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ARTIFICIAL INTELLIGENCE AND INDIVIDUAL'S EDUCATION VALUES: LATVIAN EXPERIENCE

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Abstract

The 21st century is a century characterised by rapid and diverse change that considerably affects both the technological and economical, and the social sphere, facilitating more diversity in human behaviours and choices in various fields of life. Spread of the artificial intelligence (AI) has become an important stimulus of these changes and creates new challenges related to the transformation of an individual's system of values, as people seek to adapt to the new technological environment and the possibilities and risks it creates. Development of AI creates possibilities to improve the quality of life while raising questions about human autonomy and social interaction, which in its turn impacts the hierarchy of human values. The system of individual's values is dynamic and subject to constant change, that is due to social, economic, technological, and cultural factors. *Research methods*. The article, based on the study of scientific literature and analysis of survey data, identifies factors that promotes value transformation in adults caused by the impact of AI. A comparative experiment was carried out based on the S. Schwarz's theories about individual's values before and after AI is being used in the everyday. The survey was organised in autumn 2024, and the respondents were adult inhabitants of Latvia aged 25–72, N=155 respondents. *Conclusions*. The theoretical study allowed to identify the factors that promote value transformation in adult education caused by the impact of AI. The survey presented the experience of Latvian inhabitants in relation to the impact AI has on their personal values. The data obtained shows that adults in Latvia actively integrate AI into their daily activities by using the possibilities it offers for study and work.

Keywords: *Artificial Intelligence, AI, value transformation, adult learning.*

1. Introduction

In recent years, the global advancement of AI has accelerated substantially. AI has become a global trend in education (Montenegro-Rueda et al., 2023), emulating human learning by continuously building upon acquired knowledge to solve problems independently.

The impact of AI on education, including lifelong learning, is complex and multifaceted. While AI holds immense potential (Ifenthaler et al., 2024) to enhance both access to and the quality of education, it is equally crucial to thoughtfully examine its ethical and social implications.

In today's digital age, AI has become a major player in shaping our daily lives and influencing human values. Research shows (Беликова, 2024) how integration fosters values related to rational thinking, innovation and personal growth. At the same time, there is a growing tendency to prioritise individual security and control, which can inadvertently undermine trust.

The aim of the study is to determine whether and how AI affects the transformation of educational values in adult learning.

2. Literature review

Researchers (Rokeach, 1973; Schwartz, 2017) have examined individual values in different ways and developed models to analyse their interdependencies and interactions. Today, research on individual values has been extensively carried out by Milton Rokeach and Shalom Schwartz.

Tonga (2016) defines values as factors that have a direct impact on human life and society in both positive and negative ways. Schwartz (2017) points out that values can be interpreted as motivating goals that drive individuals towards achieving an end result. Values are generally considered to be an individual's internal reality, reflected in their habits, behaviours, beliefs, expectations and relationships

(Schwartz, 2017). Values research is crucial for advancing the understanding of human behaviour, motivations, and beliefs. Its findings have broad applications across disciplines such as education, psychology, and political science.

Values are a relatively stable concept that retains its substantive integrity in the short term. However, it should be noted that these changes do not occur rapidly, but over a longer period of time – value transformation typically takes several decades (Foad, Maio & Hanel, 2020).

Researchers (Dempere et al., 2023) point out that education is one of the sectors where AI technologies can make the greatest changes. Research shows that this approach can significantly improve individual learning outcomes and provide educators with various benefits in their work (Mallik & Gangopadhyay, 2023). In line with the UNESCO report and the OECD review (OECD, 2021), AI has significant potential to improve education systems.

The importance of lifelong learning has increased significantly in a context of rapid technological development. AI plays a crucial role in adult and lifelong learning. Researchers (Palenski et al., 2024) point to the importance of lifelong learning to prepare the workforce for the future and promote responsible use of AI.

In light of the rapid changes that have unfolded in Latvia, Europe, and globally in recent years, examining the transformation of individuals' value systems in response to these shifts has become a particularly pertinent area of study. This is essential to better understand how individuals react to changes in their environment and how these reactions affect their behaviour, wellbeing and social interactions.

3. Methodology

Data collection took place from autumn 2024. The data were analysed using SPSS version 29.0, where descriptive statistics Kruskal-Wallis test and Kendall's correlation were used. The research included participants aged 25–72 years (M = 43.35, SD = 11.92). Total number of respondents 155. The survey covered the whole of the Republic of Latvia.

The Cronbach's alpha coefficient ($\alpha = 0.933$) indicates good internal consistency and reliability of the data. The results of the Kolmogorov-Smirnov test ($p<.05$) indicate that the results do not follow a normal distribution and non-normal tests will be used in the inferential statistics.

4. Research results

The research focused on the value system of the Latvian population based on Schwartz's values, analysing changes over time, especially in relation to the integration of AI into everyday life.

Table 1 illustrates the dynamics of changes in the respondents' value system. This comparison allowed us to identify which values have become more important and which have declined.

Table 1. Mean and standard deviation of Schwarz values for Latvian residents before and after wider use of AI in everyday life.

Value	N	Before AI		After AI	
		Mean	Standard deviation	Mean	Standard deviation
Security	155	8,07	2,475	8,12	2,445
Conformity	155	6,98	2,484	7,14	2,495
Tradition	155	7,07	2,475	7,11	2,591
Benevolence	155	7,81	2,264	7,76	2,371
Universalism	155	7,11	2,251	7,16	2,295
Self-direction	155	7,71	2,281	7,61	2,315
Stimulation	155	6,81	2,486	6,93	2,378
Hedonism	155	6,21	2,602	6,32	2,690
Achievement	155	6,98	2,507	7,00	2,675
Power	155	4,75	2,745	5,04	2,845
Valid N	155				

While the overall trend shows an increase in values after the introduction of AI, the study also reveals an interesting difference – the value of “Self-actualisation” has slightly decreased. Overall, the analysis of the data revealed small, but statistically significant differences in the respondents' value systems before and after the integration of AI into everyday life.

Using the Schwartz value model, a correlation analysis of individual values (see Table 2) was conducted after the introduction of artificial intelligence into daily processes to determine changes in people's priorities.

Table 2. Kendall rank correlation coefficients between Schwarz values for Latvian residents after wider use of AI in everyday life (from 2022).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Security	-									
(2) Conformity	,543**	-								
(3) Tradition	,488**	,593**	-							
(4) Benevolence	,575**	,543**	,721**	-						
(5) Universalism	,489**	,545**	,687**	,686**	-					
(6) Self-direction	,504**	,455**	,568**	,671**	,633**	-				
(7) Stimulation	,389**	,428**	,542**	,579**	,664**	,709**	-			
(8) Hedonism	,295**	,307**	,377**	,473**	,463**	,519**	,641**	-		
(9) Achievement	,357**	,375**	,496**	,530**	,552**	,637**	,711**	,600**	-	
(10) Power	,009	,155**	,147*	,122*	,293**	,199**	,367**	,414**	,385**	-

Source: Results of the empirical research. Note: * Correlation is significant at 0.05 level. ** Correlation is significant at 0.01

The correlation test results showed that the introduction of AI had an impact on the dynamics of values. The value of "stimulation" has become a more significant motivating factor, correlating strongly with both self-actualisation (r=.709; p=.001) and universalism (r=.664; p=.001). There is also a strong correlation between the values of "achievement" and "stimulation" (r=.711; p=.001).

5. Conclusions

The analysis of data from the Latvian population suggests that the introduction of AI has impacted the dynamics of value systems. The correlation test results showed that several factors correlate with each other and are indicative of the transformation of values today.

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