, but it is a political issue
that must go down in history.

4. Summary

Forming an ecosystem of wellness humanity as a result of the changes taking place seems to be the
best outcome as digital technologies come into our lives [23]. Any new technology can be used for
both human well-being and human perdition. Nuclear fusion can provide energy, or it can destroy
huge masses of people. Similarly, digital technology can lead to digital totalitarianism, where under
the guise of achieving security, every human step will be strictly controlled by the authorities, up to
the utopia of J Orwell "1984" [24]. Either digital technology will simplify many production processes
and make people's lives more favorable by transferring the dirtiest production and work to robots and
freeing people for creativity and a pleasant life.

5. References

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