

Radiographers' Readiness for AI Leadership: Confidence, Challenges and Role Expectations in the UK



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AI Leadership

Leadership roles are essential for safe and effective AI implementation (Topol Review 2019, Goldacre Review, 2022, AHP strategy for England, 2022)

AI implementation is being driven by DHSC; "analogue to digital" (DHSC, '10-year-plan for NHS England, 2025)

Important to get AI implementation correct: costs money but also breaks down trust (Khanna et al, 2022)

Roles needed across technological, strategic, operational and organisational domains of the AI lifecycle (Sriharan et al, 2024)

AI Lead Characteristics: drive innovation, collaboration, balance tech & humans; but depends on leadership area (Wichtmann, 2025) (Müller et al, 2024)

Why Radiographers?

► Radiology is at the forefront of AI adoption in healthcare (FDA, 2025)

► SoR proposes radiographers as AI leaders (SoR AI Guidance, 2021)

Radiographers' Unique Skillset

Role Duality (Tech + Patient Care)

Communication Skills (across services)

Problem Solvers (when tech breaks)

Entire Workflow Insights (from referral > report)

Expert Leaders (those who have domain specific knowledge & skills that go on to lead within their speciality): drive innovation, make credible decisions & foster better teams with higher job satisfaction (Goodall, 2023).

- Radiographers can be these expert leaders within the AI ecosystem
- Locally, institution-wide & beyond

Aim

Explore qualified radiographers' thoughts and opinions on the potential for future AI Leadership roles for the profession.

Methodology

► Ethics granted by City St George's, UoL (ETH2223-134)

- Online Qualtrics survey quant & qual questions
- Distribution via social media
- Snowball sampling

► Inclusion criteria: all radiographers, including students

"Are radiographers well prepared to lead the implementation of AI in healthcare?"

"Would you feel confident to lead in an AI-enabled work environment?"

See **Figure 1** & **Table 1**

► **Workforce Readiness:** 61.9% reported radiographers not well prepared to lead.

► **Individual Confidence:** More balanced. 55.4% reported low confidence for AI leadership.

► Gap between perceived workforce readiness and individual confidence. ?Considering workforce pressures.

► May reflect distinction between leading AI adoption and leading within an environment where AI is already in use.

Table 1. Top two themes from free-text explanations of yes/no workforce preparedness responses.

"Are Radiographers well prepared to lead the implementation of AI?"	
Yes (n= 90)	No (n= 144)
Radiographer Skills (n= 61) <i>"We already work with highly technical concepts and are in the best position to manage AI in imaging."</i>	Lack of Education & Training (n= 99) <i>"More education and policy needed first to guide through the initial integrations."</i>
With Training & Support (n= 23) <i>"I think they could be as we are all technically minded. If given the appropriate knowledge and training and have the support from higher up, locally and nationally, then we could really have a big role in this"</i>	Lack of Resources (n= 38) <i>"In general, radiographers are well placed to implement it, however with current health pressures this is a difficult task."</i>

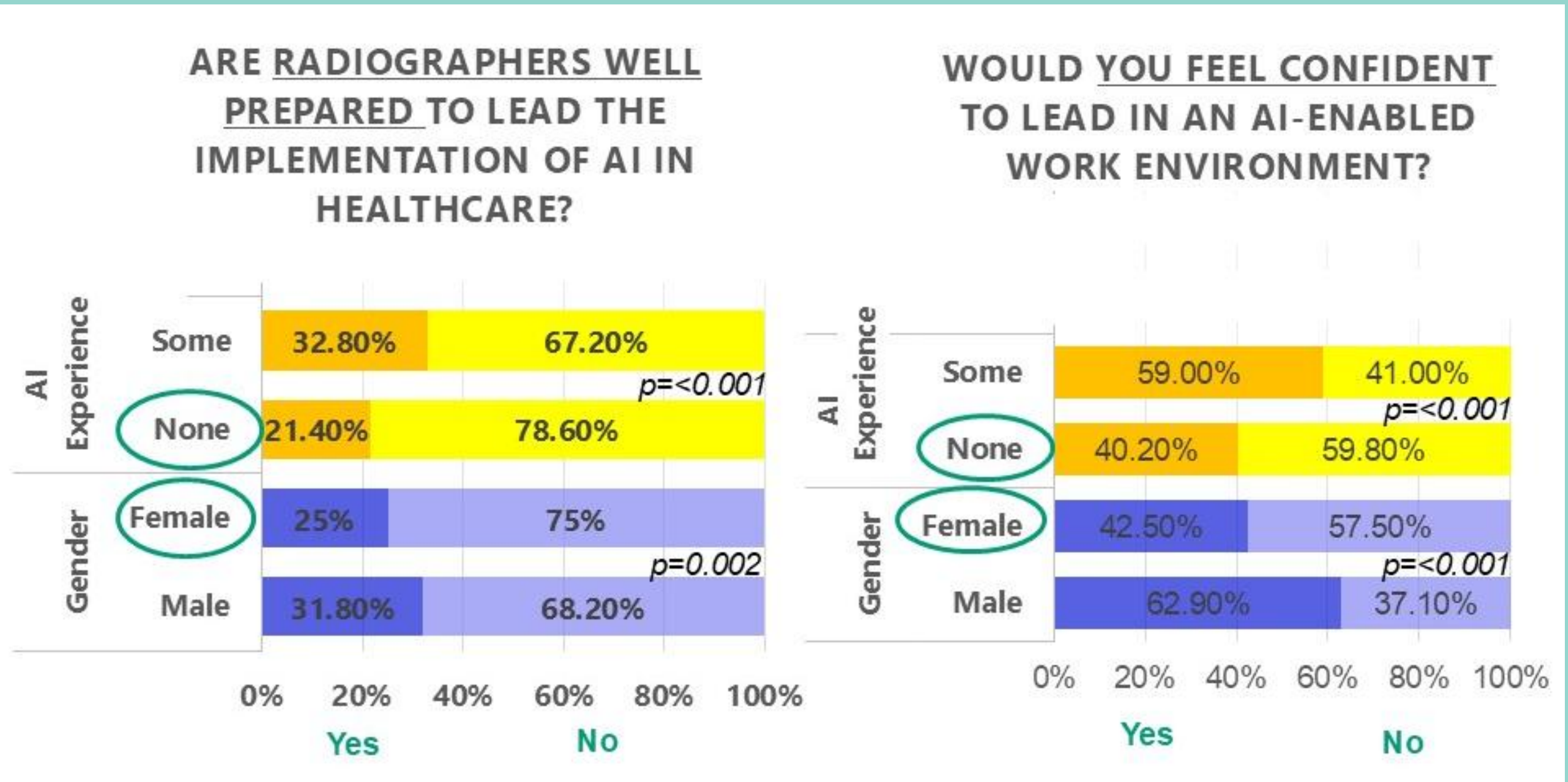


Figure 3. Statistically significant results from Mann Whitney U tests.

Inferential Results

See **Figure 3.** Mann Whitney U Tests (0.05 significance level)

Gender: Females reported lower confidence & lower perceived workforce preparedness for AI leadership than males.

AI Experience: Those with limited AI experience reported lower confidence in leading within the AI ecosystem than those using AI daily or involved in AI research.

"What are some day-to-day responsibilities you think an AI Radiographer leader could take on?"

See **Figure 4.** 19 Codes > 5 Themes.

Respondents focussed mainly on operational, practice-based tasks.

There was little reference to strategic, organisation-wide, or professional level responsibilities.



Figure 4. Word Cloud depicting colour coded categories and themes from free-text responses enquiring about potential roles and responsibilities of an AI leader.

Conclusion

► There is interest in AI Leadership roles by radiographers in the UK.

► However, Radiographers do not yet feel prepared for these new roles with leadership readiness correlating with AI experience & gender.

► Specific training and education (in AI & leadership) is highlighted as a priority to prepare radiographers for these roles and increase their confidence.

► Dedicated efforts are needed to increase support for women leaders (2/3 of workforce).

► Limited resources undermine radiographers' confidence and readiness to lead on AI.

Key Learning Points

Without investment in radiographer AI leadership development, the profession risks being shaped by AI rather than actively shaping how AI is integrated into imaging and radiotherapy services.



Acknowledgements

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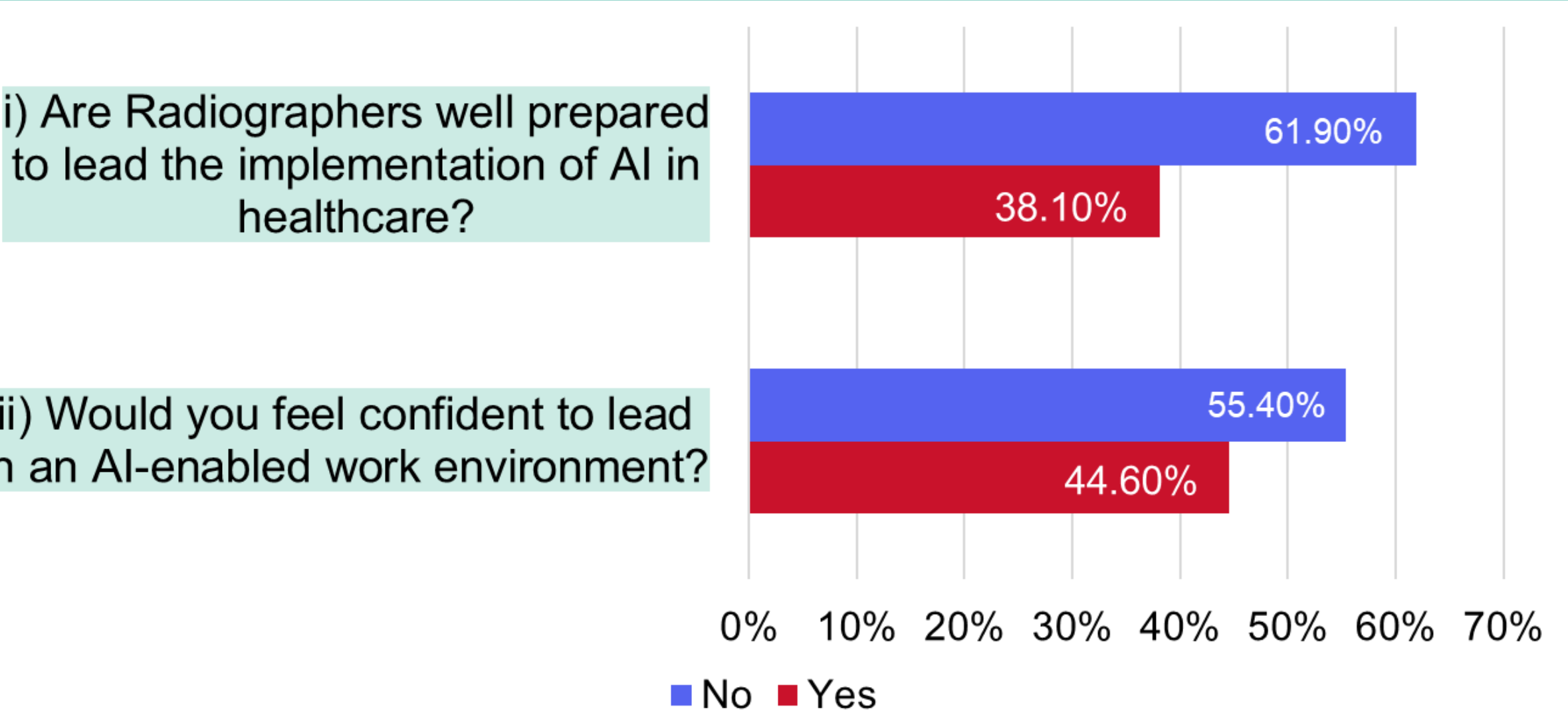


Figure 1. Percentage of responses to questions regarding AI leadership preparedness/confidence.