Supplementary file1:

Dear Participant, Thank you for agreeing to take part in this online questionnaire survey with a study title of: Radiologic technology students' perceptions on adoption of Artificial Intelligence (AI) technology in Radiology. The purpose of this online survey is to analyze radiologic technology students' perceptions towards AI and its application in radiology. It will take approximately 5 minutes to complete the survey. Be assured that all answers you provide will be used only for this scientific research and it will be kept in a strictest confidentiality. Please feel free to call Dr. Wejdan Arif , Mobile No. 0500074860 to answer your questions.

1.Would you choose Radiology as a specialty? (Q1)

Yes

No

2. If the previous question is affirmative, in what order of preference would you place it? (Q2)

First

Second

Third

I don't mind

3. Do you know what Artificial Intelligence (AI) is and its applications? (Q3)

Yes

No

I don't know- I don't answer

4. Are you aware of how much we use AI in our daily lives? (voice and face recognition systems, Web search engines, cybersecurity, autonomous vehicles, robots, online shopping, advertising...) (Q4)

Yes

No

I don't know- I don't answer

5. From what sources have you obtained information about AI? (Q5)

Friends-Family

Teachers-University

Papers and Journals

MEDIA (Television, Internet, Social networks)

Radiologists

6. In relation to Artificial Intelligence (AI) and Radiology, check the answers you consider true. (Q6)

a. AI is the ability of advanced computer systems to perform the same tasks as human beings (capabilities such as: reasoning, learning, creating and planning). A/True

b. Machine learning (automatic learning) allows machines through algorithms and mathematical models to learn without being expressly programmed for it. A/ True:

c. Deep learning: techniques based on artificial neural networks that process data and are capable of automatically recognizing patterns in biomedical images. A/ True:

d. The use of deep learning in radiology does not require large databases of medical images for good pattern recognition. R/ False

e. CAD (computer aided diagnosis): these are computer aided diagnosis tools developed to detect, to segment and to classify lesions or complex patterns in radiological images. A/ True

f. Radiomics: technique that consists of obtaining quantifiable information from medical images such as magnetic resonance, computed tomography or PET. They are important in detecting, evaluating and monitoring diseases. A/ True

g. Radiomics emerged from the fields of Radiology and Oncology and its application is exclusive to them. A/ False

7. Do you think that students should be trained in the use of AI? (Q7)

Strongly disagree.

Disagree

Neither agree/ Nor disagree

Agree

Totally agree

8. Do you think AI can influence human capabilities? (No.8 quiz)

It improves them

It increases them

It did not influence these capacities

9. Do you think AI can affect human autonomy by interfering with decision making? (No.9 quiz)

Strongly disagree.

Disagree

Neither agree/ Nor disagree

Agree

Totally agree

10. Do you think AI should follow ethical principles? (Q10)

Strongly disagree.

Disagree

Neither agree/ Nor disagree

Agree

Totally agree

11. What would you consider to be the biggest drawback of using AI in radiology? (Q11)

They cannot interpret the patient in a global clinical context:

High cost of its implementation

Possible vulnerability of the right to privacy of patients

Necessary training in the management of AI for professionals

12. What role would you assign to the use of AI in radiology? (Q12)

Support Role

Preponderant

I will not use it

13. Do you think the rise of AI could replace radiographers? (Q13)

Strongly disagree.

Disagree

Neither agree/ Nor disagree

Agree

Totally agree

14. Will the way radiologists work change with the impact of AI? (Q14)

Strongly disagree.

Disagree

Neither agree/ Nor disagree

Agree

Totally agree

The questionnaire is pre-validated, and adopted from an open access study :

Barreiro-Ares A, Morales-Santiago A, Sendra-Portero F, Souto-Bayarri M. Impact of the rise of artificial intelligence in radiology: What do students think? International Journal of Environmental Research and Public Health. 2023;20(2):1589. doi:10.3390/ijerph20021589