

TREND REPORT - PRESENTATION

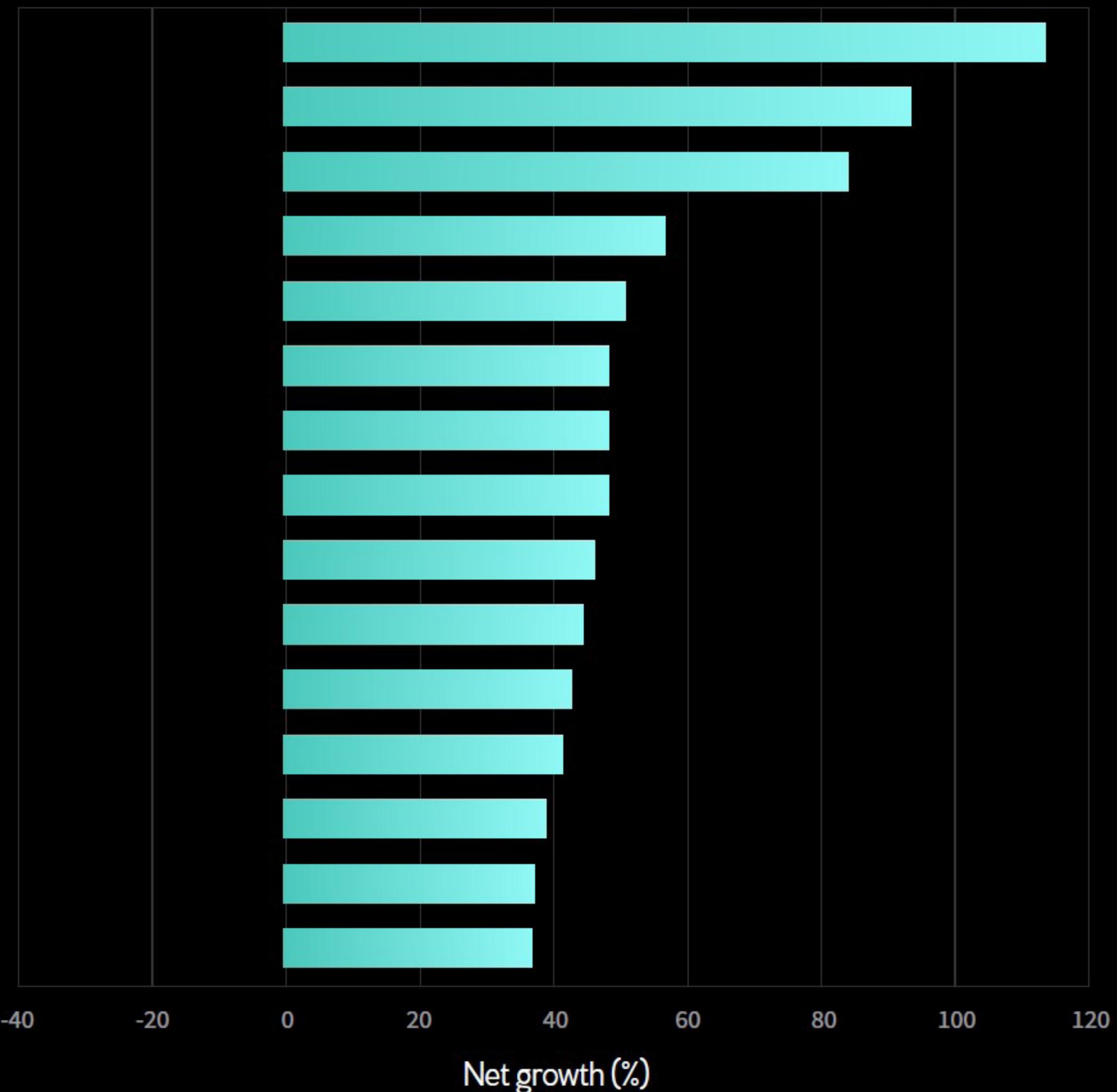
The future of hiring - AI Machine Learning in recruitment selection



by 2030,
170 million
new jobs will
be created,
while 92
million
jobs will be
displaced.

Top fastest growing jobs

- Big Data Specialists
- FinTech Engineers
- AI and Machine Learning Specialists
- Software and Applications Developers
- Security Management Specialists
- Data Warehousing Specialists
- Autonomous and Electric Vehicle Specialists
- UI and UX Designers
- Light Truck or Delivery Services Drivers
- Internet of Things Specialists
- Data Analysts and Scientists
- Environmental Engineers
- Information Security Analysts
- DevOps Engineer
- Renewable Energy Engineers



Top fastest declining jobs

Postal Service Clerks

Bank Tellers and Related Clerks

Data Entry Clerks

Cashiers and Ticket Clerks

Administrative Assistants and Executive

Secretaries

Printing and Related Trades Workers

Accounting, Bookkeeping and Payroll Clerks

Material-Recording and Stock-Keeping Clerks

Transportation Attendants and Conductors

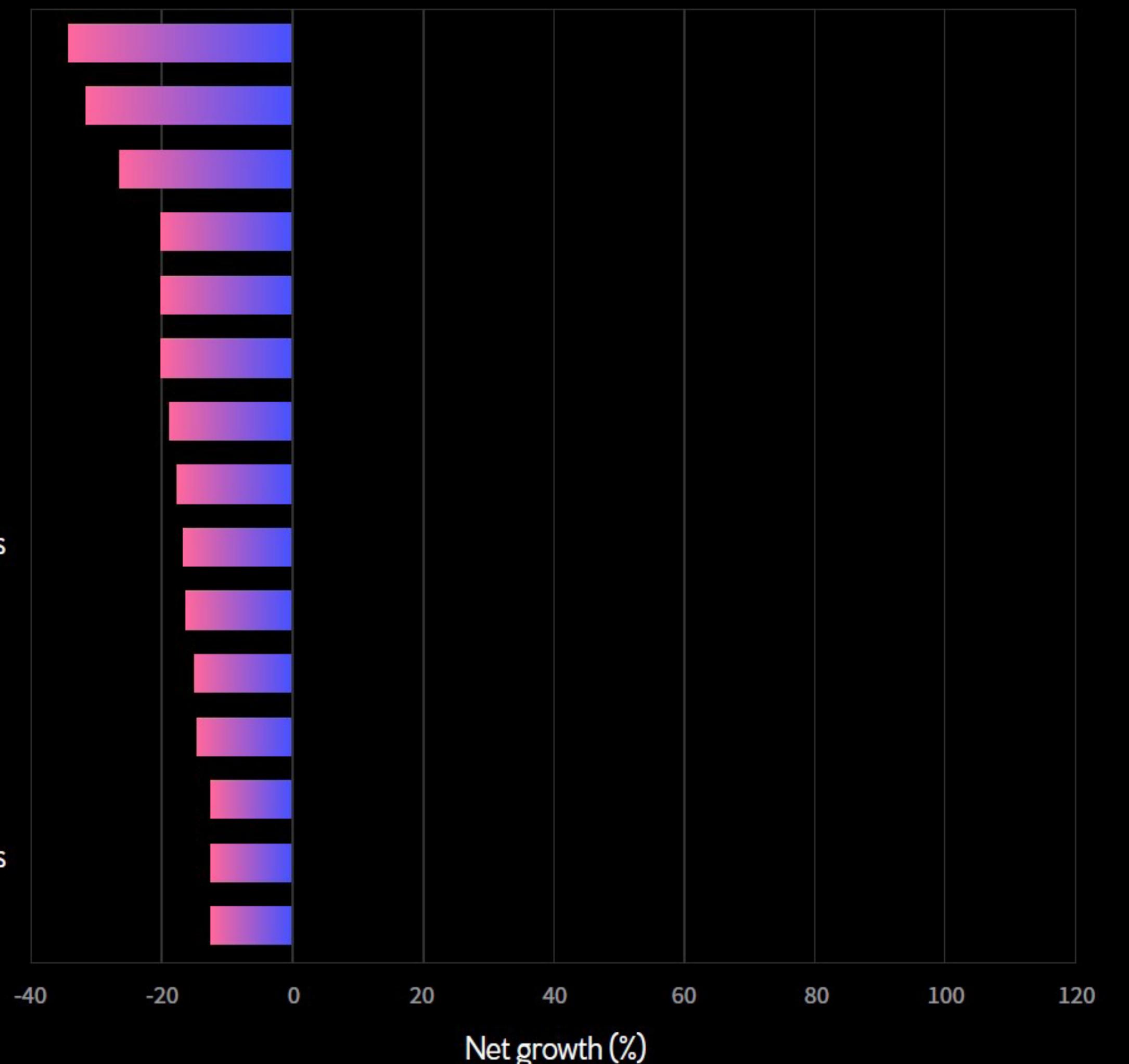
Door-To-Door Sales Workers, News and

Street Vendors, and Related Workers

Graphic Designers

Claims Adjusters, Examiners, and Investigators

Legal Officials and Secretaries



AI can identify transferable skills in candidates from diverse backgrounds, effectively bridging the gap between available positions and suitable talent.

Impact of AI on recruitment

1. Faster & more efficient hiring

AI automates tedious tasks like resume screening, interview scheduling, and candidate matching, making hiring much faster and more efficient.

Unilever has leveraged AI to streamline its hiring process, reducing the time to fill positions from four months to just four weeks, resulting in a 75% decrease in hiring time.

[Source: wikipedia.com](https://en.wikipedia.org/wiki/Unilever)

2. Shift to skill-based hiring

Traditional hiring based on degrees and job titles is shifting toward a more skill-based approach. AI helps assess actual competencies rather than just credentials.

3. Enhancing diversity & inclusion

When implemented correctly, AI can help create fairer hiring processes by reducing human biases. However, as we will see, this is not always the case.

Benefits of AI	Share of respondents
Saves time	67%
Removes human bias	43%
Delivers best candidate matches	31%
Saves money	30%

[Source: demandsage.com](https://www.demandsage.com/)

```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LogisticRegression
from sklearn.metrics import classification_report

# Example data with a bias favoring male candidates
data = {
    'years_experience': [1, 2, 3, 4, 5, 6, 7, 8, 9, 10],
    'gender': ['male', 'male', 'male', 'male', 'female', 'female', 'female',
               'female'],
    'hired': [1, 1, 1, 1, 1, 0, 0, 0, 0, 0] # 1 = hired, 0 = not hired
}
# Create DataFrame
df = pd.DataFrame(data)

# Convert categorical variable 'gender' to numerical values
df['gender'] = df['gender'].map({'male': 1, 'female': 0})

# Define features and target variable
X = df[['years_experience', 'gender']]
y = df['hired']

# Train-test split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

# Train logistic regression model
model = LogisticRegression()
model.fit(X_train, y_train)

# Make predictions
y_pred = model.predict(X_test)

# Evaluate results
print(classification_report(y_test, y_pred))
```

Threats & challenges

1.

AI bias in hiring

One major concern is bias in AI models. If an AI system is trained on biased historical data, it can reinforce discrimination instead of reducing it. A well-known example is **Amazon's AI hiring tool, which unintentionally penalized female applicants.**

2.

Lack of transparency 'Black boxes'

Another challenge is the lack of transparency. Many AI-driven hiring tools function as 'black boxes,' meaning employers and candidates don't fully understand how hiring decisions are made.

3.

Legal & ethical compliance

AI in recruitment falls under strict regulations like the EU AI Act and GDPR, which classify AI-based hiring tools as 'high risk.' Companies must ensure compliance to avoid legal and ethical violations.



FAVORED DEMOGRAPHICS

“If past recruitment practices favored certain demographics, the machine learning model might continue this trend, disadvantaging other groups.”

Opportunities for Improvement

1. Bridging skill gaps

AI helps companies match candidates based on skills rather than experience, which can help address labor shortages.

2. Supporting workforce planning

Predictive analytics allow businesses to optimize workforce planning by forecasting talent needs and improving retention strategies.

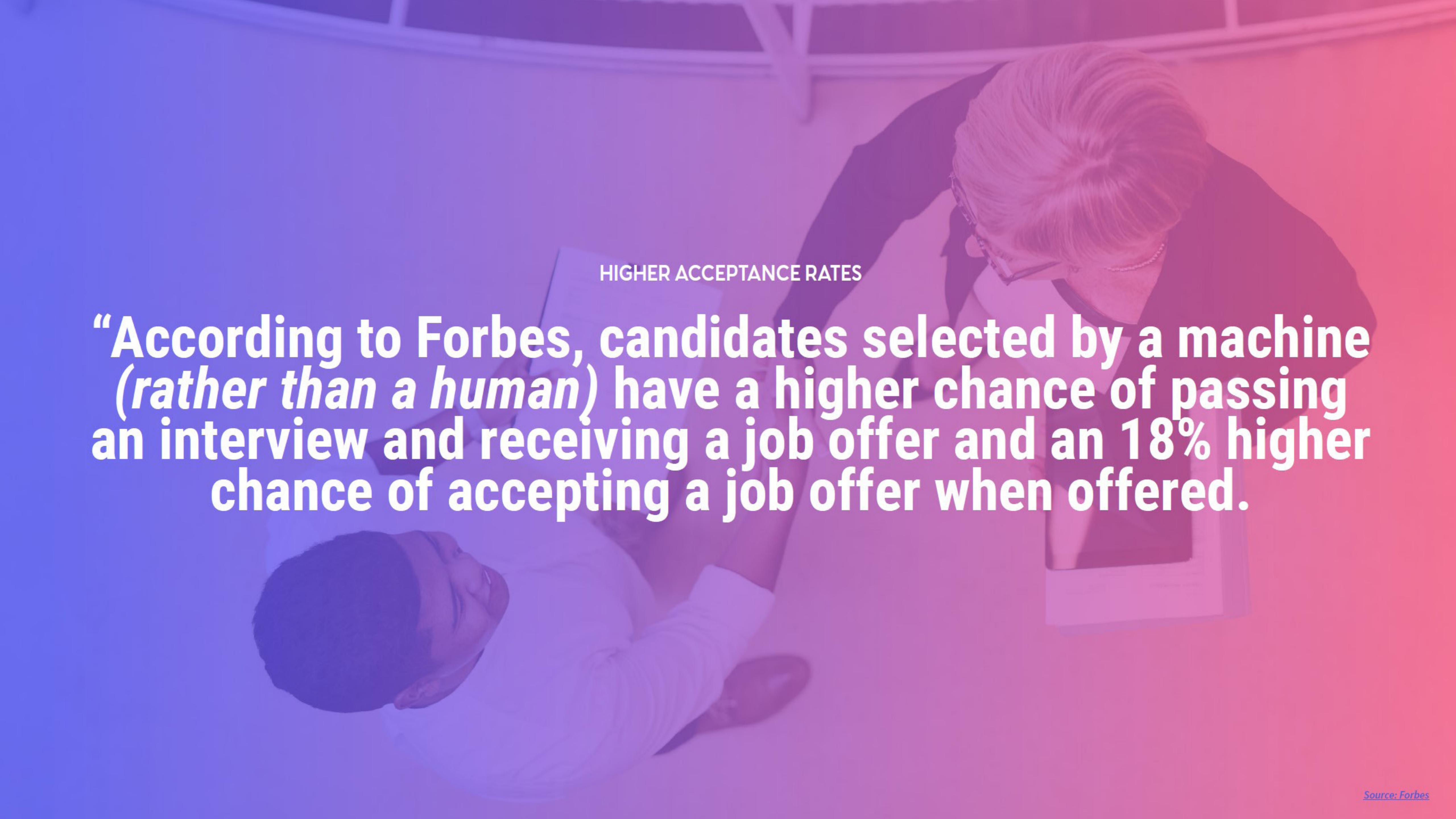
3. Enhancing candidate experience

AI chatbots and virtual assistants streamline the hiring process, providing instant responses and improving engagement with job seekers.



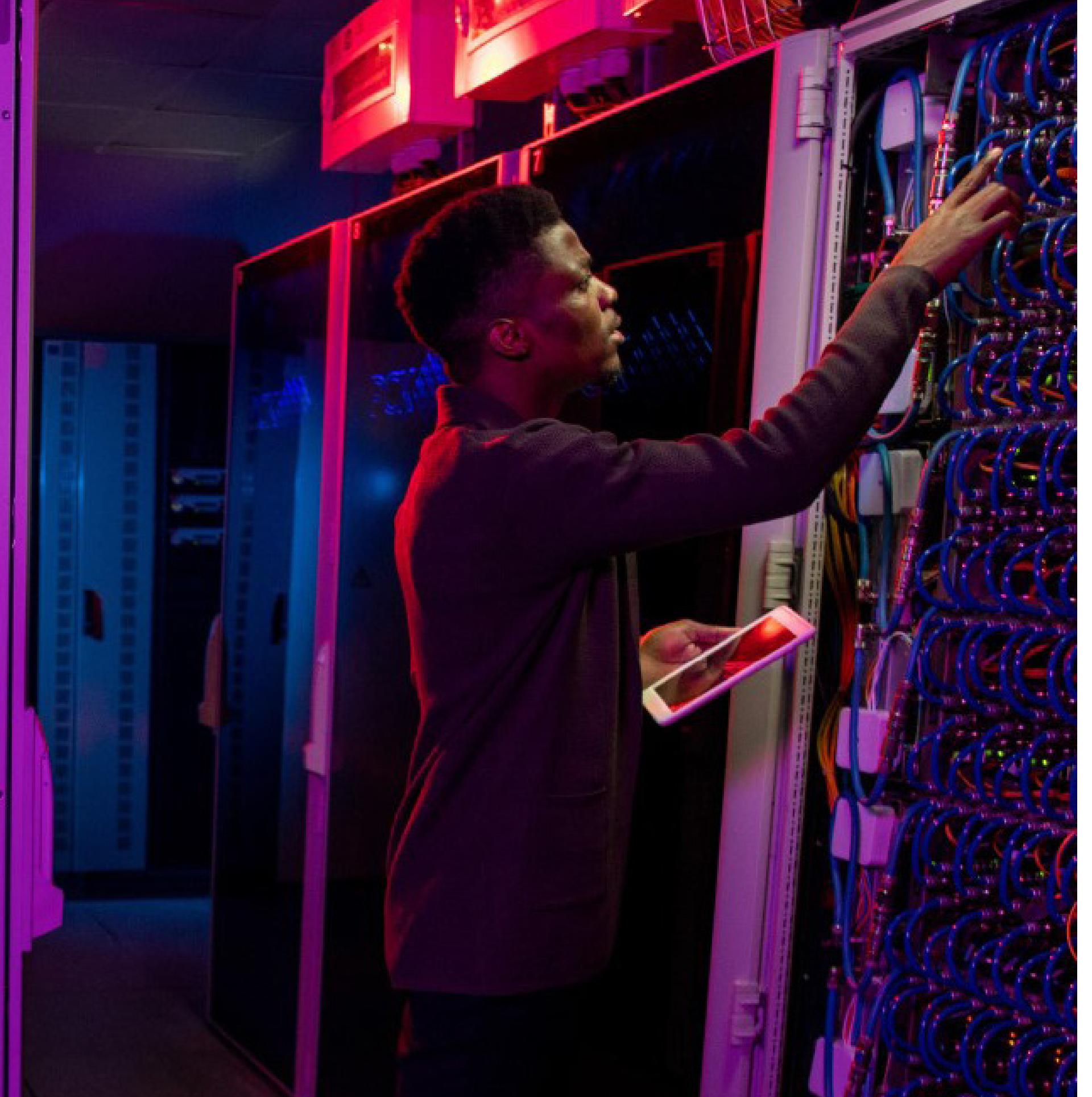
"AI can identify transferable skills in candidates from diverse backgrounds, effectively bridging the gap between available positions and suitable talent."



A woman with blonde hair tied back, wearing a dark business suit and a pearl necklace, is looking down at a tablet device she is holding in her hands. The background is a blurred office environment with other people and desks.

HIGHER ACCEPTANCE RATES

“According to Forbes, candidates selected by a machine (*rather than a human*) have a higher chance of passing an interview and receiving a job offer and an 18% higher chance of accepting a job offer when offered.



Data centers supporting AI operations require substantial electricity for processing and water for cooling, leading to increased greenhouse gas emissions and water usage

Source: unep.org

Environmental Concerns

1. High energy consumption data centers

AI models require extensive computational power, increasing energy consumption and carbon emissions from data centers

Organizations must prioritize energy-efficient AI models and green data centers to minimize environmental impact.

2. Reduced paper waste & travel emissions

On the positive side, AI helps reduce paper waste and unnecessary travel for in-person interviews, contributing to sustainability efforts.

Key Recommendations

1. **Implement bias mitigation strategies**

Companies should audit AI models for fairness and continuously refine algorithms to prevent discrimination.

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AI hiring decisions must be explainable so candidates and employers understand why a certain candidate was selected or rejected.

3. **Align with legal regulations**

Organizations must comply with laws such as the EU AI Act and GDPR to ensure ethical AI usage.

4. **Maintain human oversight**

Finally, AI should support—not replace—human decision-making. Recruiters must have the final say to ensure fair and balanced hiring.

Questions?