

## Meta-Artificial Intelligence Literacy Scale

In the following, you will read descriptions of different abilities that one can have when dealing with artificial intelligence. These abilities can be more or less pronounced. Please rate yourself: How pronounced are your abilities?

A value of **0** means that an ability is not at all or hardly pronounced.

A value of **10** means that an ability is very well or (almost) perfectly pronounced.

Please circle the value that best describes your ability.

1. I can operate AI applications.	0	1	2	3	4	5	6	7	8	9	10
2. I can use AI applications to make my life easier.	0	1	2	3	4	5	6	7	8	9	10
3. I can use artificial intelligence meaningfully to achieve my goals.	0	1	2	3	4	5	6	7	8	9	10
4. I can interact with AI in a way that makes my tasks easier.	0	1	2	3	4	5	6	7	8	9	10
5. I can work together gainfully with an artificial intelligence.	0	1	2	3	4	5	6	7	8	9	10
6. I can communicate gainfully with artificial intelligence.	0	1	2	3	4	5	6	7	8	9	10
7. I know the most important concepts of the topic "artificial intelligence".	0	1	2	3	4	5	6	7	8	9	10
8. I know definitions of artificial intelligence.	0	1	2	3	4	5	6	7	8	9	10
9. I can assess what the limitations and opportunities of using an AI are.	0	1	2	3	4	5	6	7	8	9	10
10. I can assess what advantages and disadvantages the use of an artificial intelligence entails.	0	1	2	3	4	5	6	7	8	9	10
11. I can think of new uses for AI.	0	1	2	3	4	5	6	7	8	9	10
12. I can imagine possible future uses of AI.	0	1	2	3	4	5	6	7	8	9	10
13. I can tell if I am dealing with an application based on artificial intelligence.	0	1	2	3	4	5	6	7	8	9	10

14. I can distinguish devices that use AI from devices that do not.

0 1 2 3 4 5 6 7 8 9 10

15. I can distinguish if I interact with an AI or a "real human".

0 1 2 3 4 5 6 7 8 9 10

16. I can weigh the consequences of using AI for society.

0 1 2 3 4 5 6 7 8 9 10

17. I can incorporate ethical considerations when deciding whether to use data provided by an AI.

0 1 2 3 4 5 6 7 8 9 10

18. I can analyze AI-based applications for their ethical implications.

0 1 2 3 4 5 6 7 8 9 10

19. I can design new AI applications.

0 1 2 3 4 5 6 7 8 9 10

20. I can program new applications in the field of "artificial intelligence".

0 1 2 3 4 5 6 7 8 9 10

21. I can develop new AI applications.

0 1 2 3 4 5 6 7 8 9 10

22. I can select useful tools (e.g., frameworks, programming languages) to program an AI.

0 1 2 3 4 5 6 7 8 9 10

23. I can rely on my skills in difficult situations when using AI.

0 1 2 3 4 5 6 7 8 9 10

24. I can handle most problems in dealing with artificial intelligence well on my own.

0 1 2 3 4 5 6 7 8 9 10

25. I can also usually solve strenuous and complicated tasks when working with artificial intelligence well.

0 1 2 3 4 5 6 7 8 9 10

26. Despite the rapid changes in the field of artificial intelligence, I can always keep up to date.

0 1 2 3 4 5 6 7 8 9 10

27. I can keep up with the latest innovations in AI applications.

0 1 2 3 4 5 6 7 8 9 10

28. Although there are often new AI applications, I manage to always be "up-to date".

0 1 2 3 4 5 6 7 8 9 10

29. I don't let AI influence me in my decisions.

0 1 2 3 4 5 6 7 8 9 10

30. I can prevent an AI from influencing me in my decisions.

0 1 2 3 4 5 6 7 8 9 10

31. I realise if artificial intelligence is influencing me in my decisions.	0	1	2	3	4	5	6	7	8	9	10
32. I keep control over feelings like frustration and anxiety while doing things with AI.	0	1	2	3	4	5	6	7	8	9	10
33. I can handle it when interactions with AI frustrate or frighten me.	0	1	2	3	4	5	6	7	8	9	10
34. I can control my euphoria that arises when I use artificial intelligence for different purposes.	0	1	2	3	4	5	6	7	8	9	10

The Meta-Artificial Intelligence Literacy Scale is divided into the following sections. To determine the individual values, a mean score must be calculated from the corresponding items.

### Artificial Intelligence Literacy

Use & Apply:	Items 1 to 6
Know & Understand:	Items 7 to 12
Detect AI:	Items 13 to 15
AI Ethics:	Items 16 to 18

**Create AI** Items 19 to 22

### AI Self-Efficacy

AI Problem-Solving:	Items 23 to 25
Learning:	Items 26 to 28

### AI Self-Competency

Persuasion Literacy:	Items 29 to 31
Emotion Regulation:	Items 32 to 34

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