

Peer Review

Review of: "Artificial Intelligence in the Service of Health and Safety at Work: Perspectives and Challenges From Now to 2035 – A Prospective Study"

Hany Akeel Al-hussaniy¹

1. University of Baghdad, Iraq

Here is a Qeios-style structured peer review suitable for submission:

Peer Review Report

Article: *Artificial Intelligence in the Service of Health and Safety at Work: Perspectives and Challenges From Now to 2035 – A Prospective Study*

Type: Research Article

Field: Public Health / Occupational Health and Safety

Overall Evaluation

This manuscript presents a multidisciplinary foresight analysis exploring the future integration of artificial intelligence into occupational health and safety (OHS) systems up to 2035. The study employs morphological scenario analysis combined with expert workshops to generate plausible development pathways and strategic recommendations. The article addresses a highly relevant and rapidly evolving topic with strong societal and regulatory implications. The multidisciplinary perspective, structured foresight methodology, and comprehensive scenario development represent major strengths. However, certain methodological transparency issues, validation limitations, and generalisation challenges require clarification to enhance scientific rigour and reproducibility.

Recommendation: Minor to Moderate Revision

Strengths

1. High Topical Relevance and Societal Impact

The study addresses an important emerging area in occupational health. The increasing integration of Artificial Intelligence into workplace risk prevention is a critical public health priority, particularly given rapid technological adoption and regulatory developments worldwide.

2. Strong Multidisciplinary Approach

The inclusion of experts from public health, engineering, law, sociology, and AI provides balanced perspectives. This interdisciplinary collaboration strengthens the foresight exercise and enhances scenario realism.

3. Robust Foresight Methodology

The use of morphological scenario modelling is appropriate for long-term strategic analysis. The stepwise construction of variables, hypotheses, and scenario combinations is logically structured and well explained.

4. Practical Policy and Prevention Relevance

The development of 22 key recommendations provides actionable guidance for stakeholders and demonstrates clear translational value.

Major Concerns

1. Limited Empirical Validation

The study relies heavily on expert opinion and scenario modelling. While this is acceptable in foresight research, the absence of empirical or quantitative validation limits predictive reliability.

Suggested Revision

Clarify:

How expert consensus reliability was assessed.

Whether structured consensus techniques (e.g., Delphi methodology) were considered.

Potential methods for validating future projections.

2. Selection Bias in Expert Panel

Experts were recruited primarily through professional networks and iterative aggregation. This approach may introduce selection bias and limit representativeness.

Suggested Revision

Provide:

Clear inclusion criteria for expert selection.

Information regarding geographical and institutional diversity.

Justification for panel size relative to scenario complexity.

3. Generalisability Beyond French and European Context

The scenarios and recommendations are largely framed within European regulatory and occupational frameworks. Given the global nature of AI implementation, applicability to low- and middle-income settings or alternative labour systems is unclear.

Suggested Revision

Include discussion addressing:

Cross-regional variability in regulatory capacity.

Potential challenges in applying recommendations in different economic or governance environments.

4. Scenario Probability Assessment

The manuscript presents four contrasting scenarios but does not evaluate their relative likelihood or provide weighting criteria.

Suggested Revision

Consider including:

Probability ranking or plausibility scoring.

Risk-impact matrix comparing scenarios.

Sensitivity analysis of key variables influencing scenario formation.

Declarations

Potential competing interests: No potential competing interests to declare.