

Economic benefits of using digital technologies in the education process

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Abstract: The aim of the contribution is to describe the economic benefits of implementing digital technologies within online educational processes. In essence, these are modern technologies that are used for educational programs in non-profit organizations with the subsequent evaluation of human capital for the all-round support of sustainability in the region of interest with appropriate global reflection. For these reasons, the contribution is processed with an interdisciplinary approach of social sciences – economics, sociology, social work and global studies.

Keywords: online educational processes, human capital, supporting the sustainability of the region

JEL Classification: A13; F01; I23

1. Introduction

The article points out the importance of the implementation of digital technologies in educational programs to support investment in human resources with appropriate reflection on sustainable development. For these reasons, he deals with the current issue of the implementation of digital technologies in versatile areas of educational programs as part of supporting the economic and social development of the regions of interest of the Faculty of Theology of the University of South Bohemia in České Budějovice, which is the African country of Zambia. The choice of the mentioned project is the result of the consensus of the faculty with the Charity of the Czech Republic, which considers one of the difficulties in working with the local population of Zambia to be the considerable burden of access to education, as many children and adults could not attend school. They are very stigmatized either by the public or professional society. In this context, within the framework of mutual reciprocity, the aim is to support the projects of volunteers who come from among the people of Zambia and want to be actively involved in aid. This is a very beneficial help, as the locals know the history, culture and customs of the country. Thanks to the art of empathizing with the situation, they are perfect in taking care of clients and know their needs. The aid mentioned makes sense in supporting sustainability, which is an indispensable indicator for the quality of projects.

Based on experience from the covid-19 pandemic period, this is an effective use with appropriate expected benefits for the future. These are investments in human resources with appropriate evaluation of the quantitative and qualitative dimensions of human capital. As a result, potential risks in the economic, social and ecological areas can be expected to be reduced in the direct context of supporting sustainable development in integrally linked global dimensions.

The EU political initiative entitled Digital Education Action Plan (2021-2027) sets, among other things, a common vision of accessible digital education in EU countries. Its aim is to support systems of education and vocational training corresponding to the degree of digitization. The European Commission and the EU member states strive to fulfill their common vision of the European educational space also by focusing their efforts on the issue of digital education (Education, 2022).

The promotion of digital competences should be integrated into the education process as a cross-cutting topic. Provision of basic digital knowledge and competences for adult education should also be aimed at those who have already

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left formal education and training systems. This is the only way to succeed in the professional life, to succeed in the labor market in the age of modern technologies.

2. Processing methods and approaches

For the study of the observed problems, the genetic method of analysis prevails, with the help of which the mentioned issue can be clarified within the dimension of social work and social policy of the state in a global dimension. Other supporting methods are comparison (finding the similarities and differences of the monitored phenomena) and synthesis (to reveal the structure, mutual processes and relationships of individual aspects of the studied phenomenon).

The starting point of the monitored research and the focus of the article requires processing with an interdisciplinary approach of the social sciences involved in the issue (especially economics, sociology, global studies, pedagogy, social work...).

For analysis, we used data from 29 countries, so 27 countries of the EU added Norway and Iceland. The year of research is 2021 due to the fact that the latest data on digital skills is 2021. We used GDP per capita (at current prices in EUR), greenhouse gas emissions (air pollutants and greenhouse gases in kilograms per capita) and digital skills of the population (percentage of individuals with basic or above basic overall digital skills).

The assessment of that relationship was based on hypothesis testing:

Hypothesis A

H0 (null hypothesis): there is no relationship between digital skills and greenhouse gas emissions.

H1 (alternative hypothesis): There is a positive relationship between digital skills and greenhouse gas emissions.

Hypothesis B:

H0 (null hypothesis): There is no relationship between GDP per capita and digital skills

H1 (alternative hypothesis): There is a positive relationship between GDP per capita and digital skills

3. Research results

3.1 Initial philosophy to the issue

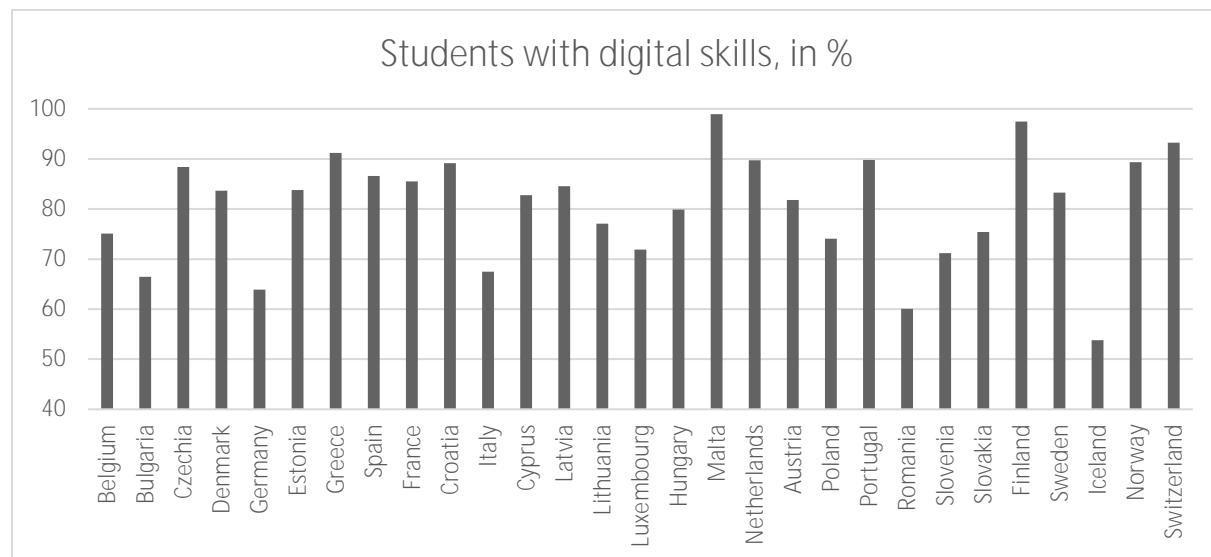
Any dynamic of social development necessarily leads to the dynamics of the economy. In the case of the creation and development of the information society, the influence on the global economy is most often discussed, which is understood both as a global scope in terms of geography and in the sense of impact on almost all economic sectors. Changes in the economy due to the development of the information society are often referred to as the new economy, global economy, knowledge-based, informational or digital economy. It is precisely the new manifestations of this economy that cause, among other things, the creation and deepening of digital divides. Economic changes are closely related to the development of technology. Current economies on their productivity and competitiveness primarily on the basis of information and knowledge. Opinions differ significantly on the use of the term new economy, but in any case, it collectively refers to all the changes in the economy that have occurred thanks to the development of information technologies in the last few decades. They are said to be applied in traditional ways.

As a result of the above-mentioned processes, the world is changing right in front of our eyes, its area is "shrinking" with exaggeration, and the passage of time is accelerating due to the development of information technologies. Space-time compression of the planets thus means its "shrinking". No nation state is any longer an independent unit, but is constantly influenced politically, environmentally, culturally, economically (Bauman, 1999). It is not a controlled project, but a process that takes place independently and spontaneously, it cannot be denied or fought against, but it can be worked with so that it develops for the benefit of the world's population, and not against it. However, a highly integrated global society becomes very fragile.

By its very nature, economics tends to simplify the world around us. Convert ideally into countable commodities that can be easily included in a pre-prepared calculus (Johanisová, 2014). To this end, it is helped by money, an invention that is able to convert into numerical values non-convertible, among other renewable and non-renewable resources, nature, free time, the lives of animals, and even people (Schumacher, 1982). There is already a complete lack of "ethical sensors", as the system of a consumer society based on mass production and huge investments ultimately leads to a crisis with multiple attributes and the erosion of social capital. On the other hand, the smaller activities of a large number of people led to the mobilization of themselves, their thinking and their hands will lead to an improvement in general psychological

well-being (Schumacher, 1982). In this context, it can be pointed out that the standard division of economics into microeconomics and macroeconomics is completely inadequate (Sedláček, 2018). It completely neglects two areas that are crucial for the functioning of society in today's world. The first of them is the nano level, on the basis of which the individual and his narrow circle of people function, the second is the mega level, which, on the other hand, is global and in today's integrated world this sphere cannot be neglected anymore (Johanisová, 2015).

Figure 1



Source: Eurostat

The EU uses the Digital Skills Indicator 2.0 to assess digital skills. This indicator is based on selected activities that are connected to the use of the Internet or software. There are five areas: information and data literacy, communication and collaboration, digital content creation, security and problem solving. Graph 1 shows the share of students in EU countries who are engaged in these activities, the implementation of which is linked to the relevant digital skills.

3.2 The digital divide as a consequence of the manifestations of the global economy

The digital divide is connected with information science and the information society, which is characterized by the use of digital processing, storage and transmission of information (Zlatuška, 1998). In this context, one can point to the fact that "information processing is becoming a significant economic activity, which on the one hand permeates traditional economic or social activities and on the other hand creates completely new opportunities and activities that significantly influence the character of society". Information and communication technologies play a key role in the current information society (Güntherová, 2009). This means that without digital technologies, it is difficult to operate in the information society, and therefore to incorporate and gain access to important information and knowledge. In the new information economy, in which information plays a decisive role, it is therefore impossible to ignore the problem of inequality in access to information technology. It is important to realize that access to digital technologies can lead to increased jobs, improved medical services and serves the overall war on poverty. Bridging the digital divide alone is not self-saving for developing countries, but it is an integral part of solving the whole problem.

According to the OECD (Organization for Economic Co-operation and Development), today's economy is increasingly becoming an Internet economy. The Internet influences today's society, enabling communication, innovation and economic growth. The global network is starting to play an increasingly important role in healthcare, education, and especially in the provision of commercial and government services. OECD countries want to promote the use of the Internet and thus contribute to improving the living standards of the population. The Internet enables the expansion of markets and the customization of products and services. For users, this means in practice that, thanks to better access to information, they can choose between different offers and choose the most advantageous one. This affects the prices of goods, promotes competition and changes the relationship between buyer and seller. The Internet thus enables the provision of innovative services and the development of new business models (Šetek, 2018).

Based on the facts cited above, the term digital divide refers to the widening differences between winners and losers in the information society. These are both questions of access to new information technologies, as well as a disparity in

decision-making powers and control over the direction of new investments, the development of new applications or the creation of content. "Such a division can exist between men and women, urban and rural residents, between more educated and less educated people, between the rich and the poor, between the healthy and the disabled, and on a global scale between developed and underdeveloped countries" (Sýkora, 2002). We understand the digital divide as a multidimensional phenomenon that can be distinguished in 3 aspects. The global gap refers mainly to differences between regions and countries in access to telecommunications infrastructure and in their influence on shaping the political environment. Above all, the countries of the economic South have limited opportunities to participate in the mechanisms of the information economy and are further economically disadvantaged as a result of the international division of labor. The second aspect is the social gap that exists between those who have information and those who do not have access to it, the last of the gaps is democratic – it describes the difference between those who have access to resources and can thus influence public life and those who they cannot (Norris, 2000).

The term digital divide can be dated from the last decade of the 20th century as the disproportion between those who have access to computers and the Internet and those who do not. Access means the physical possibility to use a personal computer connected to the Internet. Statistics published in the 1980s revealed that the distribution of computer technology and engineering is uneven and this fact cannot be ignored (Norris, 2000). At the time, computers were accessible in scientific circles and universities in the Western world. With the advent of the World Wide Web and new technologies, computers have gained mass influence, and the problem of a segment of the population that does not have access has become an issue for companies around the world. The digital divide still exists and is even increasing in some parts of the planet, exemplified above all by the gap between developed and developing countries. The gap exists even in technically and technologically developed societies, where the physical access gap is no longer widening, but on the contrary, it is deepening for a third to a quarter of the population. It is mainly about skills and experience in using computers. In developed countries, this is not primarily a technological problem, but rather a social and political problem. Digital technologies intensify inequalities (social, educational, age, gender and ethnic) and new inequalities appear with corresponding negative effects for the national economy.

3.3 The principle of subsidiarity to reduce the digital divide – an undesirable phenomenon of the global economy

The concentration of capital and the development of industrial technologies have become the "vanguard" of the accelerating dynamics of modern societies and have given it the appropriate qualitative direction. Economics, with its knowledge, participated most prominently among the social sciences in this "construction of a new world". The idea of decentralization movements in society towards the realization of subsidiarity is of interest to the social sciences, which as interested disciplines with different paradigms of implicit anthropological and value ideas are based on different contexts of social and worldview dimensions (Begg, 2008). Therefore, they will not be completely united regarding the assessment of the relevance of the principle of subsidiarity in its practical application. However, the principle of subsidiarity can help the social sciences, as a distinct social science discipline striving for at least partial independence from specific historically, contextually and politically conditioned social policies, to better formulate relations with the least possible dependence between the state and comprehensive care for the quality of life of all members of society. Creating a bond of social interaction not on general philosophical and moral principles (freedom, equality, justice, solidarity, subsidiarity), but on specific doctrines of social justice or human rights formulated in political processes can create a loss of autonomy in favor of service to man within the framework of quality of life care and growing dependence on specific historically, socially and ideologically formulated doctrines and policies. Many newly defined human rights, especially of a social and economic nature, contained in the documents to which the social sciences oriented towards human resources refer, in their essence have a relative character deriving from the consensus in society and from its economic possibilities, so they cannot be in a strict word meaning understood as temporally or regionally universal (Dumont, & Teller, 2007).

However, it is not clear from the facts mentioned whether the subject of the application of well-being, justice and human rights is human freedom and autonomy combined with responsibility, or, on the contrary, rather the realization of the ideals of a concrete idea about the material quality of human life. The reference to increasing "well-being" also points to the fact that ethics in the care of human resources is, in a sense, captive to utilitarian concepts, not ideals based on unquestionable ethical criteria. This problem opens up a frequently debated issue in the field of political philosophy regarding the nature of human freedom and autonomy. While the principle of subsidiarity is mainly intended to protect negatively defined freedom (elimination of oppression by other people and the state) and to leave the widest possible space for the unmanipulated activity of the individual, positively defined freedom (by enabling the realization of human wishes and human happiness) arising from utilitarian liberalism understands state power as necessary agent in the

application of a concretely conceived particular ideal of human life and the idea that the essence of freedom lies in its realization, not in preserving the autonomy of the individual (Bakota, 2016).

The principle of subsidiarity is understood in the modern type of society as a principle integrating personal responsibility with solidarity. It is based on the approach to man as an individual with unique abilities, characteristics, dispositions, which the individual, in the moral sense of the word, is obliged to use for the benefit and social security of himself and his neighbors. This principle also respects the fact that people (individuals, social groups, nations...) do not live in isolation. The principle of subsidiarity emphasizes the importance and necessity of the activities of certain communities to ensure social security and interest, the obligation of the state to support such activities. Subsidiarity is based on a society in which responsibilities are conditioned by relationships between people. The idea of subsidiarity, used practically as a synonym for national sovereignty, was introduced to counter this trend.

Subsidiarity, conceived in the context of the principles, always also means the right of the subject of interest to help from the surrounding community and the right of a smaller community to help from a larger community, this help should be aimed at self-help. This principle also respects the fact that people do not live in isolation. The principle of subsidiarity emphasizes the importance and necessity of the activities of certain communities to ensure social security and interest, the obligation of the state to support such activities. Fulfilling the principle of subsidiarity presupposes a certain education of the population to take responsibility for themselves, including the real social situation, i.e. space for one's own social action. Subsidiarity interpreted in connection with the principles always also means the right to help from the surrounding community and the right of a smaller community to help from a larger community, this help should be directed towards self-help (McKinlay, 1999). This can be implemented mainly through education, i.e. investments in human capital. An integral part of these investments are the implementation of digital technologies within educational programs, which are the goal of sustainable development implemented through development aid to economies in the regions of interest.

3.4 Digitization and education - the phenomenon of "continuous vessels" of postmodern society

Since the start of the 21st century, the global growth of digital technologies in the field of communication has been accelerating in the world economy. As a result, the process of the digital revolution has affected almost all areas of society and has brought potential for many sectors, such as the education policy of the state. This trend gained particular importance with the advent of Industry 4.0 technologies, linked in parallel with Education 4.0. For this reason, the revitalization of the education system has also become the goal of many African states. In order to achieve appropriate positive changes, the Millennium Development Goals were set at the very beginning of the 21st century, which became a binding subject of resolution by the United Nations ((Fall, 2007). The Millennium Development Goals were to be fulfilled by 2015 and defined the main problems plaguing society. the individual parts were specifically concerned with the effort to eliminate extreme poverty and hunger. Furthermore, they sought the possibility of equal access to education for girls and boys from all over the world, regardless of gender, which was followed by the third goal, namely the promotion of equality between men and women. For many countries, thus, the aforementioned goals became a huge challenge, especially with the onset of digitization in the field of education.

There are several ways in which digital technologies can act as a catalyst for the development of education in a strategic dimension. It is about providing tools that teachers use to improve teaching and enabling students to access electronic media. At the same time, digital technologies can reduce inequality, especially between urban and rural communities (Unwin, 2009). Based on some empirical researchers, digital technologies in the educational process can serve to restructure the learning system, diversify teaching methods and procedures, involve all stakeholders in education and quickly adapt to changes in society, increase the effectiveness and productivity of learning, and lead to transformations in the educational and social system (Abrahامyan, 2022). In line with the implementation of digital technologies, self-directed learning can be encouraged, learners can be given immediate feedback and information can be easily accessed, providing practice for further education or future employment (Reeve & Lee, 2014). It is also necessary to train educators to work with digital tools so that they can use technology in teaching. For the possible inclusion of digital technologies in the education policy of the state, it is necessary to consider the overall allocation of capital, to ensure infrastructure and the appropriate alignment between these investments and costs for supporting educators in the use of new technologies (Enyedy & Stevens, 2014). Projects focused on the implementation process of digital technologies thus represent a response to challenges in the field of education, the emergence of new forms of partnership that bring together private business entities, multinational companies, state administration bodies and municipalities, universities and the non-

The results

Assessment of the Results of the Analysis of the Impact of Digital Skills on GDP per Capita and Greenhouse Gas Emissions in European Countries in 2021

In this analysis, we focused on the relationship between three key variables: GDP per capita (at current prices in EUR), greenhouse gases emissions (air pollutants and greenhouse gases in kilograms per capita) and digital skills of the population (percentage of individuals with basic or above basic overall digital skills) in European countries, including Norway and Iceland. Our analysis was based on the use of multiple regression and an examination of 2021 data obtained from Eurostat. Let us now imagine and evaluate the results of the four different models and discuss possible future developments.

Hypothesis A: Impact of Digital Skills on GDP per Capita

Our first model was an analysis of the impact of digital skills on GDP per capita. The model showed an R² value of 0.37, suggesting that 37% of the variability in GDP per capita in European countries in 2021 can be explained by the digital skills of the population. The p-value was very low (0.000261), indicating a statistically significant relationship between the two variables.

This result suggests that improving the digital skills of the population can positively affect economic development (GDP per capita) in these countries. Given the rapidly developing digital economy, it would be advisable to promote the education and development of the digital skills of the population, which could contribute to economic growth.

Hypothesis B: Impact of Digital Skills on Greenhouse Gases Emissions

The relationship between greenhouse gas emissions and digital skills. On the other hand, we tried to examine whether digital skills have an impact on GHG emissions. However, the results were disappointing. The R² value was only 0.16 and the p-value was 0.0345. Moreover, and this is a major problem, the value of the b coefficient (of the regression model) was positive, which means that our second hypothesis that digital skills should reduce GHG emissions was not confirmed. On the contrary, there seems to be a positive relationship between digital skills and GHG emissions. This may be due to the fact that modern technology and the digital age may increase energy consumption and production of electronic devices, leading to increased emissions.

Conclusion and future developments:

Our analysis shows that the digital skills of the population have a positive impact on GDP per capita, which could suggest that investing in digital education and technological development is beneficial for economic growth. On the other hand, the results on greenhouse gas emissions are surprising and seem to contradict our initial assumption. It may be worthwhile to conduct further analysis and research to better understand this relationship.

Future developments should include the following steps:

- **Extended analysis:** We can conduct further analyses with respect to other variables such as renewable energy use, the industrial sector, or government policies related to digital education and the environment.
- **In-depth research:** Gaining a deeper understanding of the relationship between digital skills and greenhouse gas emissions requires interdisciplinary research involving economists, ecologists and information technology experts.
- **Policy decisions:** The results of our analysis can have important implications for policy decisions. We need to consider how digital skills can be promoted to have a positive impact on the economy while minimising the negative impact on the environment.

Overall, we have gained interesting insights into the relationship between digital skills, GDP and GHG emissions, but it is clear that this complex relationship requires further investigation and analysis.

Table 2 Results of analysis from Statistica software

		Regression Summary for Dependent Variable: GDP per capita (2021) R= ,62858060 R2= ,39511357 Adjusted R2= ,37271036 F(1,27)=17,636 p<,00026 Std.Error of estimate: 19238,					
N=29		b*	Std.Err. of b*	b	Std.Err. of b	t(27)	p-value
Intercept				-30823,6	16400,99	-1,87937	0,07102
digital skillsin % of all individuals(2021)		0,62858	0,149677	1160,7	276,37	4,19958	0,00026

		Regression Summary for Dependent Variable: GHG per capita (2021) R= ,39386513 R2= ,15512974 Adjusted R2= ,12383825 F(1,27)=4,9576 p<,03451 Std. Error of estimate: 2538,9					
		b*	Std.Err. of b*	b	Std.Err. of b	t(27)	p-value
N=29							
Intercept				2707,527	2164,493	1,250883	0,221705
digital skills in % of all individuals(2021)		0,393865	0,176894	81,212	36,474	2,226560	0,034512

Source: the author's own editing based on Eurostat data

3.5 Reflecting on the digital divide in the African region – the example of the Democratic Republic of Congo

Helping to overcome the global problem of the digital divide in Africa is in line with the United Nations Millennium Development Goals. The Czech Republic, as a member of the European Union and the international community, also actively accepts its share of responsibility and solidarity in solving global problems. As a result of the aforementioned help from the international community, information technology is beginning to dramatically change the lives of African residents. However, the digital divide between Africa and the developed world is still significant. The situation is improving year by year, but Africa is still far behind. Therefore, a significant part of the population of the black continent still does not have sufficient access to telecommunications and information technologies. Africa is also crippling disease, war and poverty. Compared to these problems, the digital divide may seem like a secondary issue, but in reality it is another big problem of the black continent. Africa is cut off from world markets due to poor access to digital technologies, and suffers from an inability to meet demands for education and health care (Šetek & Petrách, 2017).

Digital technologies can help reduce expenditure, improve public services and integrate Africa into the global information society (Hagen, 2007). A typical example is the Democratic Republic of the Congo, which ranked among the economies with the lowest levels of Internet access in the world. This lack of internet access has had a significant impact on the educational opportunities available to Congolese people. This situation began to change with the implementation of satellite internet. As a result, Internet access has begun to be applied to schools and universities, allowing students to access educational resources and connect with their peers around the world (Fall, 2007). The impact of satellite internet on education in the Congo has been profound. Students now have access to online courses, research materials and educational videos. This allowed them to better understand the world around them and develop skills that will help them succeed in their future careers. In addition, satellite internet has allowed students to connect with their peers around the world. This allowed them to share ideas, collaborate on projects and better understand different cultures. This was particularly beneficial for students in rural areas who may not have previously had access to these resources. Overall, satellite internet has had a positive impact on education in the Congo. It allowed students to access educational resources and connect with their peers around the world, helping to improve their educational opportunities. This technology has the potential to revolutionize education in the Congo and help create a better future for the country. In this way, the necessary requirements of economic growth can be ensured in the context of the challenge of sustainable development and the corresponding growth of the all-round quality of life in society (Fall, 2007).

3.6 Pilot project for Zambia

Zambia ranks among the group of rapidly growing economic "lions of Africa", however, despite the growth of the gross domestic product after 2015, it is still among the least developed countries in the world. Economic growth is hindered by the low diversification of the economy, insufficient infrastructure, an insufficient tax system associated with high tax evasion and a lack of qualified labor. High income inequality and poverty, including its extreme form, persist in the country. Budgetary expenditures for healthcare, education or social protection are insufficient (Ministry of Foreign Affairs of the Czech Republic, 2018). Despite rapid population growth, Zambia is among the countries with the lowest

life expectancy. The lack of quality health care, including newborn and pediatric care, contributes to this, resulting in a high rate of maternal and infant mortality (Ministry of Foreign Affairs of the Czech Republic, 2018). Among other things, the Czech Republic's foreign development cooperation participates in state support, which develops in many areas that support the fulfillment of Zambia's development strategy - Zambia Vision 2030.

At the beginning of the third decade of the 21st century, Zambia is facing a widening digital divide, with access to technology and the internet increasingly limited to certain areas of the country. The difference is particularly noticeable in rural areas and smaller cities, where access to digital tools is limited or non-existent. This gap has significant implications for Zambia's economy, education and health care systems, as well as for its overall development. The lack of access to technology and internet in Zambia is twofold. First, the country lacks infrastructure and investment in telecommunications and technology networks. With only 28% of the population having access to the internet, Zambia lags behind other countries in the region when it comes to digital connectivity. Second, there is a lack of digital literacy in the country, especially in rural areas where access to digital devices and training is limited (Guyer et al., 2014).

A number of initiatives have been launched to bridge the digital divide in Zambia. The Zambian government has launched a program to expand access to technology in rural areas and has also launched initiatives to promote digital literacy. In addition, various NGOs, development organizations and private sector companies have launched projects to improve access to technology and digital skills in the country. The government has also adopted a number of policies to encourage investment in the country's digital infrastructure and technology networks. These policies include tax incentives for companies investing in the digital space, as well as a range of subsidies and grants for organizations working to bridge the digital divide. Despite these efforts, the digital divide in Zambia remains a challenge. If the country is to close the gap, it must continue to invest in its digital infrastructure and promote digital literacy. In addition, the government should continue to encourage the private sector to invest in the digital space, as well as encourage NGOs, development organizations and other stakeholders to contribute to bridging the divide. Zambia can thus begin to overcome the digital divide and open up new opportunities for its citizens, primarily through educational programs (Guyer et al., 2014).

The pilot program of the Faculty of Theology of the University of South Bohemia for the implementation of digital technologies in the framework of specialized educational programs for interest groups of the population of Zambia is also an appropriate contribution to the aforementioned call. The created teaching materials of specialized online courses thus contribute to the appropriate professional training of practical skills corresponding to the current standards of technological literacy in the required fields to support economic growth and sustainability in the region of interest.

4. Conclusion

The digital divide, monitored on a global scale, arises mainly between countries that are technologically developed, able to take advantage of new opportunities and are able to apply themselves in the field of digital technologies, and between countries that are not so developed. This division practically coincides with the division of states into developed and developing countries. As a result, less developed economies usually have a low level of telecommunications and transport infrastructure, dysfunctional education systems and an unstable political and economic environment. They are thus unable to participate in the mechanisms of the information economy and continue to lag behind and become relatively poor. The process of implementing digital technologies, primarily in the education system, can significantly contribute to changing this state. This process represents a significant synergistic effect with a positive influence on the sustainable development of not only the national but also the global economy (Sørensen & Christiansen, 2012). It is a certain result of the philosophy of subsidiarity and the virtue of hope "think locally, act globally". The pilot project of the Faculty of Theology is a clear proof of this.

According to the facts cited above, it is also logical that the standard division of economics into microeconomics and macroeconomics in accordance with the innovation process of digital technologies within the development of educational programs of regions of interest is completely insufficient. To monitor and evaluate the economic benefits in quantitative and qualitative dimensions within individual national economies, their external relations and the global space of the mentioned process, it is necessary to use alternative approaches.

References

- Abrahamyan, M. (2022). The role of digital media in education and the social transformation of the Democratic republic of the Gongo. *Journal of Technology & Information Education*, 14(1).
- Bakota, B. (2016). Local and regional government reform in Croatia: subsidiarity and innovation in an era of austerity. In *Fiscal austerity and innovation in local governance in Europe*, 113-128. Routledge.
- Bauman, Z. (1999). *In search of politics*. Stanford University Press.
- Begg, I. (2008). Subsidiarity in regional policy. In *Subsidiarity and Economic reform in Europe* (pp. 291-310). Berlin, Heidelberg: Springer Berlin Heidelberg.
- Enyedy, N. (2014). Personalized Instruction. *New Interest, Old Rhetoric, Limited Results, and the Need for a New*.
- Dumont, E., & Teller, J. (2007). Cultural diversity and subsidiarity: the case of cultural tourism in the European Union. In *Media and Cultural Policy in the European Union* (pp. 45-64). Brill.
- Education and Training Monitor 2022 [online]. <https://op.europa.eu/webpub/eac/education-and-training-monitor-2022/en/monitor-toolbox/digital-skills.html>.
- Enyedy, N., & Stevens, R. (2014). Analyzing collaboration. In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences*, 191–212. Cambridge University Press.
- Fall, B. (2007). ICT in Education in the Democratic Republic of Congo. In: Survey of ICT and Education in Africa, (Vol. 2): 53, Country Reports. Washington, DC: infoDev / World Bank.
- Guyer, A. E., Caouette, J. D., Lee, C. C., & Ruiz, S. K. (2014). Will they like me? Adolescents' emotional responses to peer evaluation. *International journal of behavioral development*, 38(2), 155-16.
- Gwang-Jo, K. (2009, November). ICT in education: issues & questions. In *Global Symposium on ICT in Education* (pp. 9-11).
- Hagen, E. (2007) *The Digital Divide in Africa*. Saarbrücken : VDM Verlag Dr. Mueller e.K.
- Johanisová, N. (2014). *Ekonomičtí disidenti: Kapitoly z historie alternativního ekonomického myšlení*. Volary: Stehlík.
- Johanisová, N. (2015). *Lokální a alternativní ekonomické systémy*. Permakultura cs.
- McKinlay, P. (1999, June). Globalisation, subsidiarity and enabling governance of our communities. In *address to the Community Government Forum*.
- Norris, P. (2000). *A Virtuous Circle: Political Communications in Post-Industrial Societies* (Communication, Society and Politics). Cambridge: Cambridge University.
- Reeves, M. (2014). *Border work: Spatial lives of the state in rural Central Asia*. Cornell University Press.
- Reeve, J., & Lee, W. (2014). Students' classroom engagement produces longitudinal changes in classroom motivation. *Journal of educational psychology*, 106(2), 527.
- Semenov, A. (2005). *Information and communication technologies in schools: a handbook for teachers*. Unesco.
- Sedláček, T. (2018). *Druhá derivace touhy I: Člověk duše-vnější - Úvahy nad (ne)končícími otázkami*. Praha: 65. pole.
- Sørensen, M., & Christiansen, A. (2012). *Ulrich Beck: An introduction to the theory of second modernity and the risk society*. Routledge.
- Statistics Eurostat. (n.d.). Retrieved 29 September 2023, from https://ec.europa.eu/eurostat/databrowser/view/ISOC_SK_DSKL_I21__custom_3160980.
- Statistics Eurostat. (n.d.). Retrieved 29 September 2023, from https://ec.europa.eu/eurostat/databrowser/view/ENV_AC_AINAH_R2__custom_7466915.
- Statistics Eurostat. (n.d.). Retrieved 29 September 2023, from <https://ec.europa.eu/eurostat/databrowser/view/> Gross domestic product at market prices
- Šetek, J. & Petrách F. (2017). *National Security in the Context of Global Economy*. 17th International Scientific Conference Globalization and Its Socio-Economic Consequences. Rajecké Teplice, Slovak republic. 2315-2323.
- Šetek, J. (2018). Economic Aspects of Cybercrime in the Global Dimension. 18th International Scientific Conference Globalization and Its Socio-Economic Consequences., 2336- 2343. Rajecké Teplice, Slovak Republic.
- Schumacher, E. F. (1982). *Small Is Beautiful: Economics as if People Mattered*. Oxford: Harper Perrenial.
- Unwin, P. T. H. (Ed.). (2009). *ICT4D: Information and communication technology for development*. Cambridge University Press.
- Zlatuška, J. Informační společnost [online]. In Zpravodaj ÚVT MU, 1998, roč. VIII, č. 4. [cit. 2010-04-30]. Available at <http://www.ics.muni.cz/>.
- Individuals' level of digital skills (from 2021 onwards) [ISOC_SK_DSKL_I21__custom_3160980].