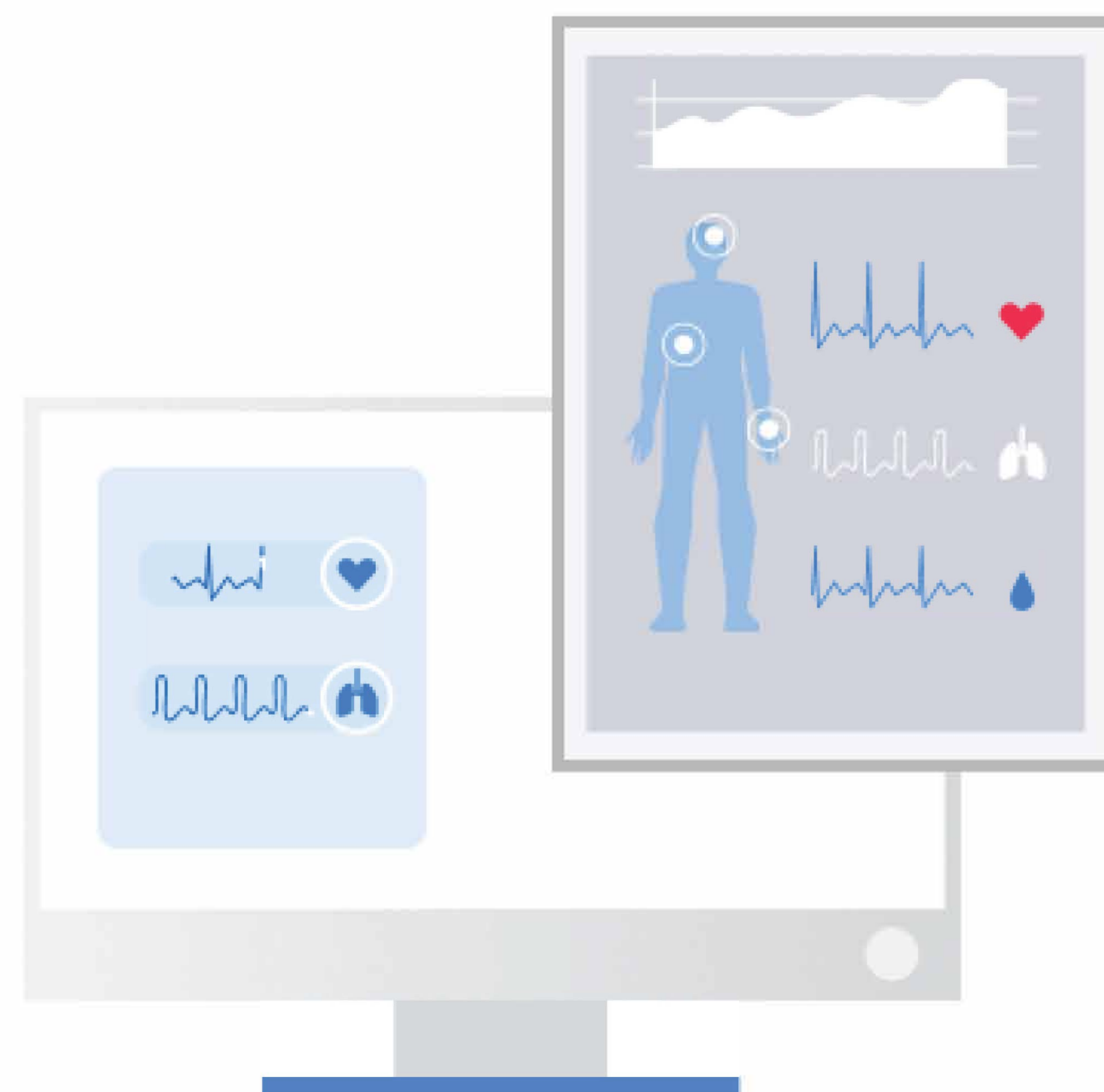**Natural Language Processing in Clinical
Research Recruitment: A Scoping Review Enriched with Stakeholder Insights**

Lara Bernasconi, Georg Avakyan, Frédérique Hovaguimian, and Regina Grossmann

Figure 2: Identified NLP Applications to Support Recruitment in Clinical Research (n = 47)

One article has been assigned to both categories "patient identification" and "creation of cohort queries."
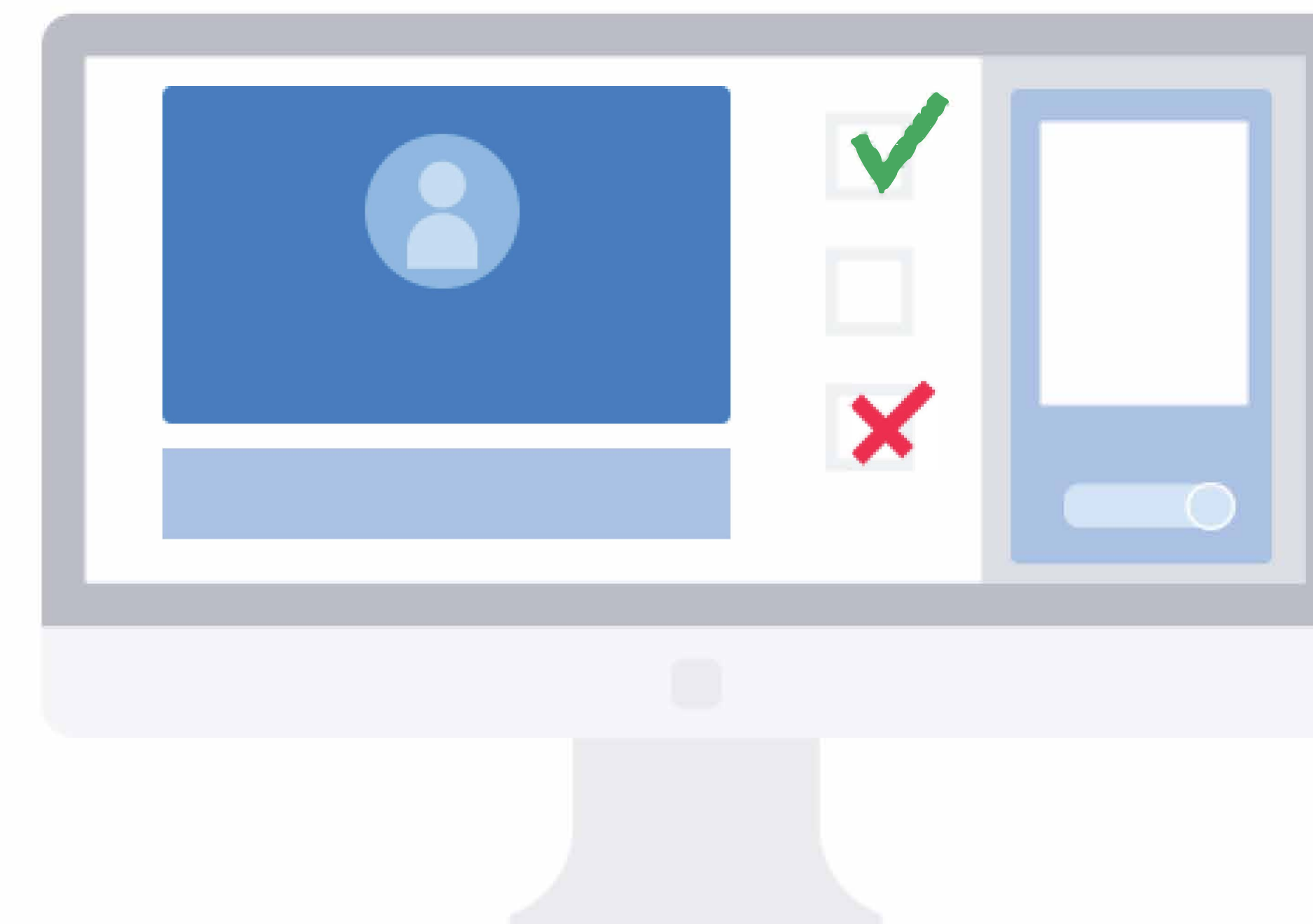
Screening from EHR

Patient identification: **20**

Bi-directional matching: **4**

Patient-centric trial recommendation: **3**
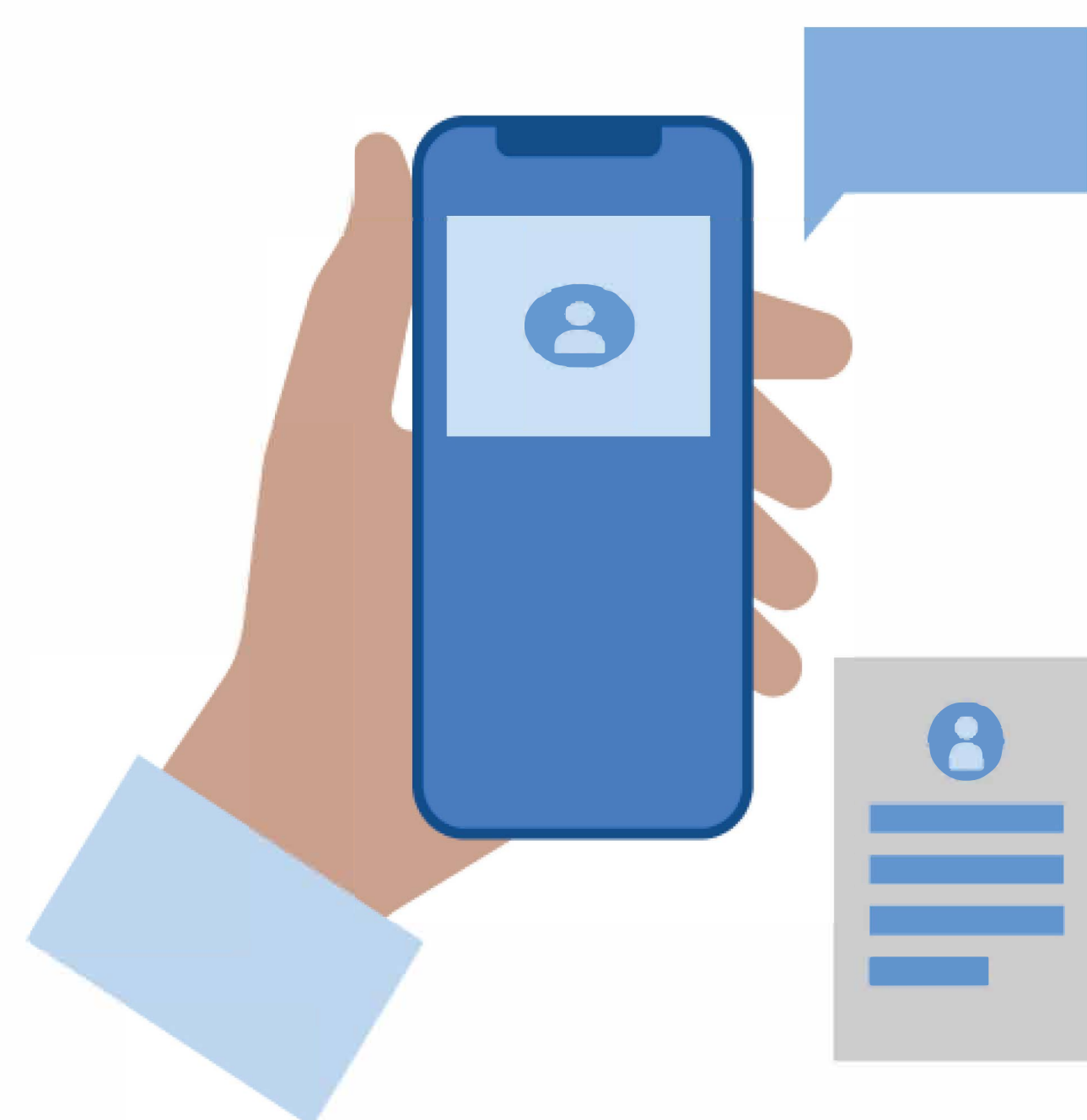
Prediction of screening success: **1**

Parsing of Eligibility Criteria

Creation of cohort queries: **8**
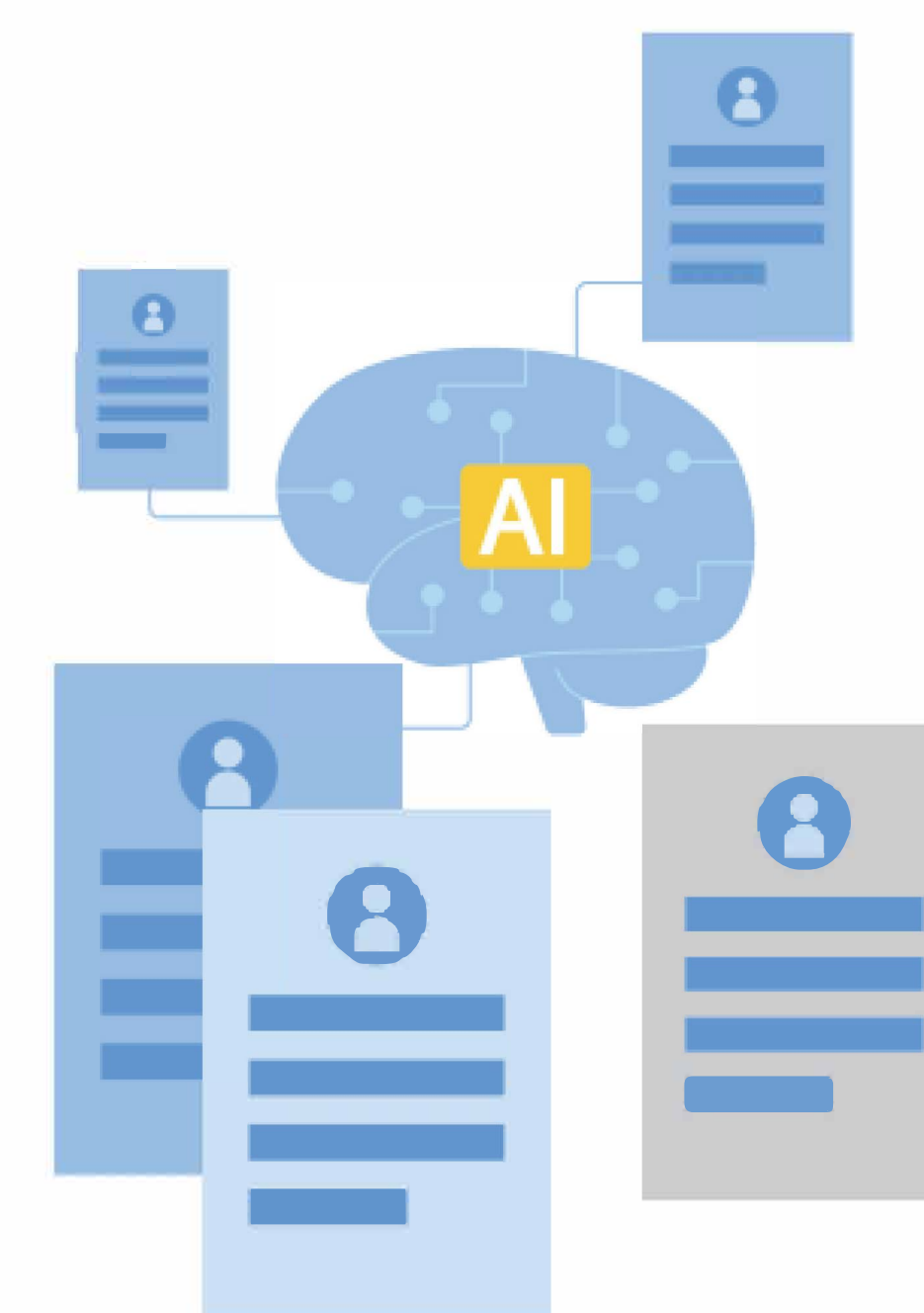
Structure/Code eligibility criteria: **5**

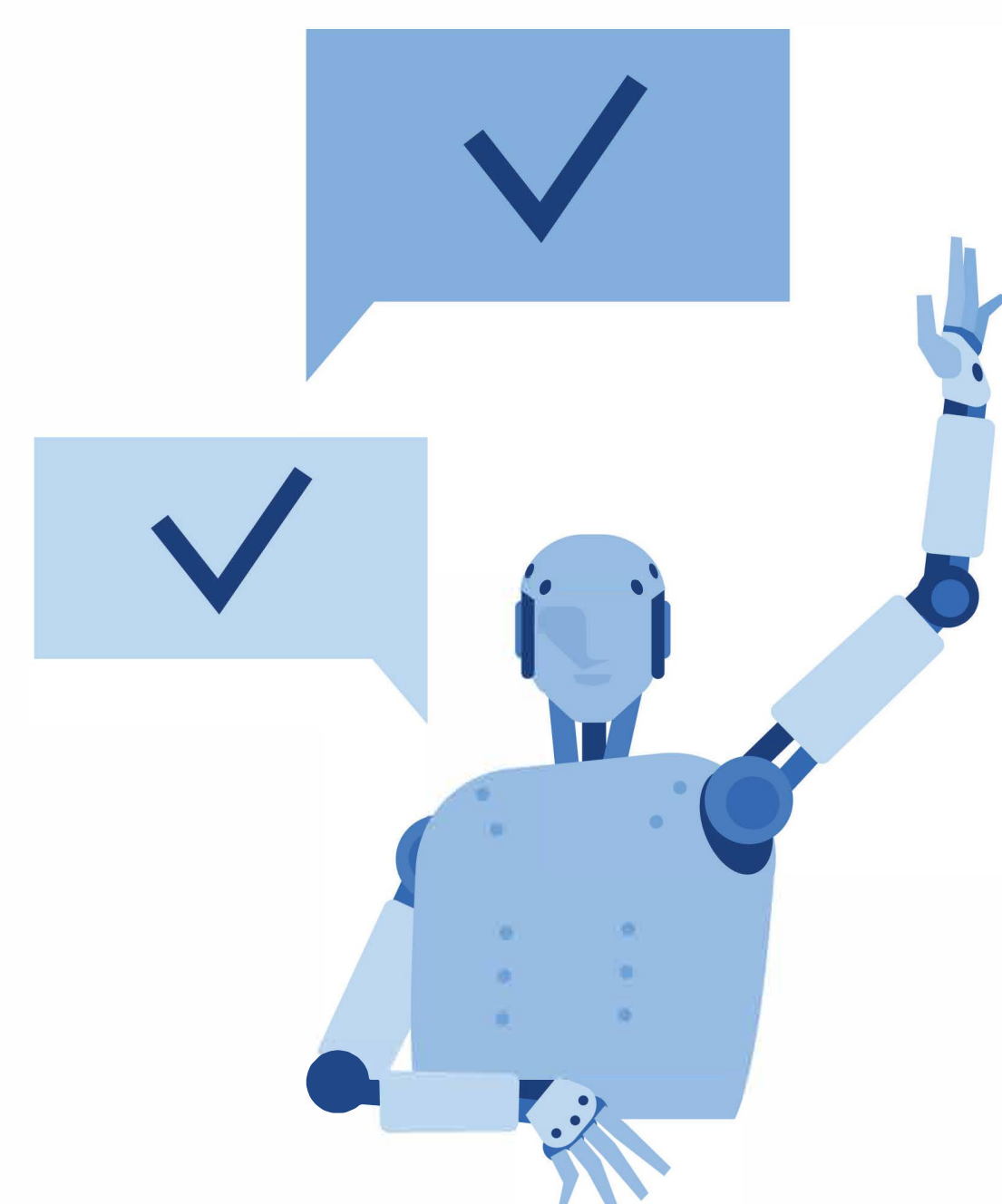Database criteria creation: **1**

Analysis of Social Media

Sentiment analysis for recruitment enhancement: **1**
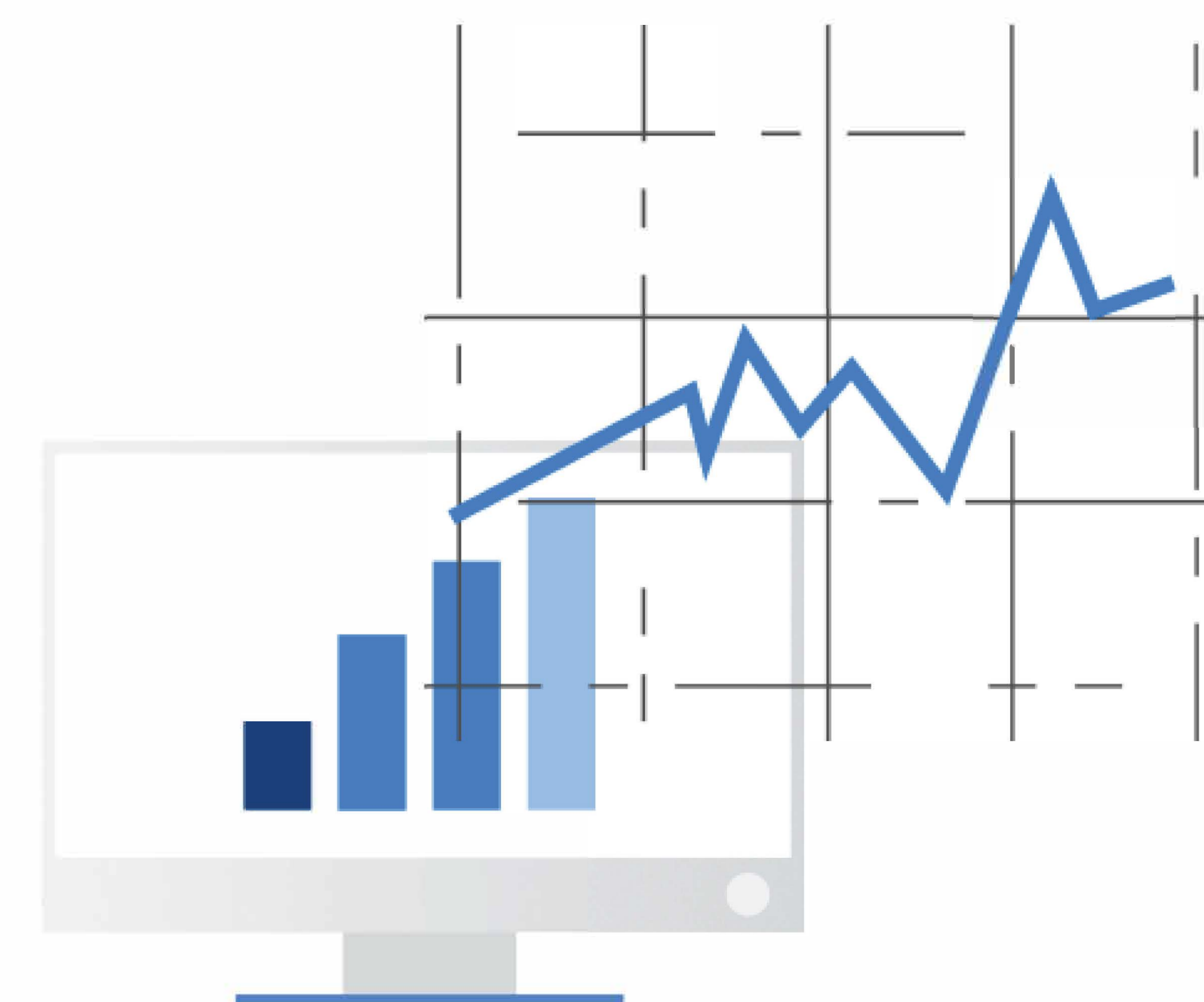
User calssification: **1**

Synthetic Data

Synthetic data: **2**

Screening Chatbot

Screening chatbot: **1**

Prediction of Enrolment Rates

Prediction of enrolment rates: **1**