



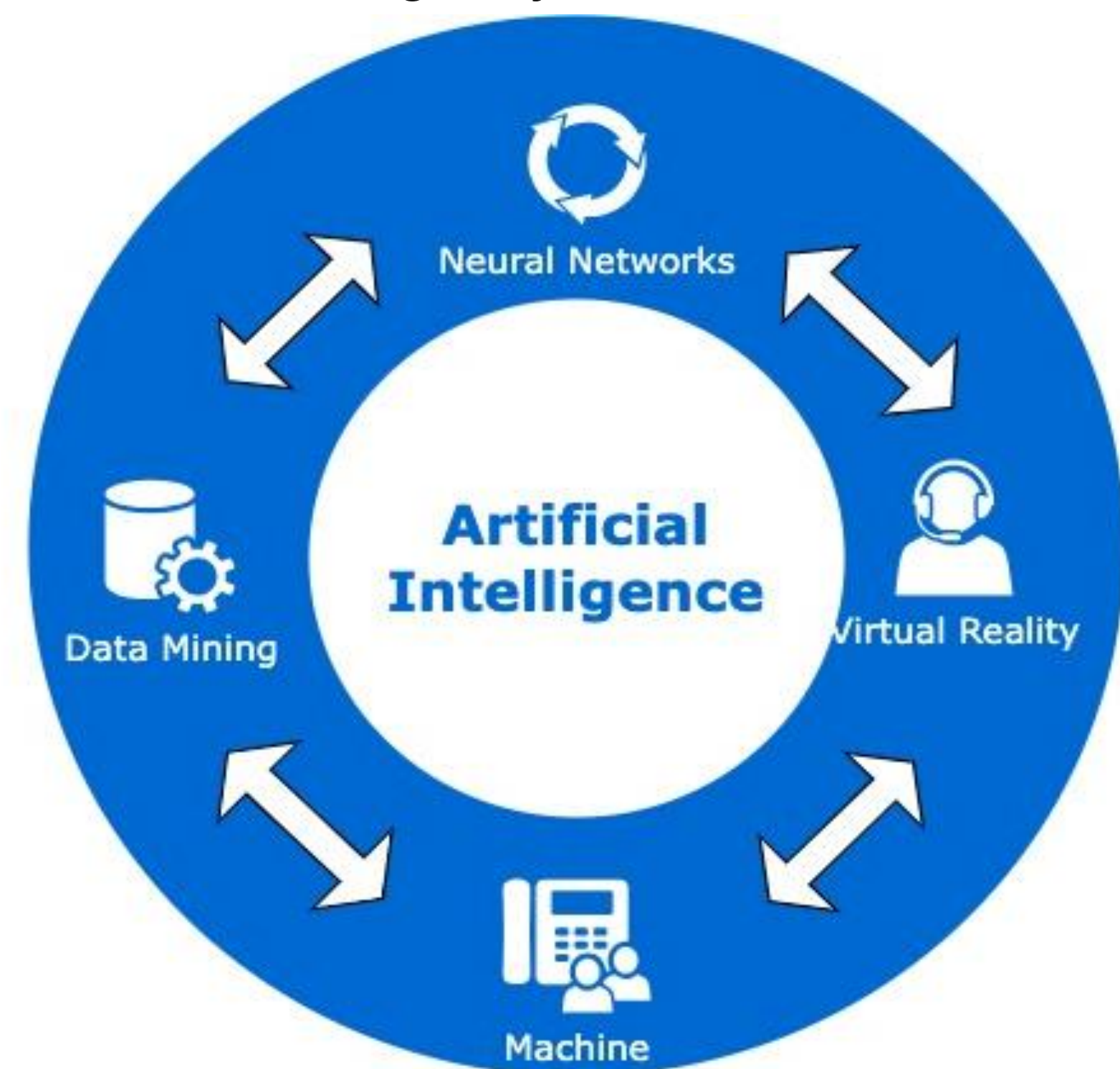
Trends in Female First and Senior Authorship in Regional Anesthesiology and Acute Pain Medicine Related Artificial Intelligence Research: A Narrative Review

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Background

"Artificial Intelligence (AI) is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable."¹

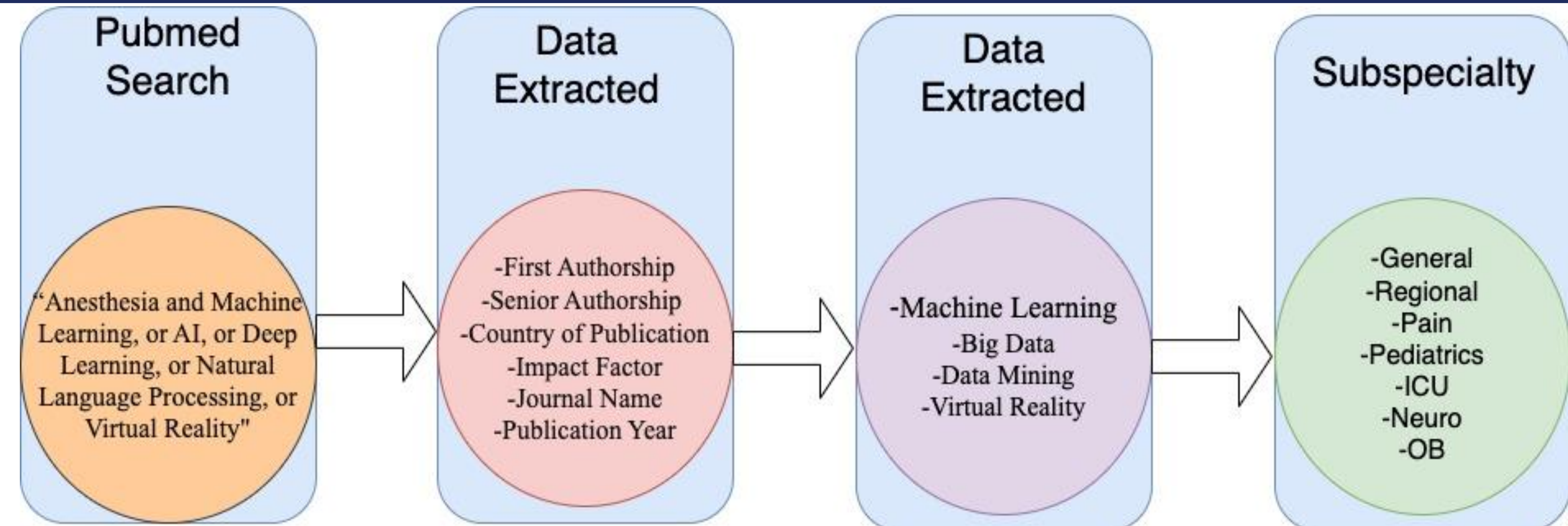


- Globally, 22% of the artificial intelligence (AI) workforce is female.²
- To date, limited data exists regarding gender representation disparity in healthcare applications of AI.

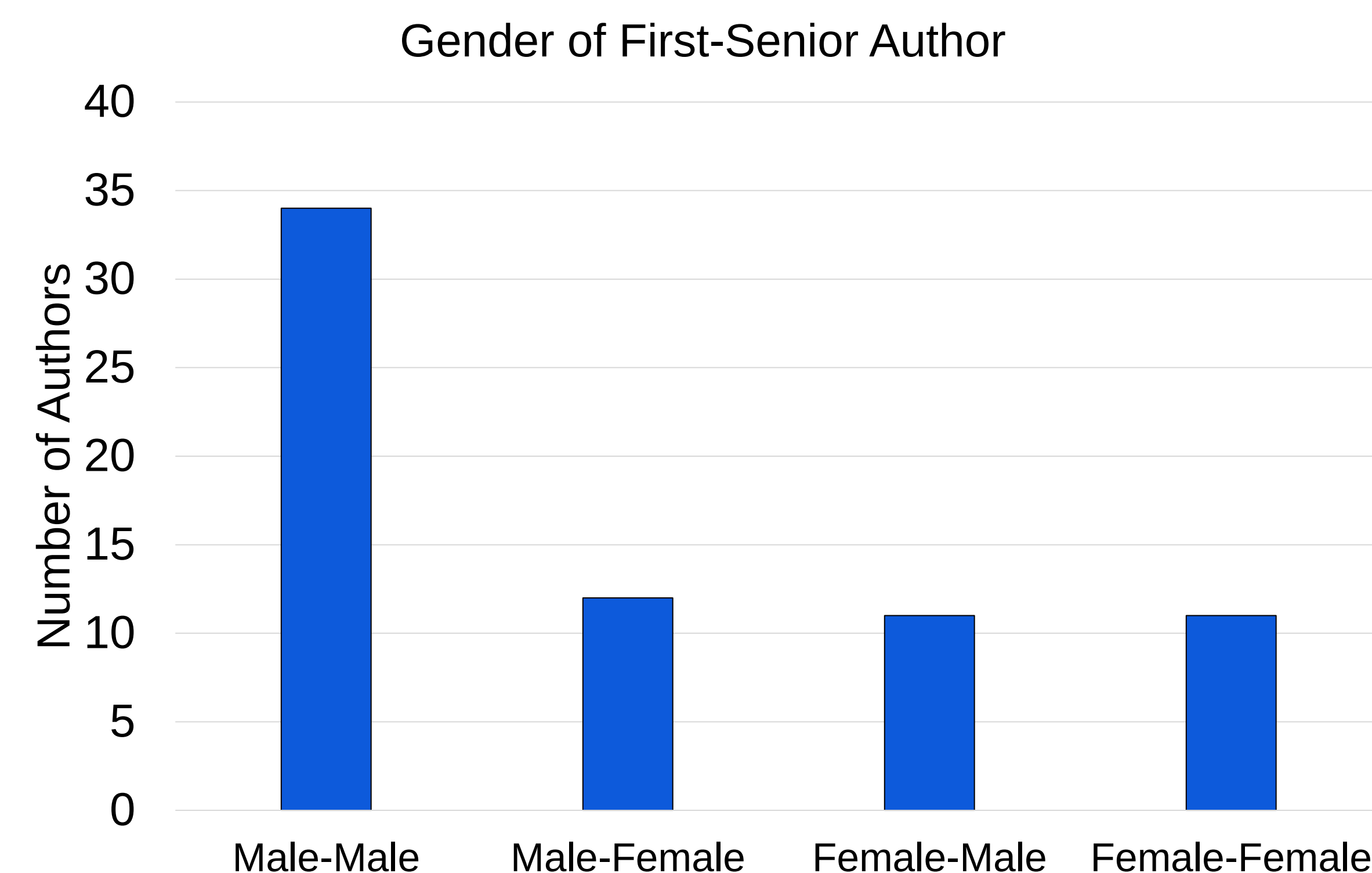
Purpose

This study aims to characterize the proportion of female first and senior authorship in publications related to AI research in regional anesthesiology and acute pain medicine

Methods



Results



Overall:

- 67.6% of first authors were male (n=46)
- 66.2 % of senior authors were male (n=45)
- 21 articles were indeterminate for gender

Regional/Pain (n=48)

- 34.1% of articles had both male first and senior authors (n=14)
- 24.3% had a male first author and a female senior authors (n=10)
- 21.4% had a female first author and a male senior author (n=9)
- 19.5% had both female first and senior author (n=8)

Discussion

Overall: Gender disparities exist in anesthesia related AI research. There are fewer female first and senior authors in subspecialties including regional anesthesiology and acute pain medicine.

Findings:

- The majority of first and senior authors in AI related anesthesia research are male.
- In the regional/pain medicine subset 66% of first authors were male and 34 % were female.

Conclusions:

- Despite the increasing number of female residents in anesthesia (~ 43.5%), the distribution of authorship in research does not reflect this closing gender gap.

Future Directions/Limitations:

- Utilize a larger sample size and search additional databases.
- Identify differences in authorship based on geographic location.
- Call for improved mentorship, collaboration, and inclusion to help combat these disparities.

References

1.IBM. What is artificial intelligence (AI)? IBM. Published 2023. <https://www.ibm.com/topics/artificial-intelligence>

2Stiftung Neue Verantwortung. (n.d.). *The AI gender gap*. Stiftung Neue Verantwortung. Retrieved January 13, 2025, from <https://www.stiftung-nv.de/publications/ai-gender-gap>