

Partners in the creation of learning experiences

Thursday, October 19, 2023

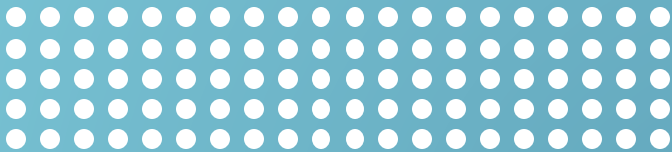
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Libraries and Academic Innovation

My role in Generative Artificial Intelligence (GAI)

- GAI is strategic to the enhancement of digital learning at GW.
 - Scale, speed, and creativity.
- GAI may bolster cost efficiency in higher-ed.
 - Estimated GW UG cost of attendance – **\$85,740**
New first-year, Fall 2023 to Spring 2024
- Rethinking learning activities and assignments.
 - Working with faculty (and staff)
 - Speaking with students
 - Presenting and workshops
- Communicating to our community.
 - What can be done with it and what we are doing
 - Building guidance and resources
- An interest – Future of work.



Students and professional skills

Students are and will be using GAI.

We should think about what learners need to be part of an AI-partnered profession.

And we should think about ourselves too.

Questions:

- How can we design to show/sell the value of a sequence, assignment, or activity?
- How can we design to highlight the value of deep critical thinking?
- How can you design to enable valuable human-machine interaction?

- Interactions between people
- Project leadership and innovative thinking
- Critical assessment of incoming information
- Creative problem solving
- Communicating with clarity and empathy
- Fluency: Information, digital tools, artificial intelligence
- Use of domain specific knowledge and words



World Economic Forum, Future of Jobs Survey

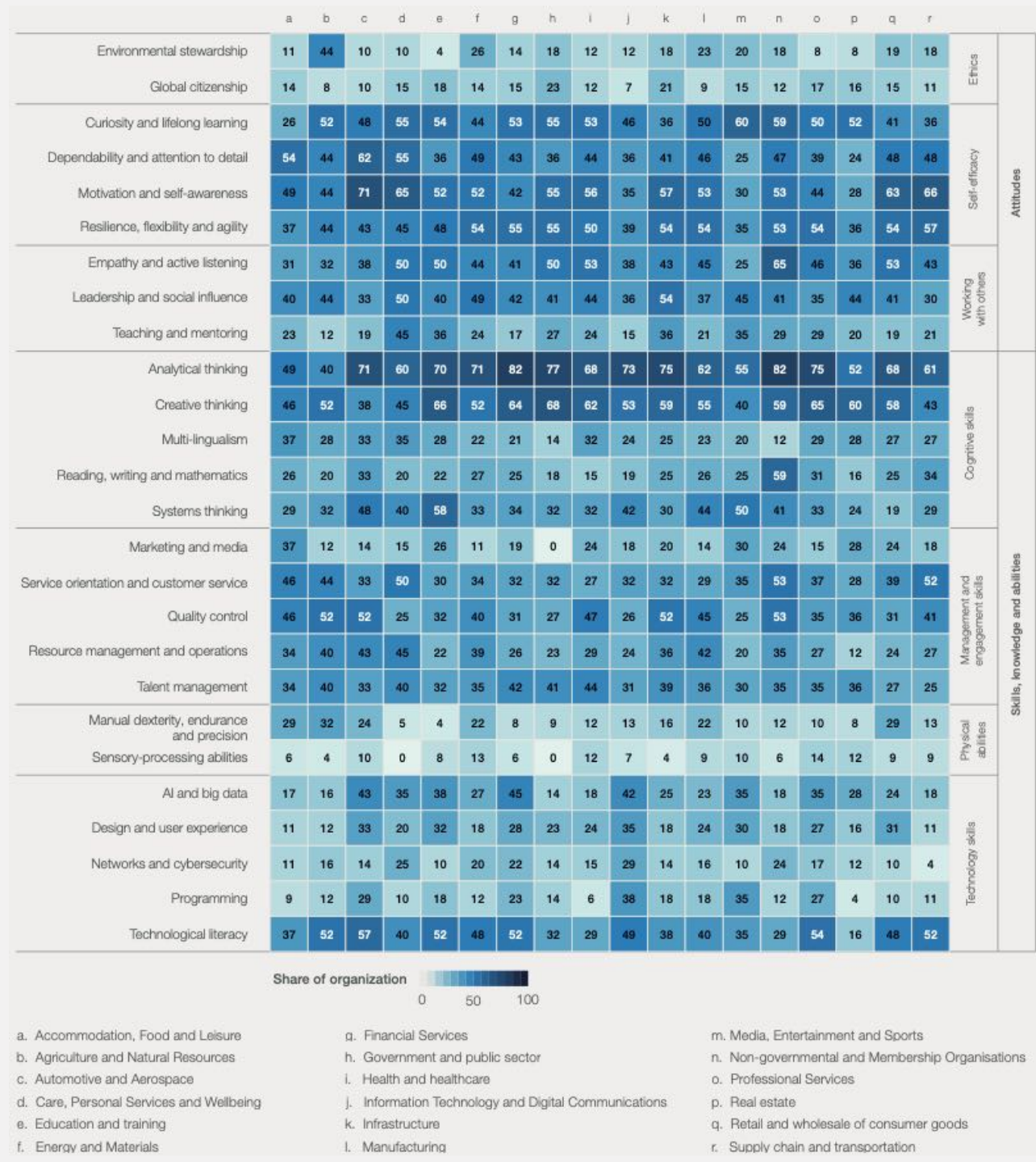
April 2023

Skill importance in 2023, Figure C1, pg. 79

See it for what industries are looking for.
Think about students. Think about where
GAI and AI has a role.

Source:

https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf



World Economic Forum, Future of Jobs Survey

April 2023

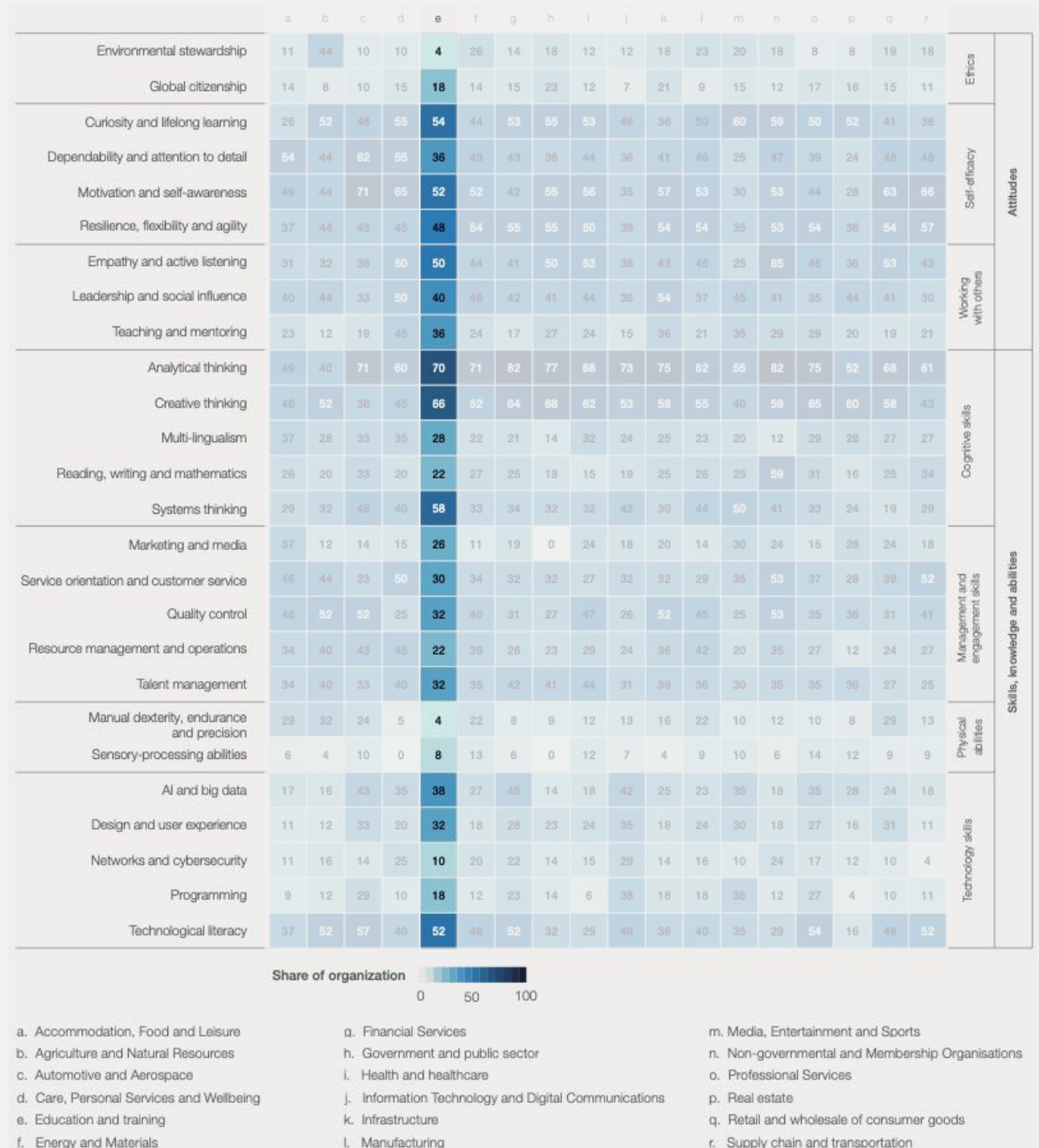
Skill importance in 2023, Figure C1, pg. 79

Look at column E for you/us.

Core skills (2023).

Source:

https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf



World Economic Forum, Future of Jobs Survey

April 2023

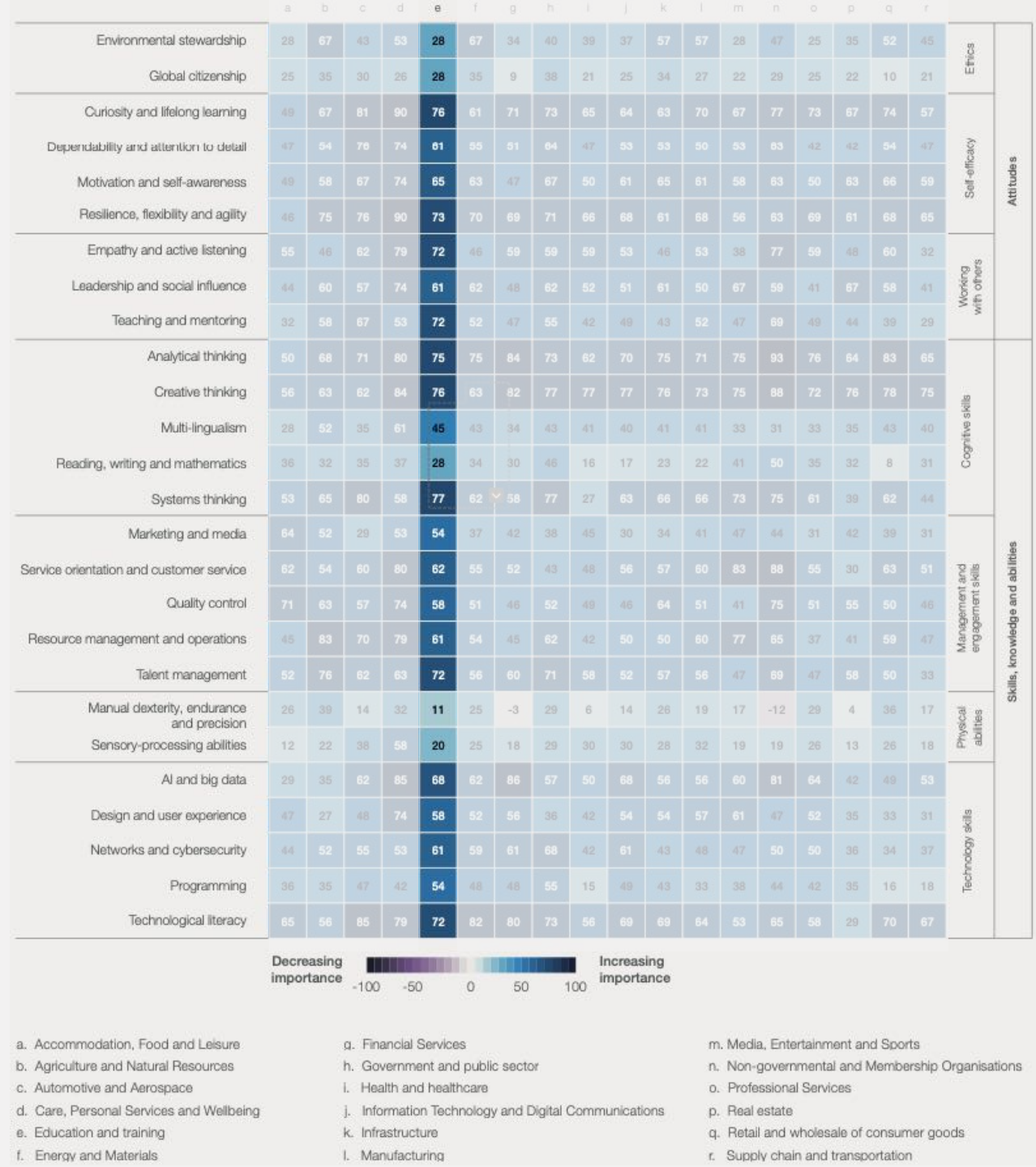
Skill importance in 2023, Figure C2, pg. 80

Look at column E for you/us.

Skill importance increasing or decreasing (2023-2027).

Source:

https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf



World Economic Forum, Future of Jobs Survey

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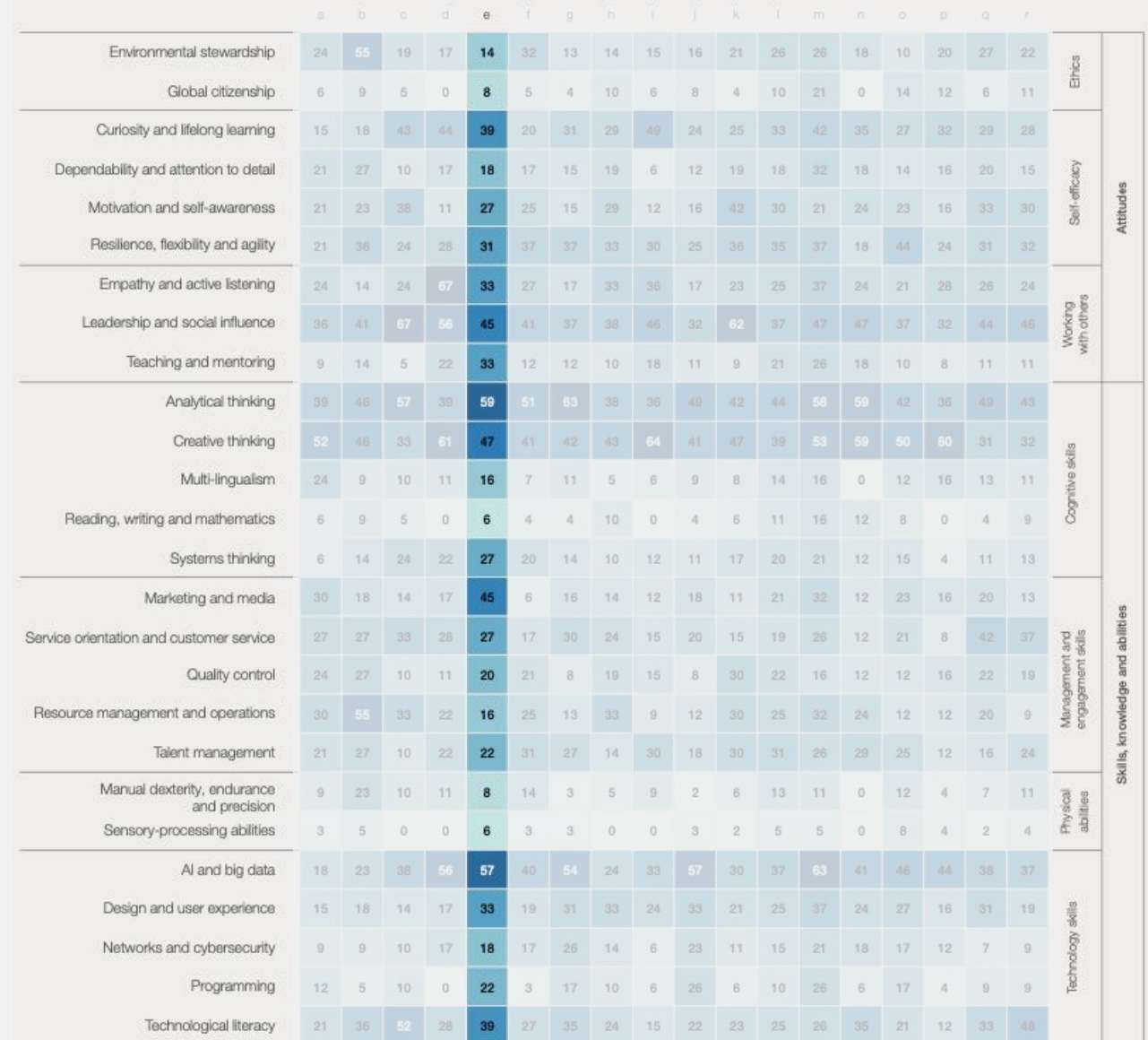
Skill importance in 2023, Figure C3, pg. 81

Look at column E for you/us.

Upskilling priorities (2023-2027).

Source:

https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf



Share of organization

0 50 100

- a. Accommodation, Food and Leisure
- b. Agriculture and Natural Resources
- c. Automotive and Aerospace
- d. Care, Personal Services and Wellbeing
- e. Education and training
- f. Energy and Materials

- g. Financial Services
- h. Government and public sector
- i. Health and healthcare
- j. Information Technology and Digital Communications
- k. Infrastructure
- l. Manufacturing

- m. Media, Entertainment and Sports
- n. Non-governmental and Membership Organisations
- o. Professional Services
- p. Real estate
- q. Retail and wholesale of consumer goods
- r. Supply chain and transportation

What stands-out...

Analytical thinking and **creative thinking** are important and continue to be considered important across sectors.

In the education and training sector:

- **AI and big data** is recognized as something workers need upskilling in; and
- Relative to other sectors, **AI and big data** is considered to be of increasing importance.



Partner with GAI in what we do

Start by focusing on what we do and our potential relationship with GAI.
Ultimately, our work lends to the success or failure of students.

Starting to think with action verbs

What I can do. What it can do.

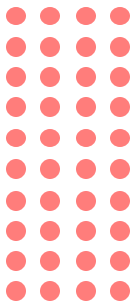
Bloom's revised (2001)

Knowledge → Cognitive ↓	Factual	Conceptual	Procedural	Metacognitive
Create	Generate	Assemble	Design	Create
Evaluate	Check	Determine	Judge	Reflect
Analyze	Select	Differentiate	Integrate	Deconstruct
Apply	Respond	Provide	Carry-out	Use
Understand	Summarize	Classify	Clarify	Predict
Remember	List	Recognize	Recall	Identify

Partnering with GAI

Tasks it can do with me.

General	Summarizing large amounts of text.	Helping to identify strategies for data visualization.	Proposing alternative solutions to the same problem.	Outlining a roadmap and timeline for learning X.
Academic research	Locating primary source articles.	Identifying additional examples and cases.	Proposing counter arguments.	Generating reproducible code for analyses.
Learning and media design	Collaborative discussion on syllabus drafting.	Drafting course and module level learning objectives.	Brainstorming potential learning activities.	Drafting scripts for audio and video recordings.
Assessment design	Creating draft/parallel assessment questions and answers.	Providing explanations for why X is correct.	Giving additional feedback to learners.	Proposing strategies types for a given skill.
Partnering	Giving you and your students a debate partner.	Helping you to find more or better questions.	Helping to 'tighten' language.	Filling the role of a tutor outside of class.



Oregon State University: Bloom's Taxonomy revisited, AI and Human

(Adapted from OSU)



Contrasting our qualities working together.

	Artificial Intelligence: Capabilities	Human: Distinctive skills
Create	Suggest a range of alternatives, enumerate potential drawbacks and advantages, describe successful real-world cases.	Formulate original solutions incorporating human judgement, collaborate spontaneously
Evaluate	Identify pros and cons of various courses of action, develop rubrics	Engage in metacognitive reflection, holistically appraise ethical consequences of alternative courses of action
Analyze	Compare and contrast data, infer trends and themes, compute, predict	Critically think and reason within the cognitive and affective domains, interpret and relate to authentic problems, decisions, and choices
Apply	Make use of a process, model, or method to illustrate how to solve a quantitative inquiry	Operate, implement, conduct, execute, experiment, and test in the real world; apply creativity and imagination to idea and solution development
Understand	Describe a concept in different words, recognize a related example, translate	Contextualize answers within emotional, moral, or ethical considerations
Remember	Recall factual information, list possible answers, define a term, construct a basic chronology	Recall information in situations where technology is not readily accessible

Conceptual world

Real world