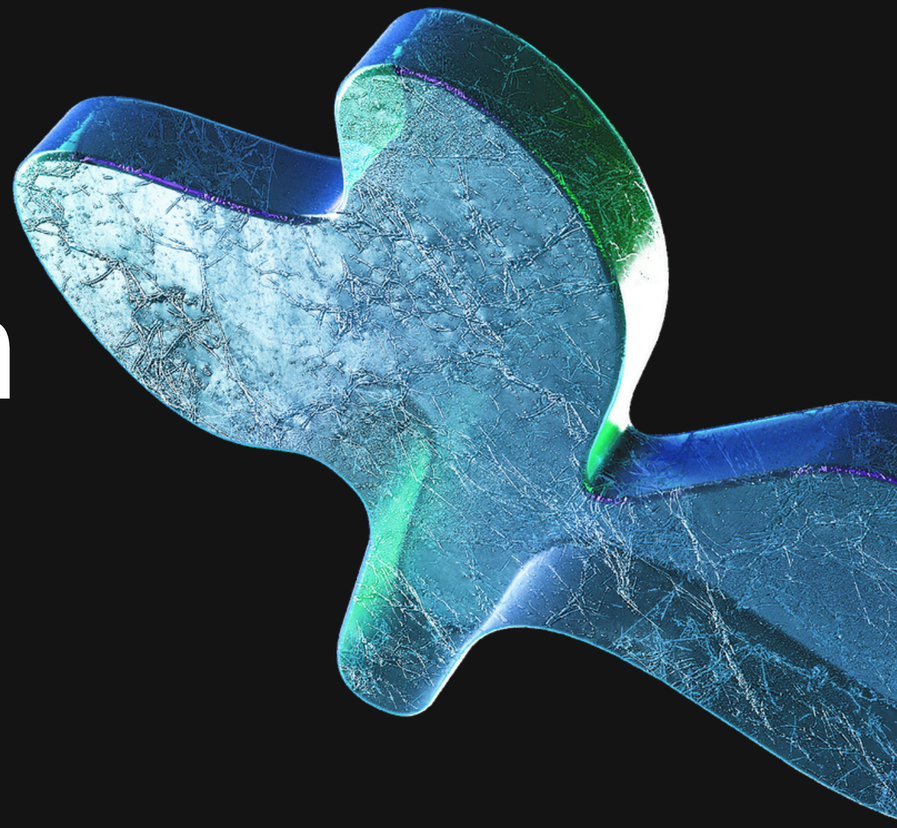


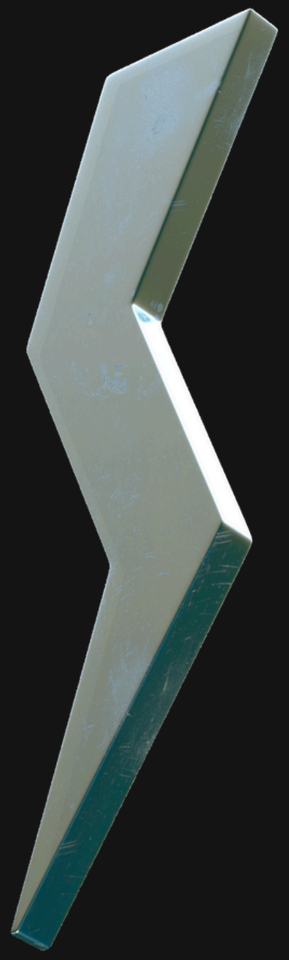
# AI shaping education and labour market

Julija Mironova
ISMA University of Applied Sciences

# WHY digital skills are important?

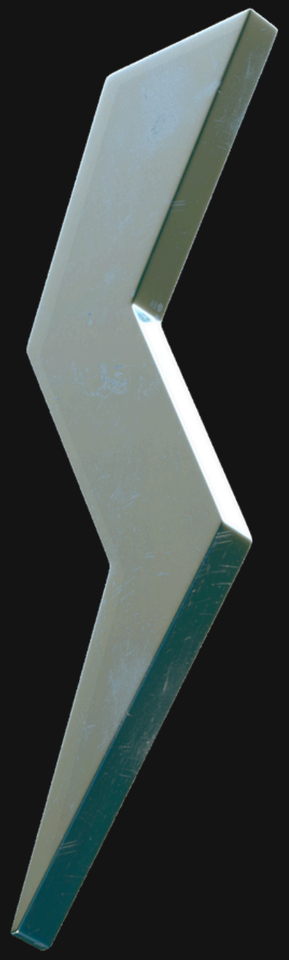
Digital skills are essential in teaching as they enable educators to **effectively integrate technology into lesson plans, engage students through multimedia resources**, and **prepare them for the digital demands of the modern world.**
Proficiency in digital tools also empowers teachers to personalize learning experiences, foster collaboration, and adapt to evolving educational technologies.

# Digital Skills

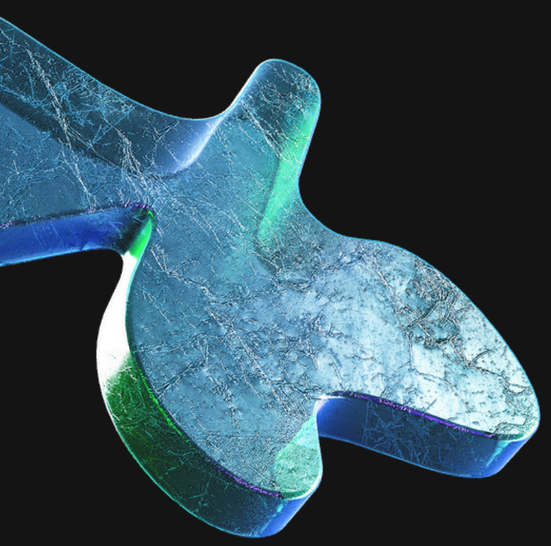
According to the World Economic Forum (WEF), 65% of today’s primary school students will be working in a job that currently doesn’t exist.

# Creativity

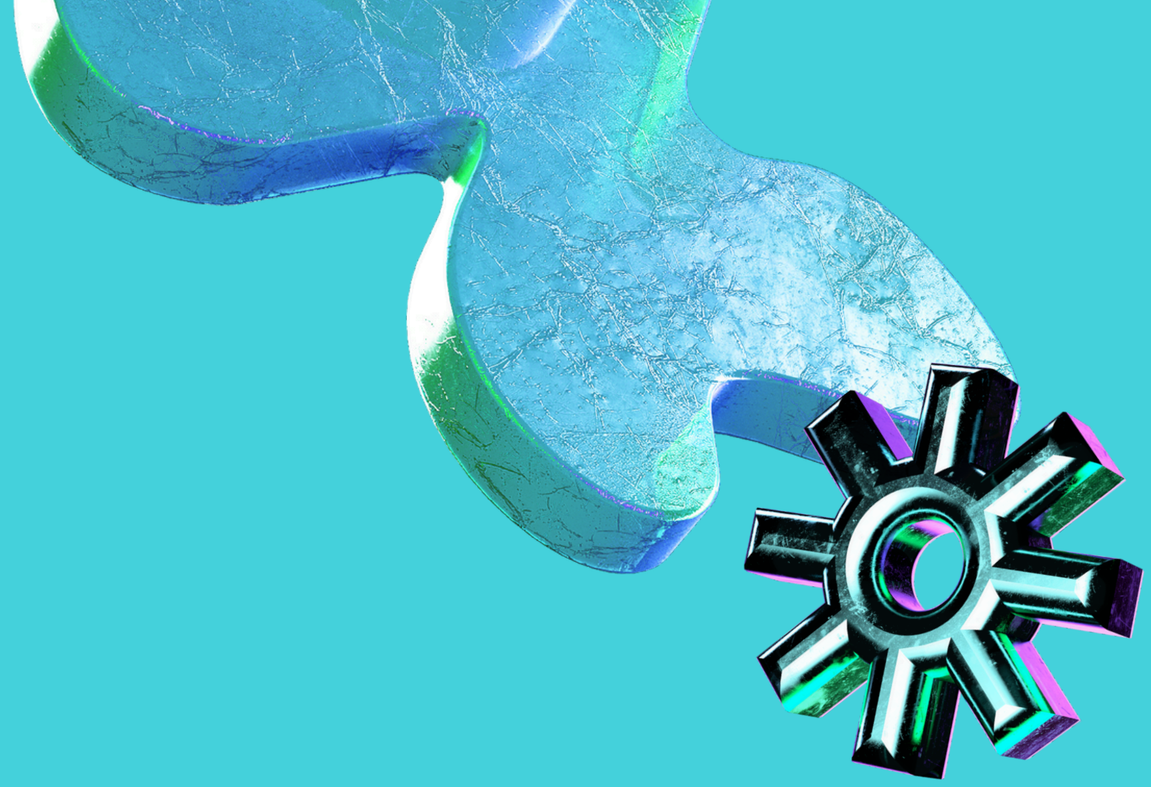


Digital tools in education enhance creativity by providing students with a diverse array of multimedia resources, interactive platforms, and creative software that facilitate exploration and expression across various subjects and disciplines. These tools offer students opportunities to experiment, collaborate, and present their ideas in innovative ways, fostering a dynamic learning environment that encourages imaginative thinking and problem-solving skills.

# What tools do you use while teaching?



# WHAT TOOLS WOULD YOU LOVE TO LEARN TO USE?



# ZOOM

Thanks to Pandemic now we know to do everything online :)

# Learning Management Systems (Moodle etc.)

What are benefits?

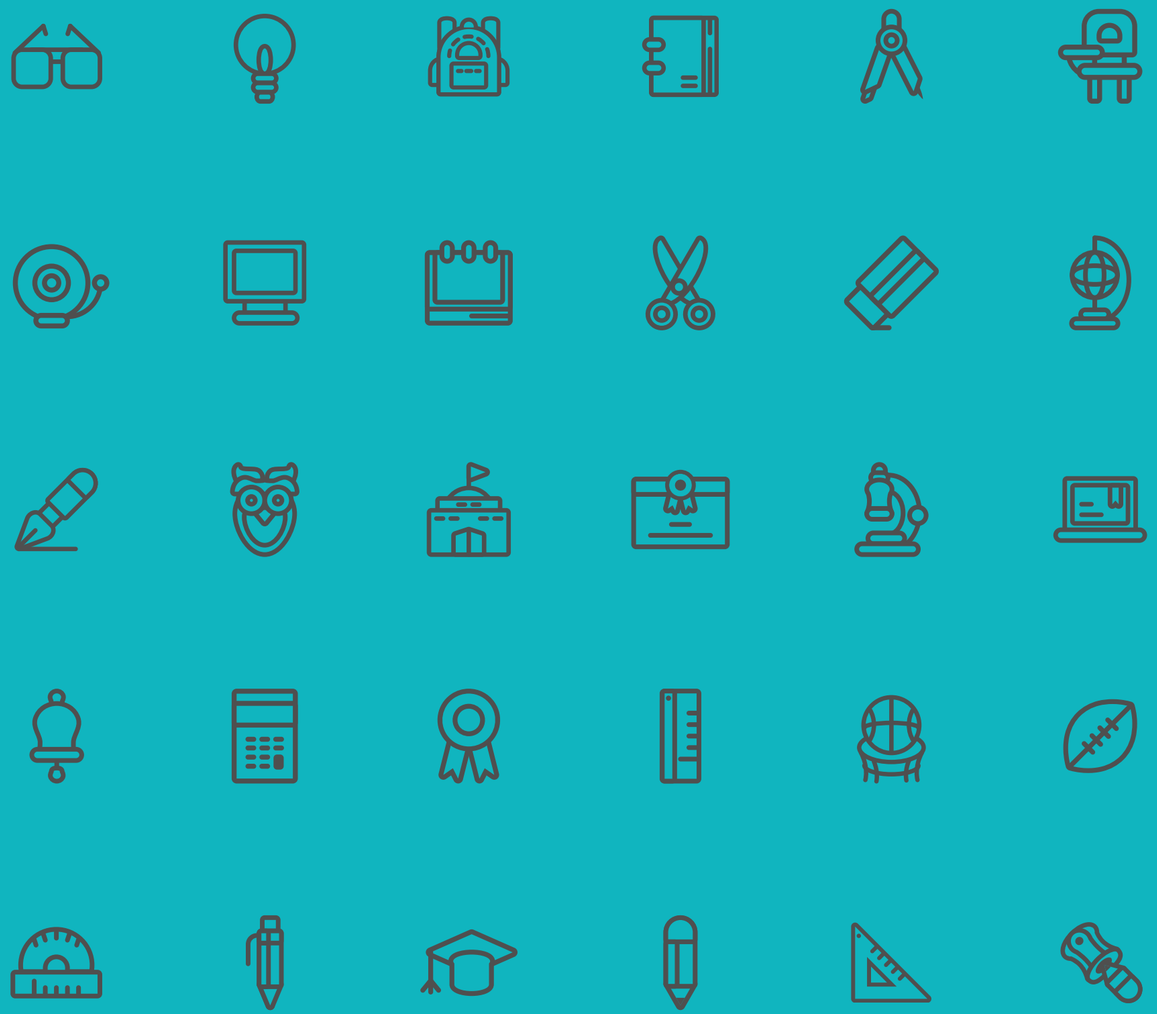
What about threats?

# CANVAS

**What tools do you use to create presentations?**

**Do you use only PowerPoint, or other interesting tools?**

**What about using AI generated text in Canvas??**



# Online research databases

Do you use them?

## SCOPUS

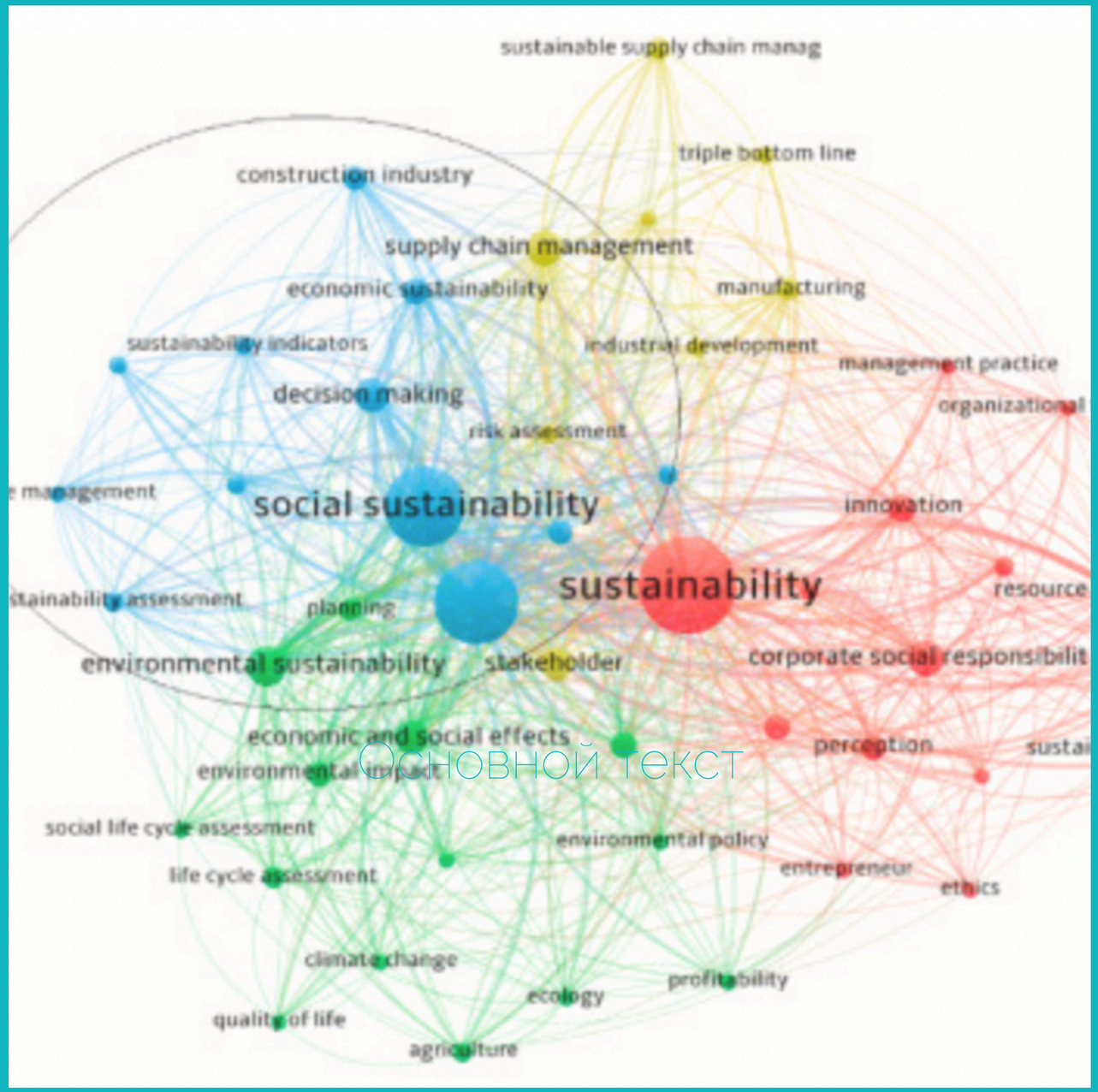
What are recent findings in your field?

## VOSVIEWER

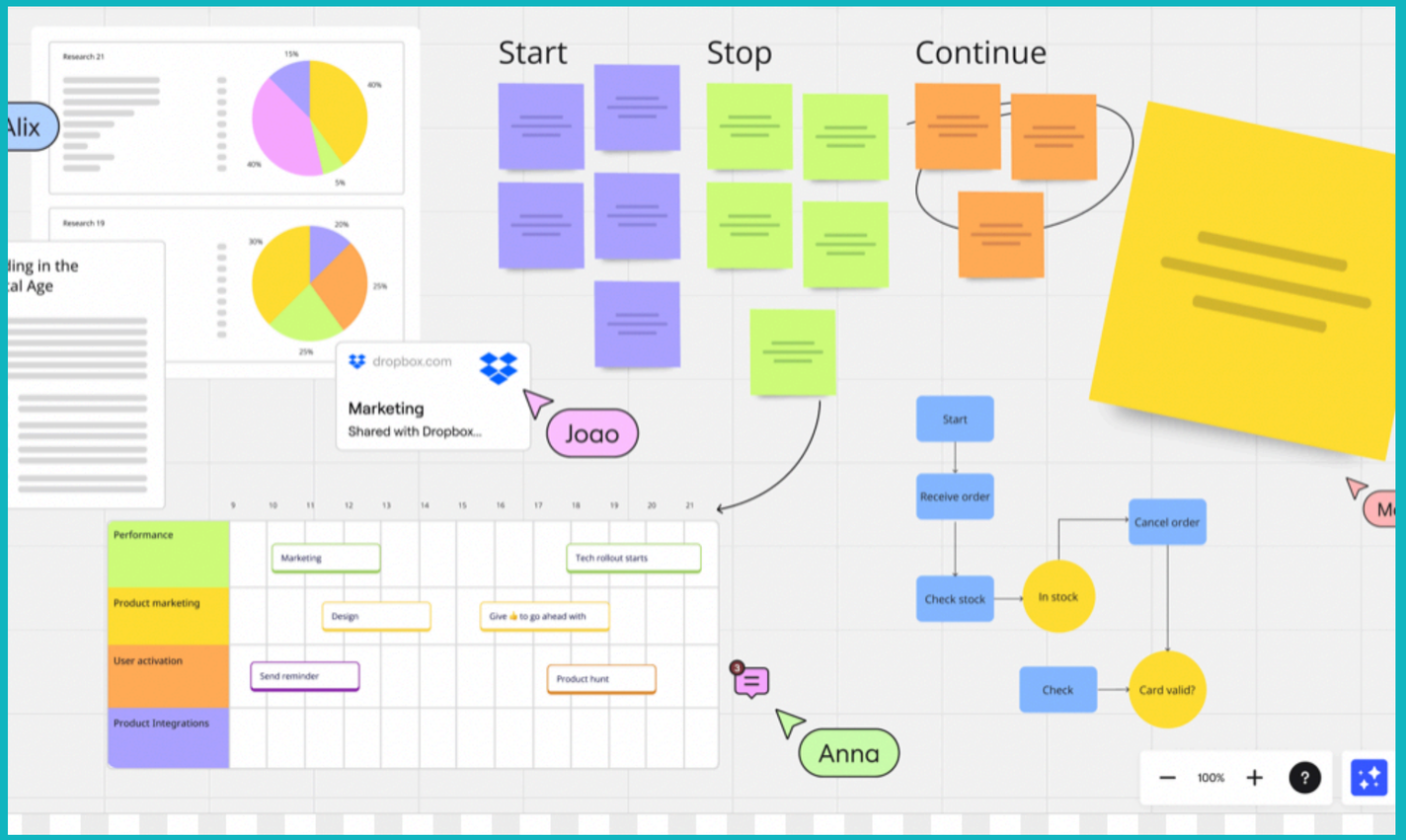
Can we show those recent findings in attractive way?

## CLUSTER ANALYSIS

Can we go little deeper and make cluster analysis?

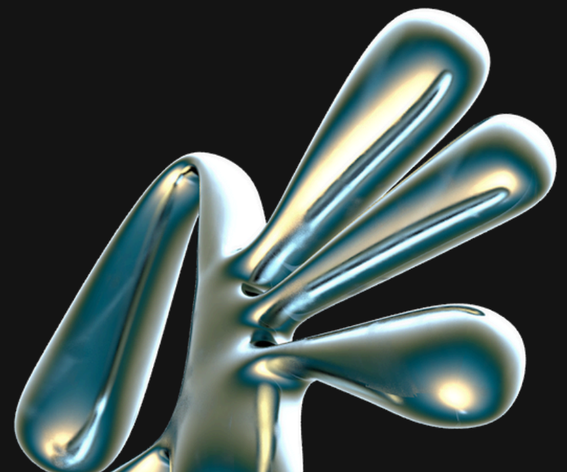


# MIRO


Start
Stop
Continue
Alix
Research 21
Research 19
dropbox.com
Marketing
Shared with Dropbox...
Joao
Performance
Product marketing
User activation
Product Integrations
Marketing
Tech rollout starts
Design
Give 👍 to go ahead with
Send reminder
Product hunt
Anna
Start
Receive order
Check stock
In stock
Cancel order
Check
Card valid?
100%

# What about adding little more fun?

# KAHOOT!



# Distribution of respondents by country

| Country | Amount of respondents | Share in % |
|---|---|---|
| Latvia | 149 | 41% |
| Lithuania | 119 | 33% |
| Ukraine | 54 | 15% |
| Uzbekistan | 12 | 3% |
| Bulgaria | 26 | 7% |

Distribution of gender of the respondents who filled survey is similar – 48% of respondents were female and 50% of respondents were male; 2% of respondents chose option “other”.

# Distribution of respondents by level of studies and field

| Criteria | Amount of respondents | Share in % |
|---|---|---|
| **Level of degree** | | |
| Short cycle | 21 | 10% |
| Bachelor | 173 | 83% |
| Masters | 10 | 5% |
| PhD | 5 | 2% |
| **Field of education** | | |
| Education | 20 | 10% |
| Economics | 14 | 7% |
| Finance | 30 | 15% |
| Management and entrepreneurship | 24 | 12% |
| Information technologies | 10 | 5% |
| Mathematics | 0 | 0% |
| Engineering | 24 | 12% |
| Manufacturing | 2 | 1% |
| Medicine | 34 | 17% |
| Other | 47 | 23% |

# First study

Firstly, authors idea was to find out ***how many respondents use Chat GPT in general for their studies.*** 414 students answered question “Do you use Generative Tools of Artificial Intelligence tools (Like chat GPT etc.) in the daily study process?”

Results were distributed similarly, as 194 respondents (54%) answered that they do use Chat GPT in they daily study process, but 166 students (46%) answered that they do not use. Definitely, results show that not all the Higher Education Institutions implemented Generative Tools of AI in the study process, and not all students themselves uses it to complete tasks of their studies.

In order to reach the goal of the study, authors analysed for what exactly students use Chat GPT. 290 students answered question ***“For what tasks do you use Generative Tools of AI (like Chat GPT)?”***

| Answer | % from the total share |
|---|---|
| To find answers of test/task/exam | 18% |
| To gain new knowledge | 33% |
| For inspiration | 34% |
| For help in development of structure of research/task | 15% |

# Second study

Authors of the study developed following hypothesis:
***H1: Students of technical education (IT and engineering) evaluate their knowledge of Chat GPT higher, than students from other fields.***
Students were asked to rate their knowledge about usage of Chat GPT from 1 to 10.
To test the hypothesis, authors used Kruscal-Wallis non-parametric test.
Results of the tests show that ***there is no statistically significant difference*** between evaluation of knowledge of Chat GPT and field of education of respondents, as Asymp.Sig. (2-tailed) is .091 (as standard alpha levels is 0.05).
Based on the calculations, ***hypothesis is rejected.***

# Third Study

In general, ***students consider usage of Chat GPT ethical,*** as 278 of students who participated in research answered, but 132 students noted that usage of it in education is unethical.

To achieve the goal of the research, authors designed hypothesis:
***H: There is statistically significant difference between perception of is using Generative AI tool in education is ethical or not within the respondents from different countries.***
Respondents were asked to answer the question “In your opinion, is usage of generative Tools of AI in study process by students ethical”, by offering them two options – yes or no.
To the the Hypothesis authors used Kruscal-Wallis non-parametric test.
Results of the test showed that ***there is statistically significant difference*** between perception if usage of Generative Tools of AI is ethical or not within the countries of respondents study in. Mean rank of the answers of students from Bulgaria is higher than of students from other countries, what shows that **students from Bulgaria statistically consider usage of Chat GPT more unethical than students from other countries.**

The extent to which AI can save time and enhance productivity will vary greatly among individual workers. According to  analysis, most time savings are expected to stem from AI-enabled software that handles cognitive tasks, rather than from more expensive AI-driven hardware designed for physical labor. Consequently, fields involving intricate manual labor, such as skilled trades or construction, are likely to experience less impact from AI. In contrast, workers in roles centered on routine cognitive tasks, particularly in administrative jobs, and those in data-heavy industries like banking and finance—where training AI models is relatively straightforward—are likely to be more affected.

**Tony Blair Institute for Global Change, 2024**

**T**he introduction of ChatGPT and image-generating tools led to nearly immediate decreases in posts for online gig workers across job types, but particularly for automation-prone jobs. After the introduction of ChatGPT, there was a 21% decrease in the weekly number of posts in automation-prone jobs compared to manual-intensive jobs. Writing jobs were affected the most (30.37% decrease), followed by software, app, and web development (20.62%) and engineering (10.42%).

**HBR, 2024**

We already know that past waves of new technology didn’t cause massive job losses. Instead, they changed the job market and created challenges that governments are still working to address. Workers often need to learn new skills or improve existing ones to adapt to new ways of working and to take on new types of jobs. These skills can help them handle job losses and move into new roles. Policies and systems can make a big difference in helping workers succeed in a changing job market.
Even though AI might make the challenges bigger, increase inequalities, and create new workplace issues, policymakers can use these lessons to help workers adapt and thrive during technological change.

**OECD, 2021**


Thank
AI
you