Natural Language Processing in Clinical Research Recruitment: A Scoping Review Enriched with Stakeholder Insights

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Figure 5: Thematic Mind Map

The map illustrates the perspectives of various stakeholders on the use of NLP technologies in clinical research recruitment.

Context

AI Hype

Human factors: individuality, importance of existence and human interaction recruitment

Intrinsic challenges of clinical research: equal access, compliance, risk of bias

Changeability

Opportunities

- Efficiency and speed of recruitment ↑
- Predictability and reliability in recruitment ↑
- Quality of recruitment ↑
- Patient-centered approach ↑

- In-house solutions
- Anonymization
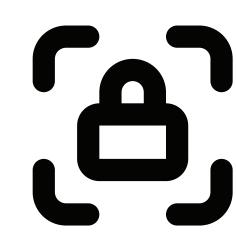- Open sourcing
- Impact on equity

Challenges

Tool Development →
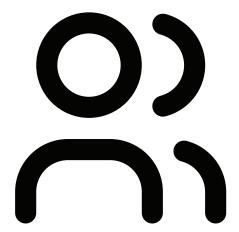- Data availability and quality
- Data protection
- Risk of bias

Tool Deployment
- Interoperability
- Performance
- Risk of misuse
- Trust issues

Suggestions

Extended data protection measurements

Moral agreement

Regulatory framework

Tool Development →
- Bias awareness
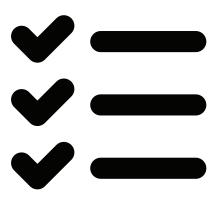- Risk assessment

Tool Deployment
- Implementation context
- Moderate to full transparency

Quality Control
- Human supervision
- Tools monitoring
- Support and reporting system

Training

Agreed standards

Risk-based approach