

How does machine learning affect recruitment in the workplace?

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What is machine learning?

- Sub field of Artificial Intelligence

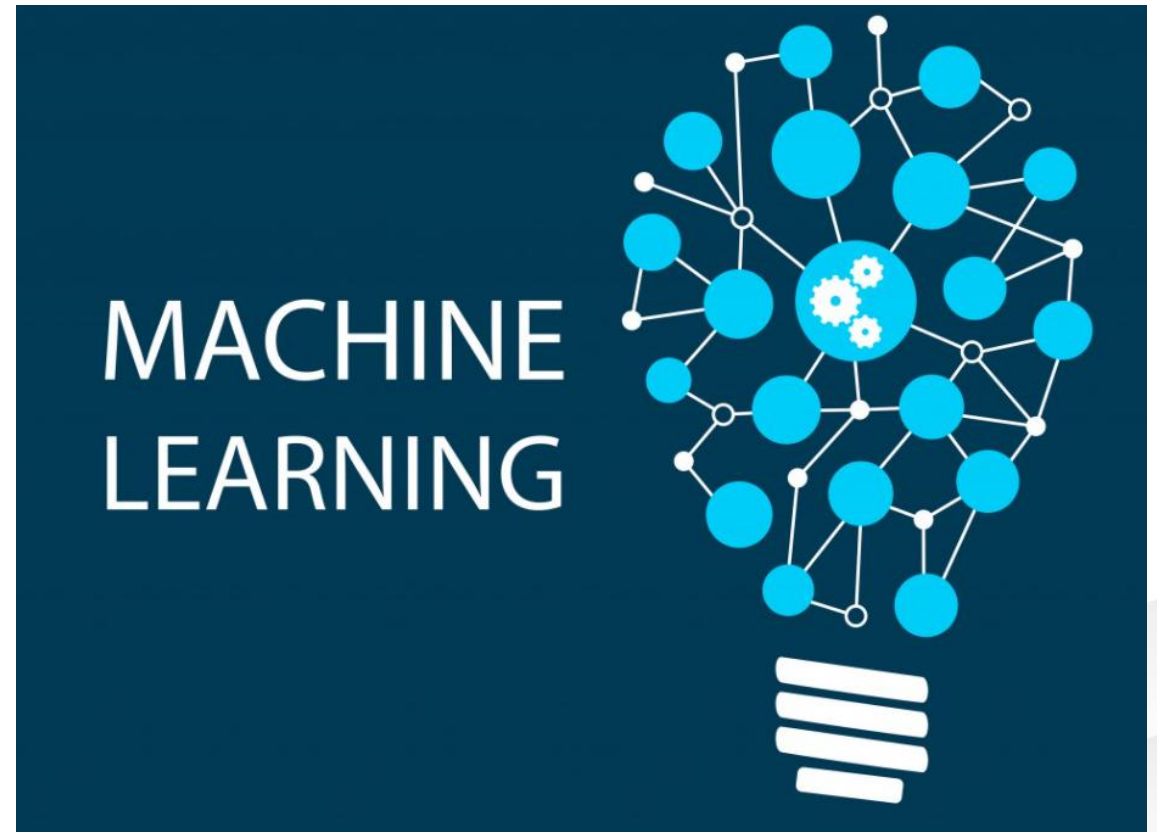
Bersin, J. (2020) Founder and Principal at Bersin by Deloitte, mentioned that:

Machine learning tools and algorithms can identify and predict patterns quickly that can help to make decision.



What is machine learning?

- The study of computer algorithms
- 3 different types of machine learning:
 - Supervised Learning
 - Unsupervised Learning
 - **Reinforcement Learning**



Human Resources Challenge: Recruitment

Traditional recruitment:

- make decisions in 60 seconds

Recruiting Yield Pyramid



➤ *Recruiting yield pyramid*

- The historical arithmetic relationships between recruitment leads and invitees, invitees and interviews, interviews and offers made, and offers made and offers accepted.

Figure 1: Recruiting Yield Pyramid



How does machine learning affect recruitment

1. Using machine learning in screening

- Screening: Using algorithms to screen tons of resumes to find the right candidates
- Find out the top performers (Globally)
- Analysis video interviews to inform us who will be succeed.
- Eliminate educational and interview bias



How does machine learning affect recruitment

2. Training to employee

- High cost in training and time consuming
- What can the employee learn?
- Using algorithms: pull out data quickly and sort out in different parameters

3. Reducing staff- turnover

- Predict future sources of turnover
- Address individual or issues in the department

4. Handling tedious work, increased efficiency of HR operations

- Administration work
- Centralized company information like policies, benefits and company procedures



How does machine learning affect recruitment

5. Lower recruiting cost

- Lower average cost- per- hire
- Lower cost in head hunter agent; referral fee

6. Organization image / branding

- Branding is important in recruitment
- More people get to know the company

7. Provide comments in specific risk in some events

- Generating risk score in real time for abnormal activities



Challenges to apply machine learning in workplace

1. Security breaches

- Data leakage and theft lead to security risks.

2. Standards and regulations control

- No standard and best practices → difficulty in networking, configuring and managing in machine learning design

3. Privacy

- Personal behaviour is being monitored



Challenges to apply machine learning in workplace

4. **Machine learning cannot work without “Training data”, can only learn from the past**
5. **Cannot apply in smaller scale of companies or all industries**
6. **High cost** to apply machine learning in recruitment
7. **Eliminate biases** in recruitment process



Challenges to apply machine learning in workplace

8. **Low penetration rate** to apply machine learning in workplace

9. **No guarantee tech** is constantly evolving and changing

10. **Employers must be educated** in machine learning tools



Can recruiter be replaced by AI?

- **Comments from Human Resources professionals**

- a. Burton, S (2018) Founder and CEO of AI recruiting platform HiringSolved

- Machine learning: help company handling tons of applications.
- Significant value to HR dept but still need the human element

- b. He, E (28) Senior Vice President of Human Capital Management product marketing at Oracle

- Operational and process-oriented functions will be replaced
- HR managers / recruiters will NOT be replaced
- Focus on strategic planning like personalize coaching, assist to build up career path, improving employee experience and etc



Can recruiter be replaced by AI?

c. Blocker, S (2020) Vice President of talent acquisitive at NBCUniversal

- Predict outcomes
 - Improve time in hiring but human judgement needs to support AI
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- AI cannot cover psychological and emotion like ambition, passion and some soft skills

Recruitment is people hiring people,

human interaction is required



Recommendations / Suggestions

- Choose AI solutions carefully
- Relate to the impact on your goals and return on investment
- Expected improvement of an AI solution against the cost



Recommendations / Suggestions

- Monitor the system closely
- Tool or solution have a track record of success in similar size of organization



Recommendations / Suggestions

- SAP, software company in Germany
 - Machine learning to help eliminate bias in hiring and employee performance reviews
- Google
 - Algorithm to review rejected applications



Conclusion: HRM Road Ahead

- Machine learning / AI are NOT wholly replace human beings in the HR management
- Business digitalization
- Spend more time in creative endeavors and to innovate
- Machine learning can make huge improvements in productivity, employee performance and employee well being



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