AI-Assisted Recruiting and Screening: Tools, Processes, and Strategies

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SCCI 2020

AI Video Interview:
A Glimpse at HireVue

Jet Wang

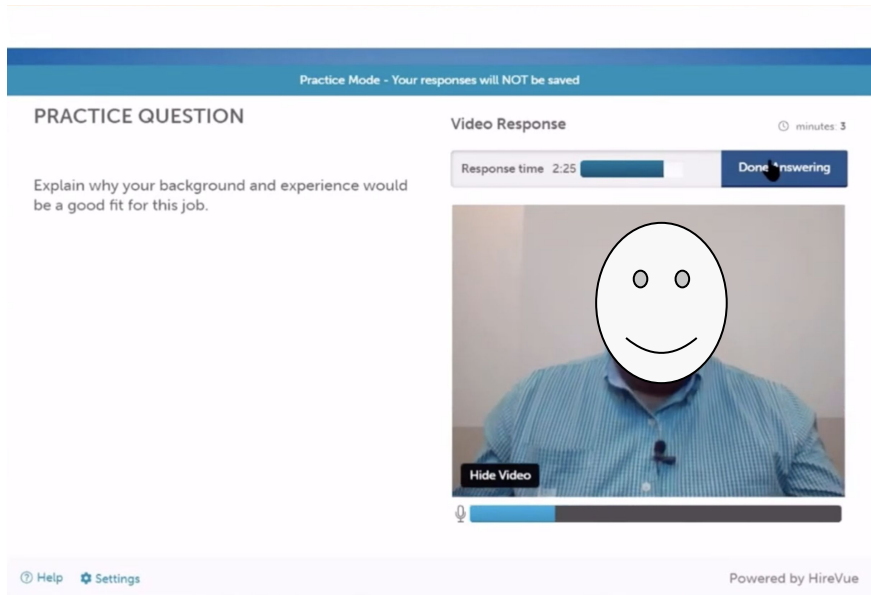Ph.D. student in Industrial & Organizational Psychology

NC State University
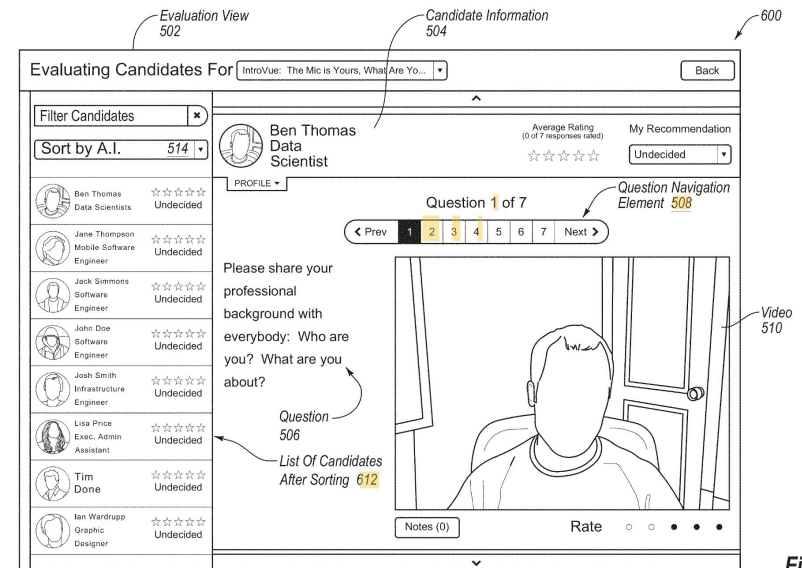
Why Do We Do Interviews?

Job relevant knowledge, skills, abilities, and others (KSAOs)

- If you see them in the selection tools, you anticipate to see them in jobs, which then turns into high performance.

How Does It Look Like?

Fig. 6

User Interface: **interviewee**

User Interface: **interviewer**

Mechanism of AI Evaluation

Data:

- Response to the questions, word of choice, facial expression, tone… can be anything from the video

Method:

- Using the video interview responses to learn from the top performers in the field
- Generating key features for top performers, like the emotions, traits, thinking style, etc.
- Compare candidates with top performers

Benefits

- Save time and money

- Standardize the recruitment procedures

- Reduce the bias to some extent

Concerns

Transparency

- Still the black box to recruiters,candidates, and trainers

Accuracy

- Job relevance of those features?
- Other job irrelevant confounding factors?
- Representativeness of top performers?

Privacy

LinkedIn Optimization in the Age of Artificial Intelligence

Chenxing Xie

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LinkedIn Profile as a New Genre

From Resume to LinkedIn Profile

- Resume:
    - Paper or electronic-based
    - Presents a person's background, skills, and accomplishments
- LinkedIn profile[1]
    - Online profile
    - Presents a general history of your professional experiences and achievements
    - Adds a personal touch that a typical resume or CV may not reflect

[1] https://www.linkedin.com/help/linkedin/answer/15493/your-linkedin-profile-overview?lang=en

The Niche in LinkedIn Optimization in the Era of Artificial Intelligence

The wide use of LinkedIn Profile in job seeking

- LinkedIn is the leading global social networking site for professionals, with more than 259 million users in more than 200 countries and territories[1]

- As 94% of recruiters use LinkedIn to search for potential candidates[2], creating an effective LinkedIn profile becomes a critical task for job seekers

Research gap in LinkedIn optimization

- Many scholars have already conducted research on traditional strategies for LinkedIn optimization [3,4]
    - Verbal and visual content
    - Search Engine Optimization (SEO)
- There exists a scarcity of research in AI-based LinkedIn optimization

[1] https://www.linkedin.com/help/linkedin/answer/15493/your-linkedin-profile-overview?lang=en
[2] Rangel, L. (2014). Writing a LinkedIn profile to get found by recruiters. *Career Plann Adult Dev J*, *30*(2).
[3] Berk, R. A. (2013). LINKEDIN TRILOGY: Part 2. Creating an Eye-Popping Profile to Be Found and Network with LinkedIn Optimization. *The Journal of Faculty Development*, *27*(3), 63.
[4] Cooper, J. M. (2014). HUMANIZING the LINKEDIN PROFILE Why Resume Content Isn't Enough. *Career Planning and Adult Development Journal*, *30*(2), 117.

Features of AI-based LinkedIn System

Talent Search System (LinkedIn advanced recruiting system)[1]

- Intelligent query understanding
- Mutual interest matches between recruiters and candidates
- Personalized preference models for recruiters
- Intelligent professional network

[1] https://engineering.linkedin.com/blog/2019/04/ai-behind-linkedin-recruiter-search-and-recommendation-systems
Image: https://vengreso.com/blog/new-linkedin-magnet-uses-ai-create-engagement

Concerns Brought by AI

Privacy Concern

- AI can be used to portray the job seekers, which may cause personal information leakage

Ethical Concern

- Employers may use AI-based system to infer job seekers' confidential information according to their profiles, which may bring discrimination towards them

Accuracy Concern

- AI-based "black box" models may cause information mismatch, leading to competent job seekers being filtered out

Implications & Future Studies

Pedagogical implications

- Model profiles after current employees in target companies
- Use standard words in the profiles
- Connect with experts in the target field
- Follow professional groups

Academic implications

- How technical communication can play a role in AI-based recruiting
- The ethics in AI-based Recruiting needs further investigation

Use Social Profiling for Job Screening: Benefits, Challenges, and Implications
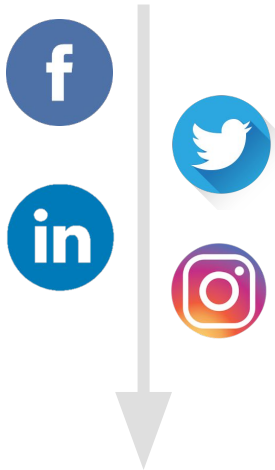
Yeqing Kong | @YeqingKong

Ph.D. candidate @ CRDM

NC State University

What is Social Profiling?

PROFILING

SOCIAL PROFILING

" the use of technology and algorithms to generate an individual's profile that can be utilized in *making recommendations* and *decision making* (Kanoje et al., 2016) "

" the process of modeling user profiles using publicly shared data on *online social networks* (Bilal et al., 2019) "
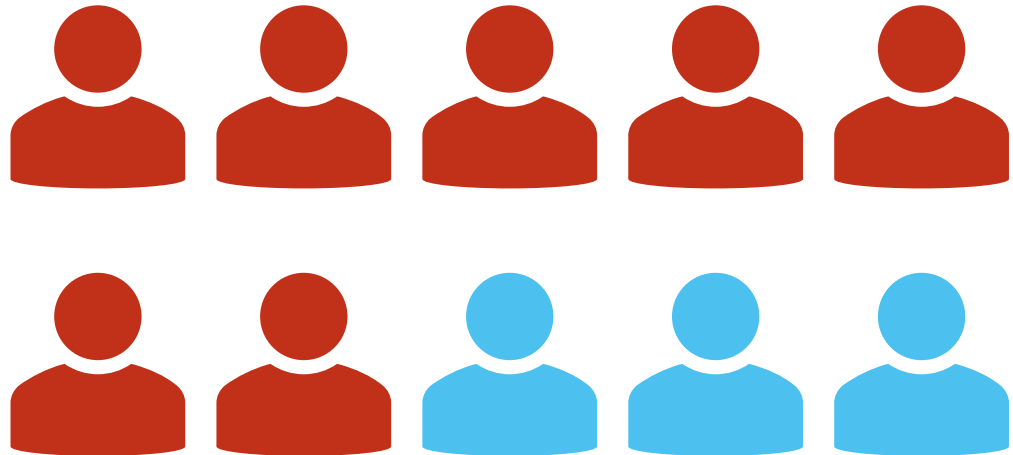
Personal Information

Risky Rebecca

Scan completed on: October 8, 2018

Facebook: 22 posts
Twitter: No Account
Instagram: No Account

Summary

5

Low Risk — High Risk

Very High Risk

Bullying / Harassment:	5
Disrespectful / Bad Attitude:	5
Explicit Content:	1
Drug Abuse:	5

Report Summary

Initiate A New Scan

Bullying / Harassment: Very High Risk

Disrespectful / Bad Attitude: Very High Risk

5

Low Risk — High Risk

Very High Risk

Disrespectful / Bad Attitude

Being disrespectful or having a bad attitude is when an individual demonstrates a lack of respect, esteem or courteous behavior.

Explanation

This person has both a very high frequency of posts that indicate disrespectful / bad attitude, and/or a very high severity for disrespectful / bad attitude.

What does this score mean?   Show Flagged Posts

Benefits of Social Profiling

01 Provide data-driven insights on candidate assessment

02 Enable organizations to reduce uncertainty about candidates
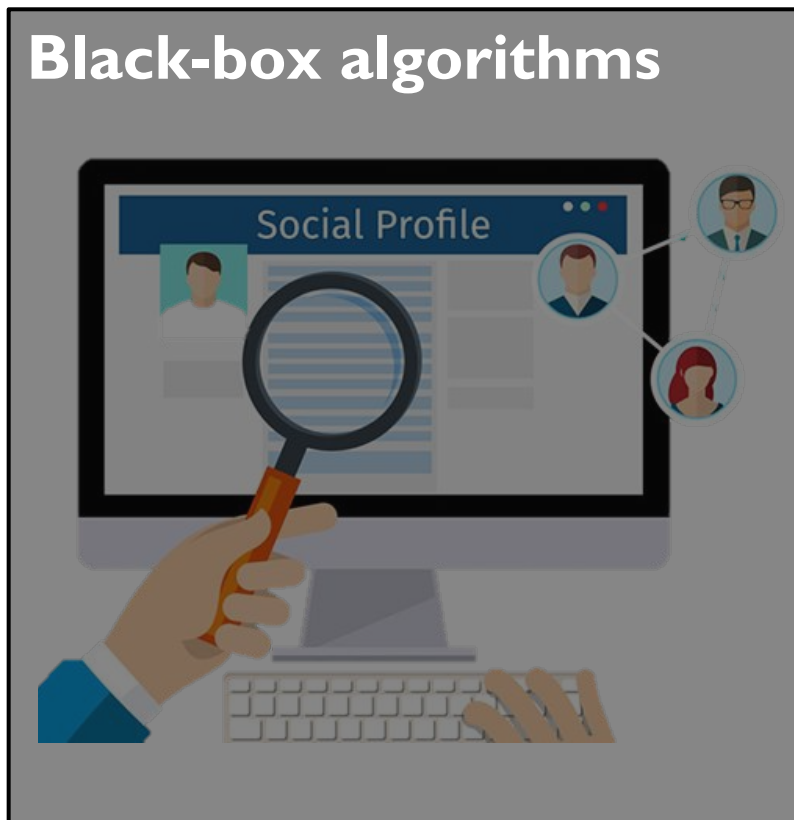
03 Save time, money, & resources

04 Reduce human bias; make the evaluation more consistent

Problems & Challenges

Black-box algorithms

- Legal and regulatory risks

- Potential for invasion of privacy

- Extended discriminations & prejudice against persons and groups

- Individuals' self-censorship and self-oppression

Recommendations & Implications

Organizations

- Keep candidate research legal
- Develop social profile screening policies
- Provide training
- Review & audit social media presence

Recruiters

- Give job applicants fair notice
- Be selective when using information obtained from personal social media sites

Job seekers

- Make professional profiles visible online
- Cultivate a positive online persona

Instructors

- Educate students about strategic placement of personal information on SNS

The Ethical Implications of Neuroscience Games

Hunter Jones

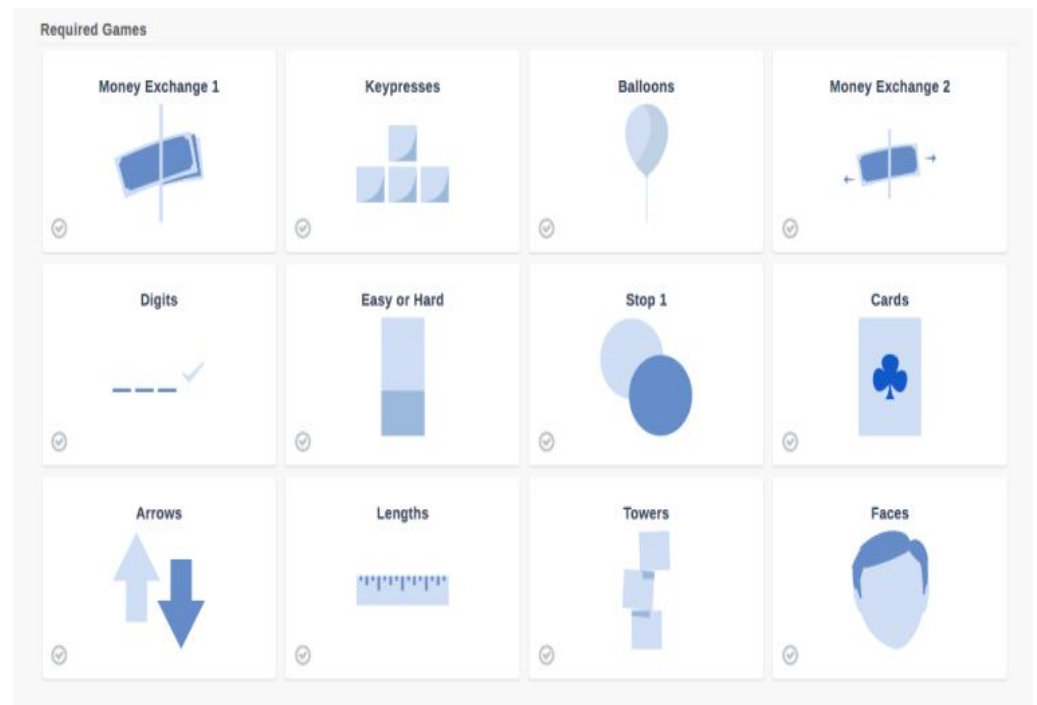M.A. in English Literature

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Neuroscience Games

Neuroscience games are designed to test cognitive aptitude in a variety of areas.

These include:

- Decision Making
- Risk Taking
- Memory

Required Games

Money Exchange 1	Keypresses	Balloons	Money Exchange 2
Digits	Easy or Hard	Stop 1	Cards
Arrows	Lengths	Towers	Faces

Benefits of the Gamified model

- Neuroscience games present an attractive model for those who grew up in the era of computerized games.
- While still a performative action this process removes face to face confrontation.

Proposed Benefits

- Eliminates several potential biases
- Little personal information is involved
- Because the games are not played in front of an audience there is no judgement based on looks or posture at least at this stage

Pymetrics

Provides multiple gameplay accommodations including for those dealing with:

- ADHD
- ADD
- Color Blindness
- Dyslexia

Use of these accommodations is kept secure and employers are not made aware of these features being activated.

Pymetrics

- Tests cognitive factors to determine a candidate's strongest traits based on 12 Neuroscience games.
- Is a continuing project (meaning they are constantly making improvements to their services)
- While it is important to consider the work they have done so far, it is just as important to understand the number of improvements that need to be made before these services can used in an ethical manner in order to create an even playing field for all applicants.

Ethical Issues

The model neglects to truly accomodate for:

- Elderly
- Non-white male applicants
- Those who lack computer literacy

Conclusion

- Companies like pymetrics are working to create the recruiting practices of the future
- Whether or not one should use them really depends on how comfortable they are with the service.
- The use of Neuroscience games present an attractive model for future recruitment, however, though they claim to account for some biases there are key issues that have not yet been addressed.
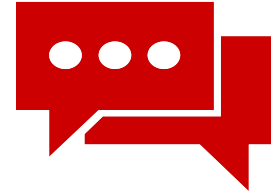
Final Thoughts

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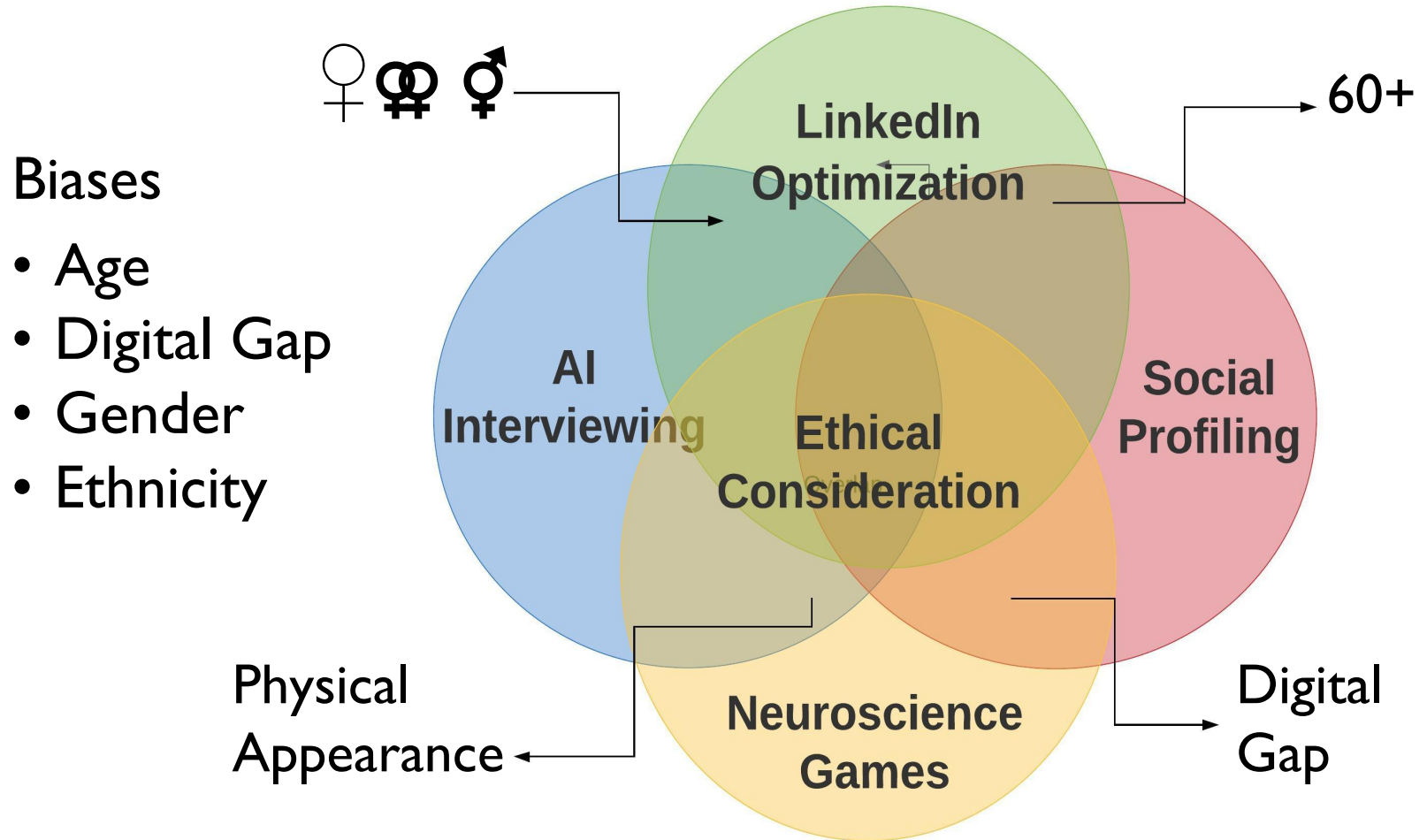
The Future of Recruitment

Benefits of AI-assisted technology

- Consistent evaluation process
- Increase time management
- Achieve job relevance (KSAO's)

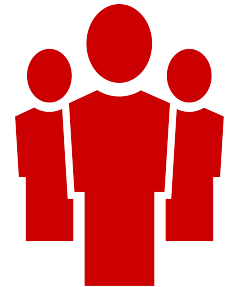## Advantages of Recruitment tools and strategies

- Identification of top performers
- Personalized networking
- Direct access to recruiters

Ethical Considerations

Biases

- Age
- Digital Gap
- Gender
- Ethnicity

Notable Questions

1. How might we use AI-assisted recruitment tools to help redefine the field of workforce recruitment?

2. How might we help job seekers benefit from AI-assisted recruitment strategies and tools?

3. How might these emerging technologies help existing employees advance from within more effectively?

Thank you!

Any questions?