

Appendix A: Level of use of Artificial Intelligence/Deep Learning Radiology

Level of use of AI/DL Radiology	
LoU0	I have no experience in AI/DL Radiology ; I have no significant knowledge about it and I am doing nothing towards becoming involved in it
LoU1	I have acquired or am acquiring information about AI/DL Radiology ; I am exploring its value and its demands upon physicians and health institutions
LoU2	I think I am ready for AI/DL Radiology implementation and am preparing for my first use
LoU3	I have already made my first steps in AI/DL Radiology ; I am using it superficially or whenever I need it
LoU4a	I am using AI/DL Radiology in my routine practice but I have no idea about its impact on my patients or the quality of care
LoU4b	I am using AI/DL Radiology and attempting to optimize my use to meet my patients' needs and or improve my clinical practice
LoU5	I am using AI/DL Radiology and coordinating my efforts with other colleagues and health professionals for best effect on patient care
LoU6	I am using AI/DL Radiology and I think there are some necessary modifications to the system to achieve increased impact of patients; Or, I am using AI/DL Radiology and I think its scope should be expanded to new goals

Appendix B: Opinions about the opportunities of artificial intelligence in radiology

To what extent do you think Artificial intelligence, Machine learning, and Deep learning can or will impact the following steps of standard radiology workflow?					
	1 ○ No impact	2 ○ Small impact	3 ○ Moderate impact	4 ○ Large impact	5 ○ Drastic impact
01	Enhance clinical decision for imaging exam ordering by analyzing patient's electronic medical record (EMR)			1 ○	2 ○ 3 ○ 4 ○ 5 ○
02	Optimize scheduling for patients and resources			1 ○	2 ○ 3 ○ 4 ○ 5 ○
03	Enable automated protocol selection			1 ○	2 ○ 3 ○ 4 ○ 5 ○
04	Enhance image acquisition by improving image quality with less time and radiation			1 ○	2 ○ 3 ○ 4 ○ 5 ○
05	Enable automated finding detection			1 ○	2 ○ 3 ○ 4 ○ 5 ○
06	Enable automated diagnosis generation and differential diagnosis augmentation			1 ○	2 ○ 3 ○ 4 ○ 5 ○
07	Expedite abnormal image interpretation			1 ○	2 ○ 3 ○ 4 ○ 5 ○
08	Enhance structured reporting			1 ○	2 ○ 3 ○ 4 ○ 5 ○
09	Enhance communication of findings and guidance through EMR			1 ○	2 ○ 3 ○ 4 ○ 5 ○
10	Optimize billing			1 ○	2 ○ 3 ○ 4 ○ 5 ○

Appendix C: Attitudes regarding AI Radiology impact on the Radiologist Profession

How would the implementation of AI radiology impact each of the following aspects of the radiologist profession?									
_____-(-2)_____		_____-(-1)_____		_____(0)_____		_____(+1)_____		_____(+2)_____	
Very negative impact		Negative impact		Mixed opinion, or no impact		Positive impact		Very positive impact	
01	Medical Imaging Ethics			-2 ○	-1 ○	0 ○	+1 ○	+2 ○	
02	Medical liability of radiologists			-2 ○	-1 ○	0 ○	+1 ○	+2 ○	
03	Quality of image acquisition			-2 ○	-1 ○	0 ○	+1 ○	+2 ○	
04	Accuracy of image interpretation			-2 ○	-1 ○	0 ○	+1 ○	+2 ○	
05	Wait times and appointment delays			-2 ○	-1 ○	0 ○	+1 ○	+2 ○	
06	Work load in radiology			-2 ○	-1 ○	0 ○	+1 ○	+2 ○	
07	Radiologist's role in society			-2 ○	-1 ○	0 ○	+1 ○	+2 ○	
08	Radiologist's income			-2 ○	-1 ○	0 ○	+1 ○	+2 ○	
09	Radiologist's training and skills			-2 ○	-1 ○	0 ○	+1 ○	+2 ○	
10	Radiologist's job satisfaction			-2 ○	-1 ○	0 ○	+1 ○	+2 ○	

Appendix D: Perceived ease of use (PEoU) and behavioral intention (BI) of AI radiology use in routine practice

Please rate your level of agreement to the following statements:						
	1	2	3	4	5	
	Extremely disagree	Disagree	I do not know	Agree	Extremely agree	
PEoU1	Understanding the principles of AI Radiology would be easy for me			1 ○	2 ○	3 ○ 4 ○ 5 ○
PEoU2	Learning to operate AI Radiology would be easy for me					
PEoU3	I would find it easy to do all what I need to do in my practice using AI Radiology			1 ○	2 ○	3 ○ 4 ○ 5 ○
BI1	Assuming I have access to the system, I intend to use AI Radiology			1 ○	2 ○	3 ○ 4 ○ 5 ○
BI2	To the extent possible, I intend to use AI/DL technology in all dimensions of my radiology practice			1 ○	2 ○	3 ○ 4 ○ 5 ○
BI3	I intend to encourage my colleagues to use AI Radiology			1 ○	2 ○	3 ○ 4 ○ 5 ○