

RPO Solutions

The Ultimate User Guide to
AI in Recruitment
Cool Tools for HR

Hill Consulting



Copyright Hill Consulting HRS 2022

Disruption is here!

Recruitment is Evolving Fast



The following slides provide an overview of AI Chat bots in Recruitment 2022 and a guide to what is currently out there

DIGITAL IMPACT

Driving demand for new skills, access to data / insights never thought possible

THE GIG ECONOMY

The shift to contracting enables businesses to manage costs and offer more flexible work options

GLOBALIZATION

The talent pool has no boundaries, digital access guarantees it

SHIFTING SOCIAL VALUES AND EXPECTATIONS

Longer working lives, portfolio careers, multiple jobs / Cross industries

EMPLOYEE EXPERIENCE IS KING

Customer expectations drive increased expectations for employers and workers

NOVEL PARTNERSHIPS

The sharing economy challenges boundaries in "how" work is done

POST COVID NEW NORMAL

Expectations of working remotely and or flexible office time. Also shifts to more virtual recruitment practices.

The Strategic Context: Big Global Future of Work Trends



Author of Guide Rachel Hill

Hill Consulting HRS Director



A Little Bit About Me

“Not born with a mobile in my hand”

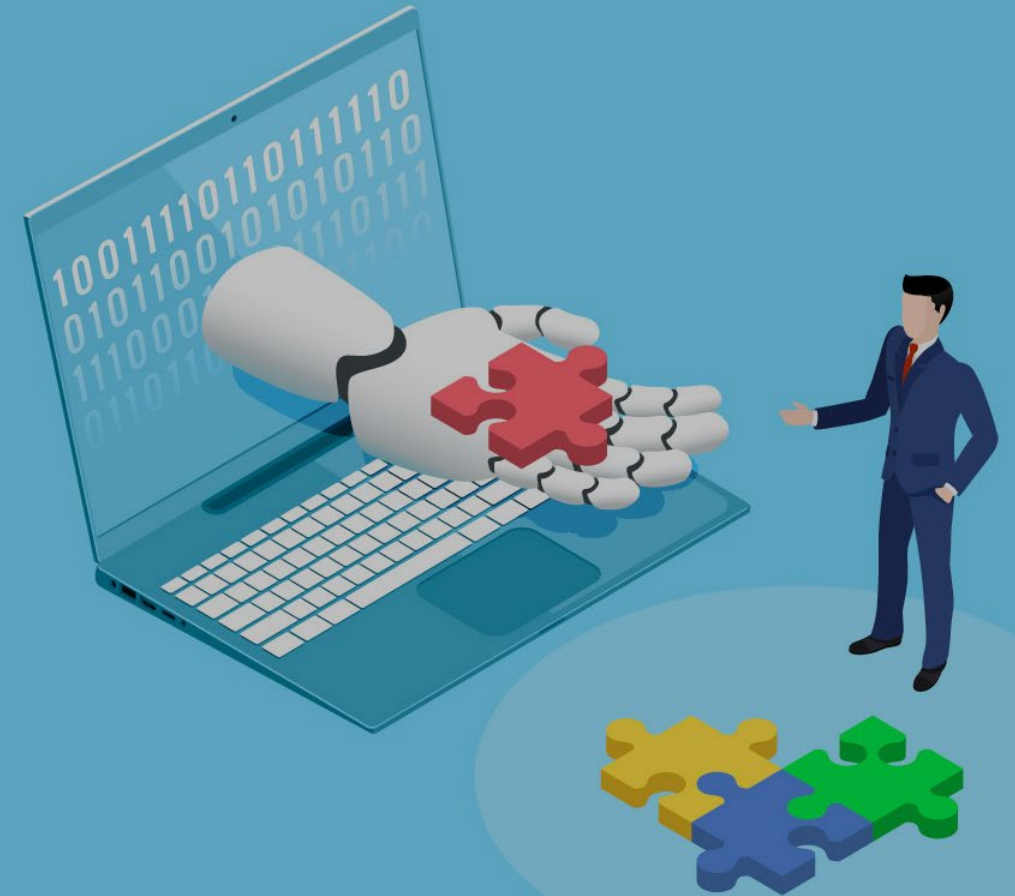
“If I can do this – so can you - Embrace!”

“Automate the mundane and add value on the human touch...”

Guide to AI in Recruitment Agenda



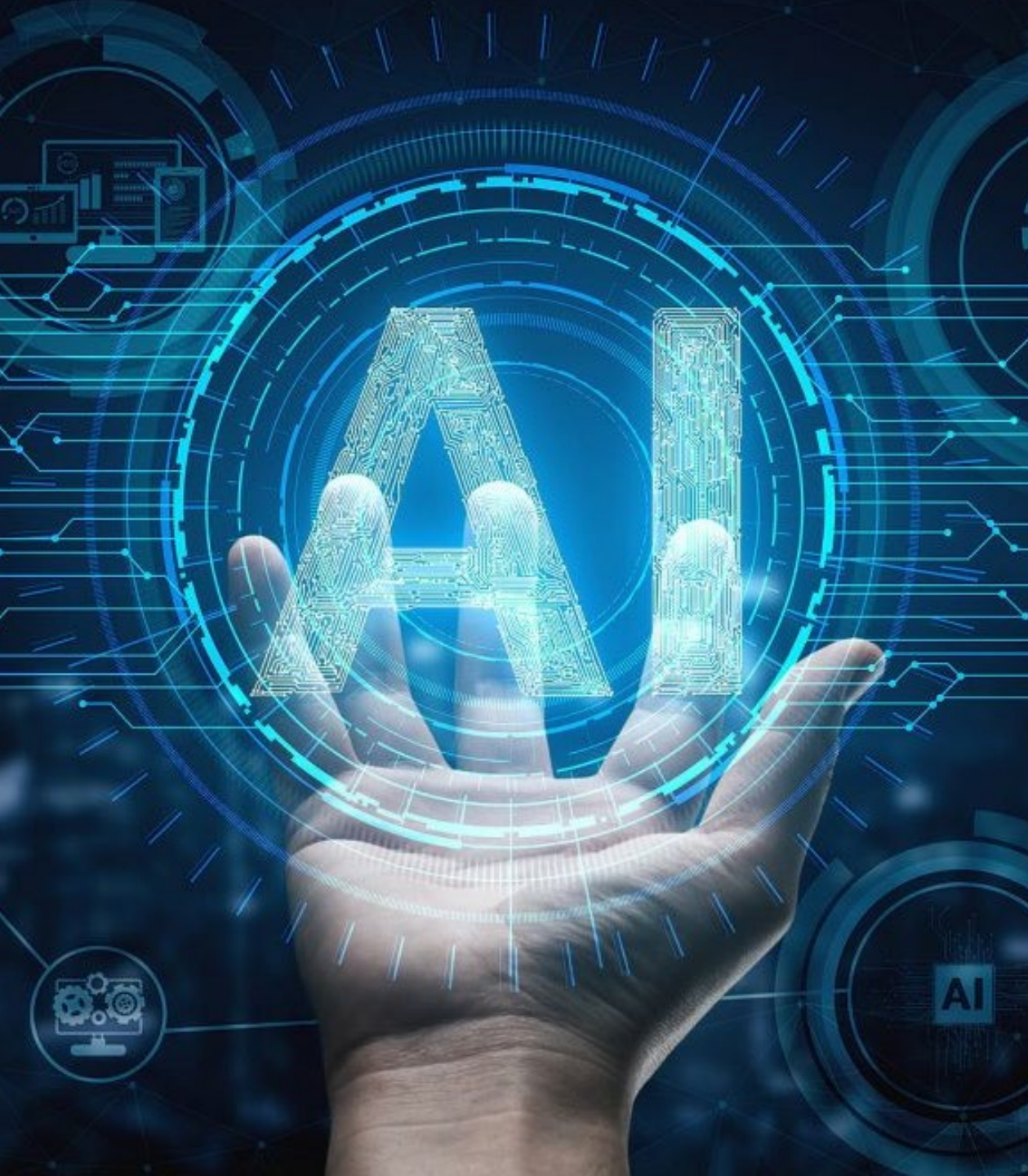
- What is AI?
- Types of AI and AI-powered tools in Recruitment
- How it works
- How to avoid Bias and ensure Diversity and Inclusion
- Ethics in AI
- The Candidate Experience
- Benefits and ROI of AI
- Vendor Appointment and Project Establishment
- Panel Discussion and Questions



WHAT IS AI?



01



What is AI?



What is AI in simple words?

Artificial intelligence (AI) is the ability of a computer, or a robot controlled by a computer to do tasks that are usually done by humans because they require human intelligence and discernment.

Artificial Intelligence (AI) is the branch of computer sciences that emphasizes the development of intelligence machines, thinking and working like humans. For example, speech recognition, problem-solving, learning and planning.

Most of what we call AI falls into "Machine Learning"

A subfield of AI – where the machine “learns” from data and feedback
A collection of algorithmic methods that can learn, find patterns and perform inference tasks (predictions) using large amounts of data

Field of AI is broader than machine learning

Planning, Optimisation, Scheduling, Search (Information Retrieval)

Rapidly evolving

Huge developments in the last 10 years and a strong interest in academia and industry to use. Especially in HR and recruitment.

Examples of Artificial Intelligence



Manufacturing Robots



Self-driving Cars



Smart Assistants



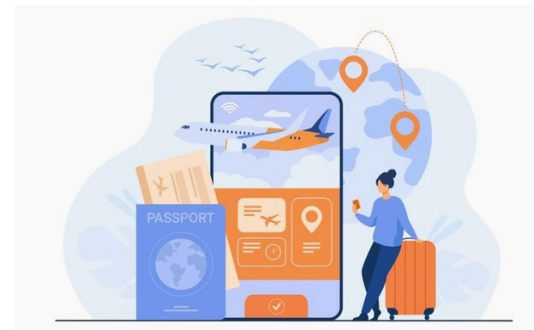
Proactive Healthcare Management



Disease mapping



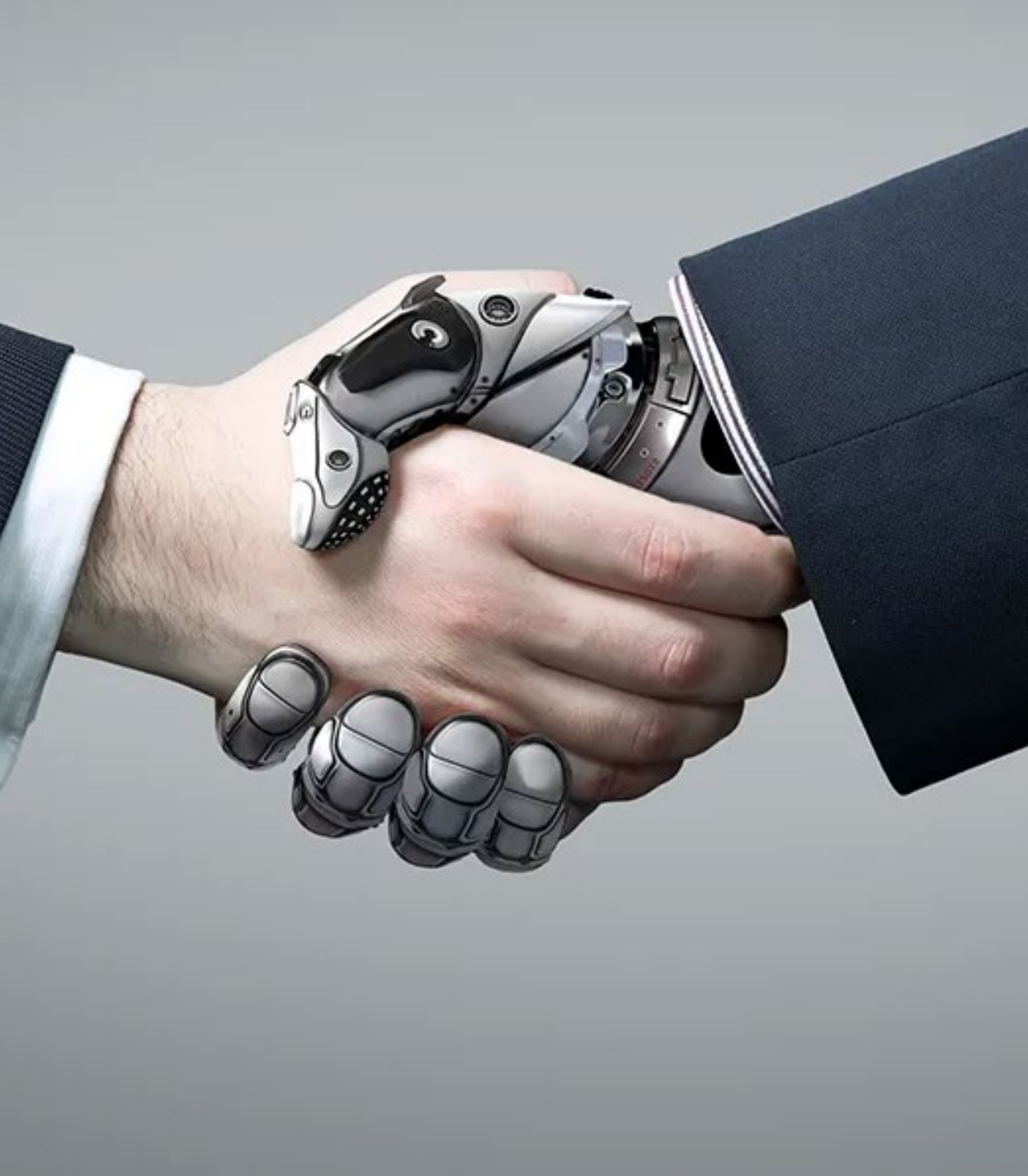
Automated Financial Investing



Virtual Travel Booking Agent



Social Media Monitoring



AI types

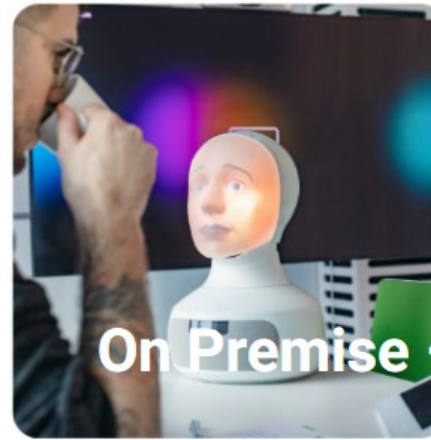
There are 3 types of artificial intelligence (AI): Narrow or Weak AI, General or Strong AI, and Artificial Superintelligence.
(Bernard Marr, May 2021)

- **Weak / Narrow** = AI models intelligent human behaviour, which allows machines to solve complex problems.
- **Strong / General AI** = is currently hypothetical, but when or if it's realised, machines would have full human cognitive abilities (think like a brain).
- **Artificial Superintelligence** = when machines surpass human intelligence. Imagine a machine that beats human intelligence in all subjects, from science and math to language, literature, and creative arts. This is the level that feeds the concern that machines might be capable of thought, feelings, consciousness and overthrowing the human race.

AI is a tool.. not a replacement for human intelligence.

Use it to make **smarter decisions and increase efficiency.**

AI Tools today are already very impressive



On Premise – Tengai Robot

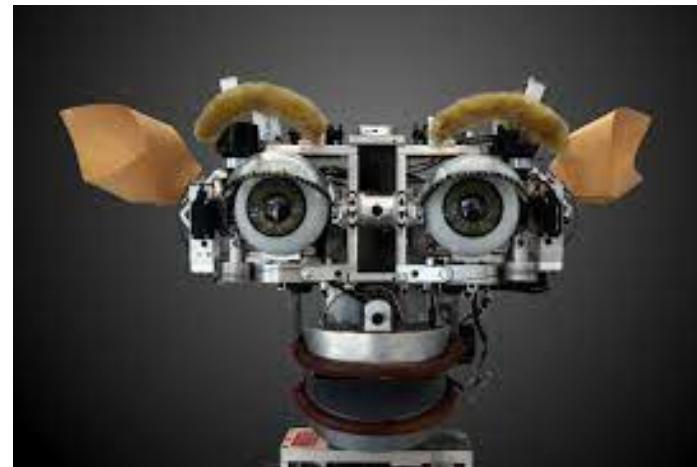
Tengai – on site Recruiter Robot Head

Bernard Marr posted this

A white humanoid robot is shown from the chest up, holding a single red rose in its right hand. The robot has a human-like face with closed eyes and a slight smile.

Artificial Intelligence (AI) Is Developing A Sense Of Smell: What Could A Digital Nose Mean In Practice?
Bernard Marr on LinkedIn
May 18, 2021
1,486 • 121 comments

AI with a sense of smell



Kismet – Facial Expressions



Sophia – Life Like Robot gets interviewed

The Benefits and Constraints of AI



The Pros

It is a tool to support data driven decision making

- It uses data and algorithms to make better sense of the world
- A tool that can help Recruiters be more effective and efficient
- Greatly speeds up time to process large amounts of data
- Can test and or ask knock criteria based questions and personality type questions

Humans are actually poor decision makers on large amounts of data!

- Most of us lack the ability to process millions of pieces of information
- Our emotions and Biases often cloud our judgment

The Cons

AI is not comparable to human intelligence or a replacement

- Narrow V General intelligence
- Important to understand the limitations plus how and when to apply
- AI is just a tool and has limitations
- Still needs to be monitored and quality data sources and validity required, algorithms **checked**

TYPES OF AI & AI IN RECRUITMENT



02

Different Types of AI used in Recruitment



AI for recruiting technology allows recruiters to better leverage candidates or candidate information and or screening and sorting practices, providing the ability to hire more efficiently, shortlist more accurately, and screen more resumes or interview more candidates with more fairness. Most often quicker and more accurately than a human can.

AI is used in Recruitment in several different ways

Pre-Funnel

Funnel

Screening

Selection

Onboarding



Instant, personalized, real-time communication is the world in which candidates have been living for a while.

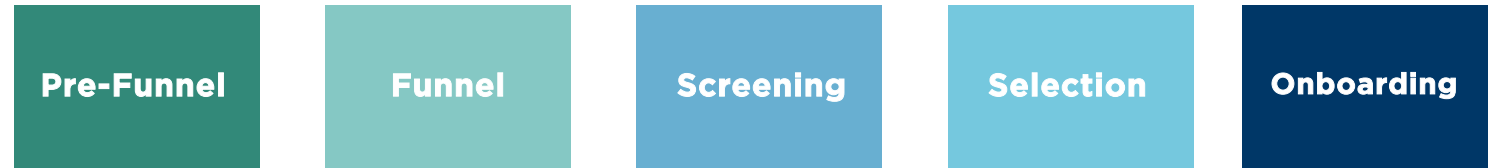
They are already used to it with friends and family, while shopping or banking.

That is now also the expectation when applying for a job.

AI Recruitment Market Place



The different stages of Recruitment and the different AI Available



There is
No Such
Thing As
A Fish!



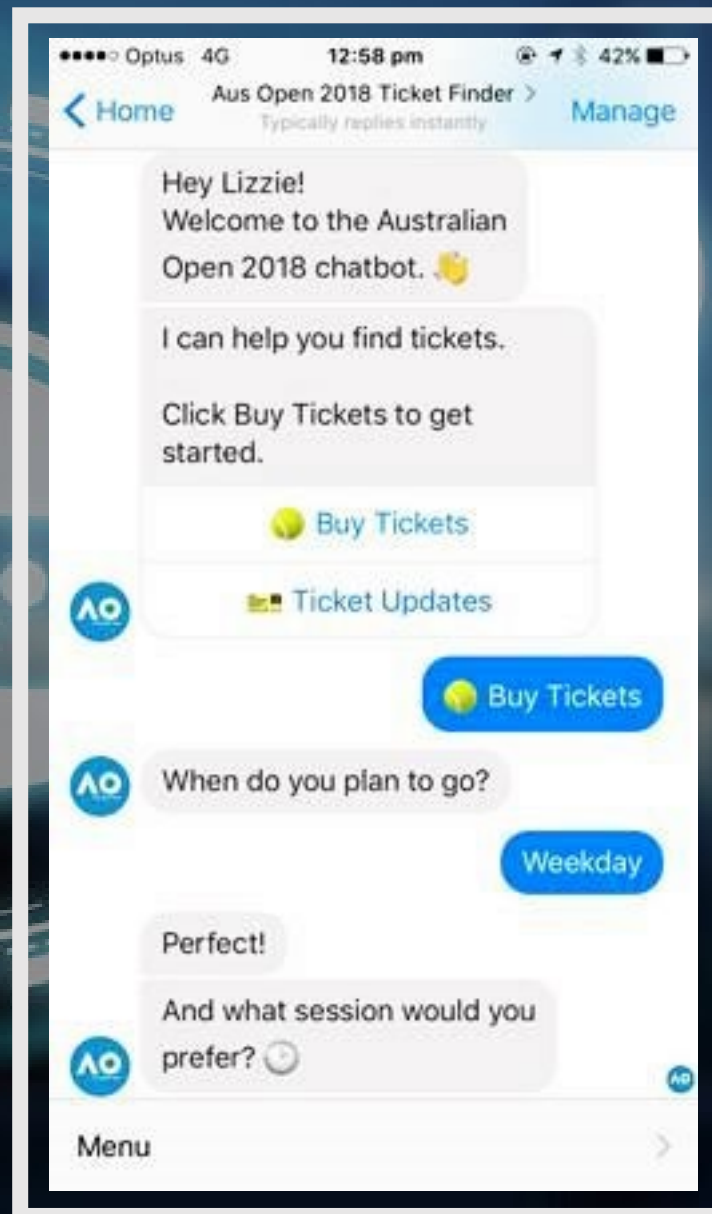
Stephen Jay Gould

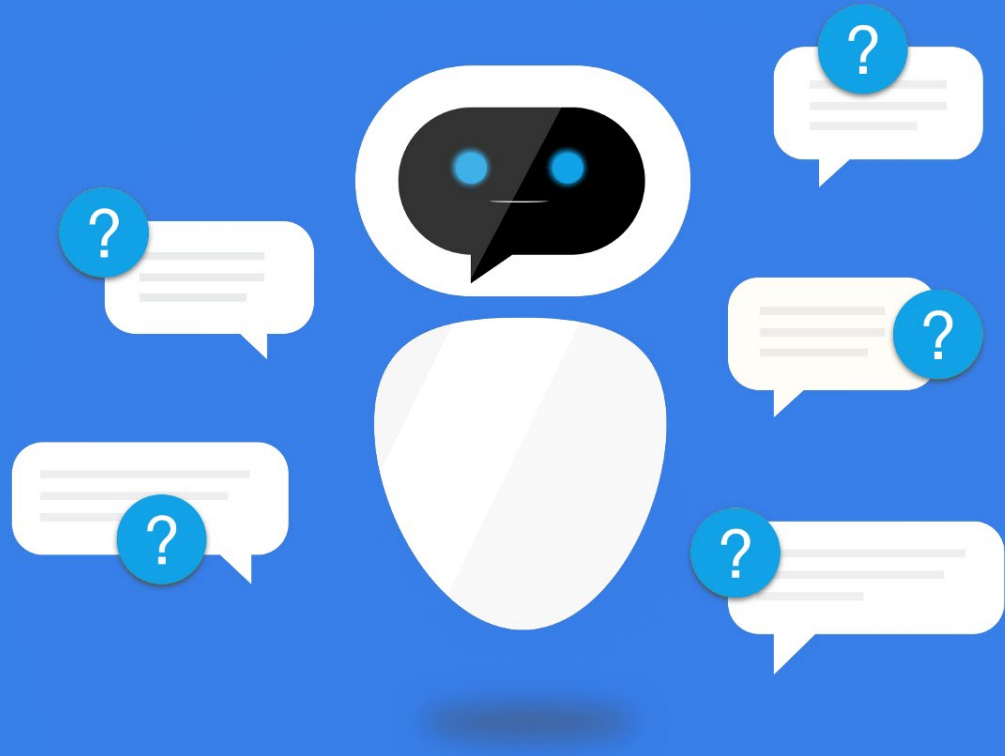
American palaeontologist

Stephen Jay Gould was an American palaeontologist, evolutionary biologist, and historian of science. He was one of the most influential and widely read authors of popular science of his generation.

*“Just like there is no one species of fish
– there is no one product for AI in Recruitment.
They are all different and all have different
strengths and weaknesses. So it really does
depend on what you want the technology to do”*
Rachel Hill, Director Hill Consulting

WHAT IS A CHATBOT?





Chatbots - A Short History



AI recruitment chatbots are a powerful tool for talent acquisition teams.

Designed and built for HR, these chatbots help save time, money, and improve the overall applicant experience.

- In 1950, Alan Turing predicted that by the year 2000, computers would be able to pass as human during a text conversation.
- 2/3 of candidates are comfortable interacting with a chatbot, from an Allegis study.
- Chatbots are predicted to save businesses \$8 billion and 2.5 billion hours by 2022, according to Juniper Research

Source: Ideal, A How-To Guide For Using A Recruitment Chatbot

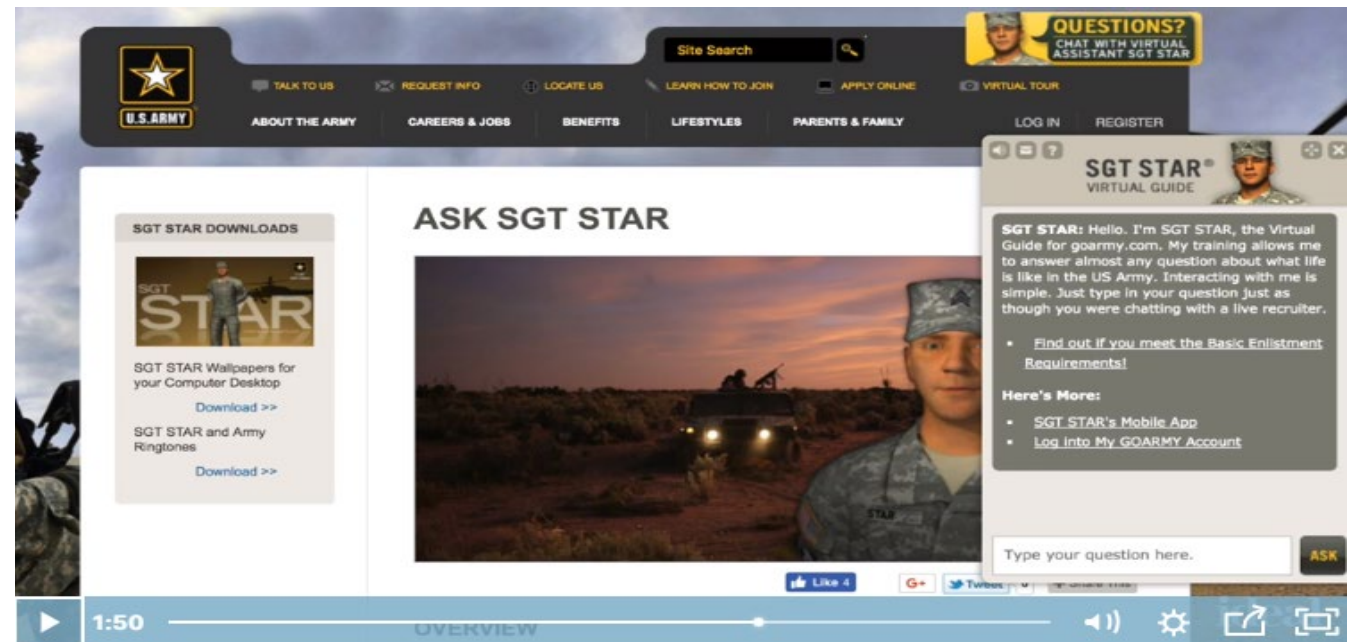
Example of Recruitment Chatbot: SGT STAR, U.S. Army



The U.S. Army has a recruitment chatbot called SGT STAR.

Designed to answer FAQs about topics such as basic training, types of jobs available, and salary. Candidates can message SGT STAR through the army's website.

Impact: SGT STAR has fielded 11 million questions to date, which is the equivalent of 55 Army recruiters.



Example of Recruitment Websites



R Hi Rachel,
Your personalized site and job recommendations are ready.

Recommendations based on your profile

Human Resources Analyst Organizational Management
Hershey, Pennsylvania, United States | Human Resources

Sr Manager Talent Management
Hershey, Pennsylvania, United States | Human Resources

Part-Time HR Generalist LATAM
San Juan, Puerto Rico, United States | Human Resources

Manager Human Resources Technology & Platform
Hershey, Pennsylvania, United States | Human Resources



Hershey
Conversational bot

Rachel Hill

Nice to meet you, Rachel.

In order to help you find the right job,
we want to learn a little more about
you.

Which of our job categories interests
you most?

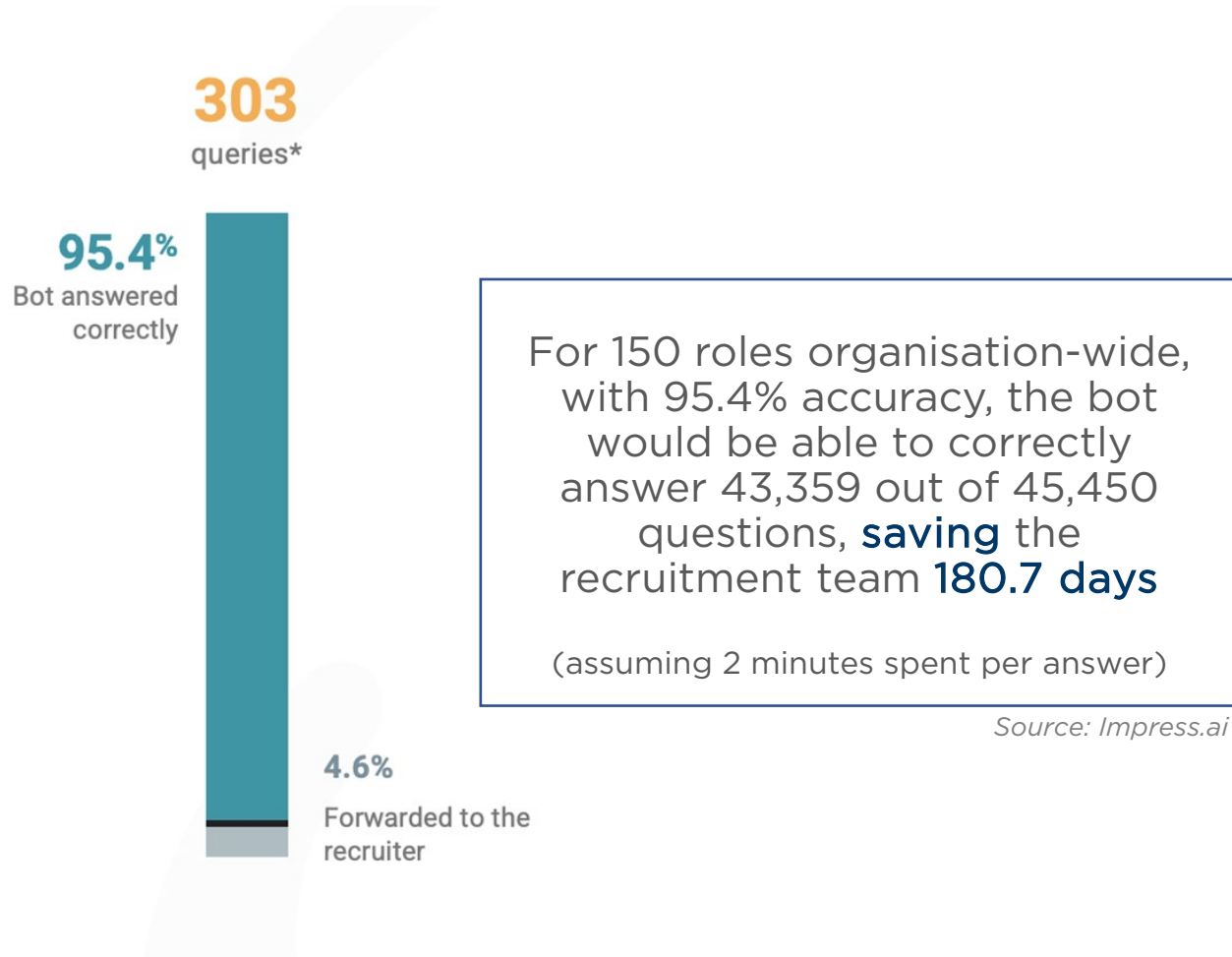
Human Resources

What's your current (or most recent)
job title?

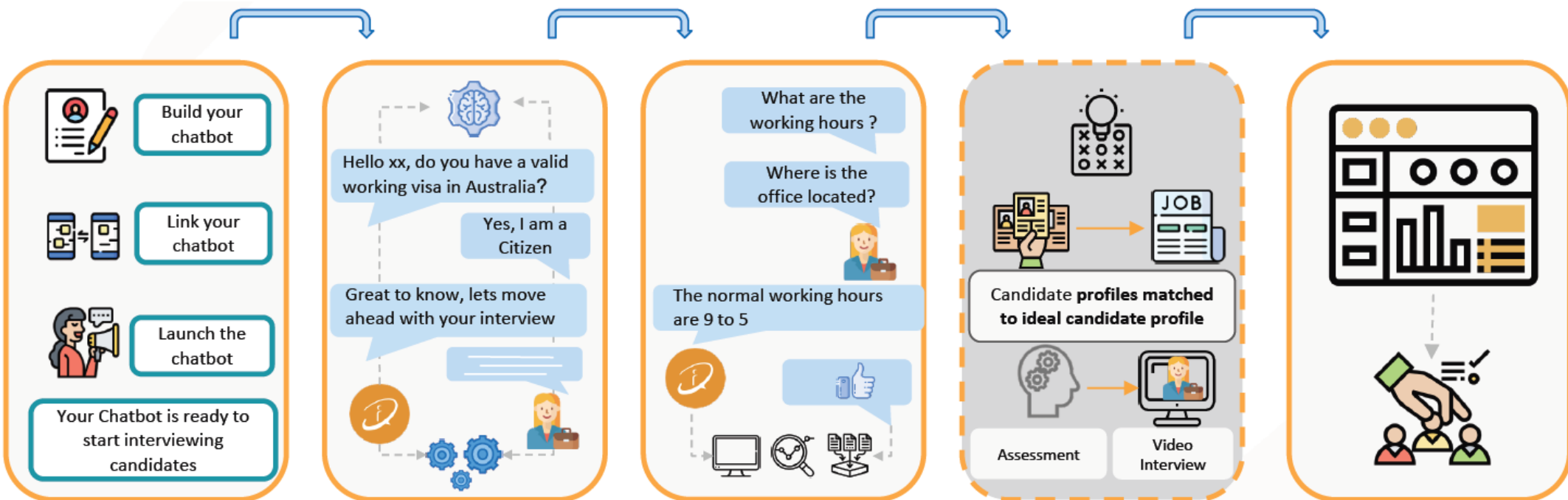
Have undertaken personalisation and retargeting to get better ROI for recruitment.
Plus the use of chat bots to tailor the experience and lead candidates to the rights jobs.

Chatbot User Interaction

Chatbots can answer common candidate questions and they do all get a response



AUTOMATING DIFFERENT STAGES OF THE HIRING FUNNEL



1 Create Workflow

Build your bot per the job requirement, link the chatbot to ATS or directly to the job ad and launch it on job portals

2 Interview

Natural Language Processing for realistic pre-screening interview process

3 FAQs

FAQ Module learns in real time to answer future queries

4 Integrations

Seamless integration with partners for video interviews, assessments and gamification

5 Shortlist

Data compiled and scored on a dashboard for analysis and decision making

HOW IT WORKS?



03

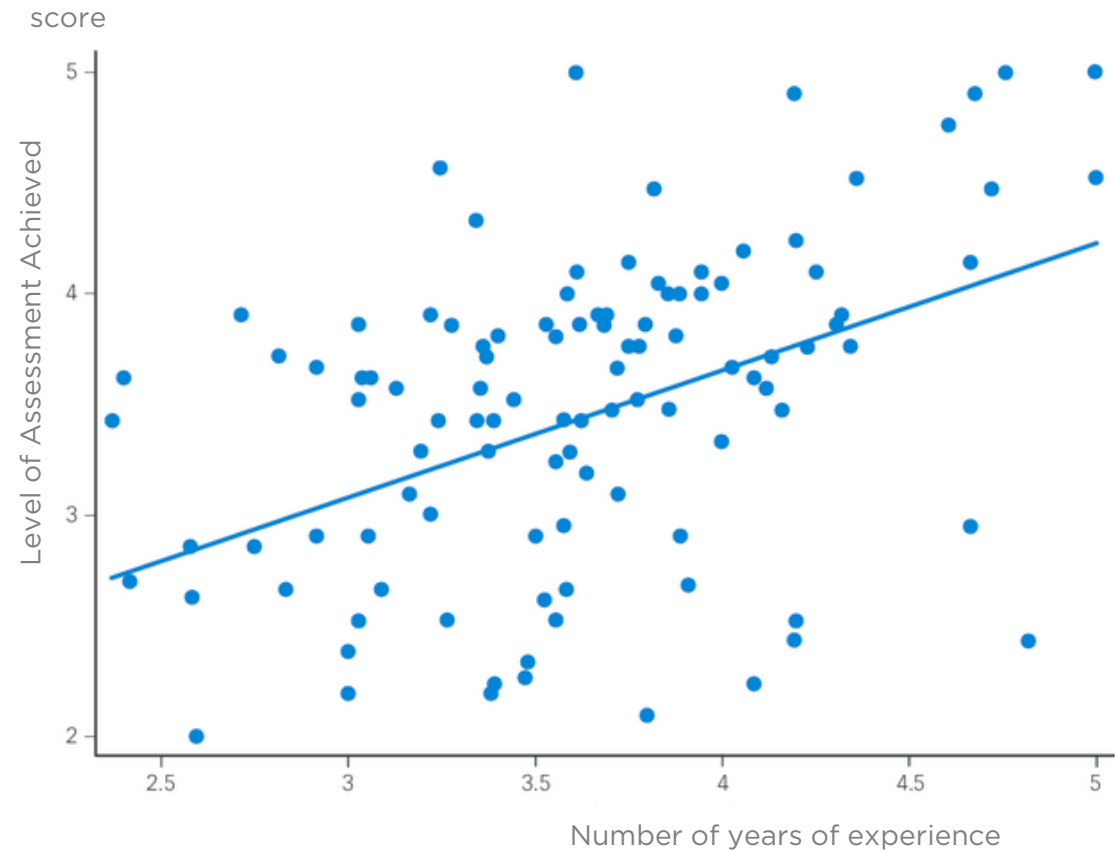
Lots and Lots of Data Points



Example:

Candidates are plotted along two axis based on criteria based scoring:

- Level of Assessment Achieved
- Number of Years of Experience



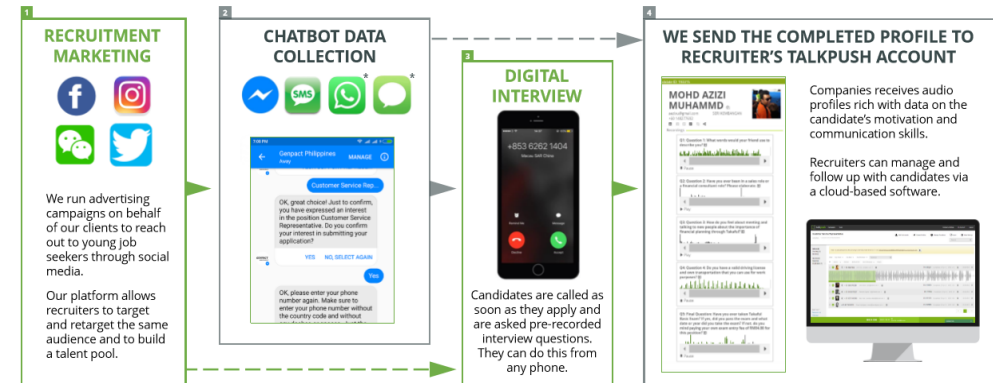
Different Types of AI Uses in Recruitment

AI DRIVEN ASSESSMENTS

25 Minute Video Assessment
1.6m features captured
25,000 equivalent traditional Assessment



Talkpush offers the first service to combine **social media lead generation** with **automated chat and voice conversations** to generate qualified leads

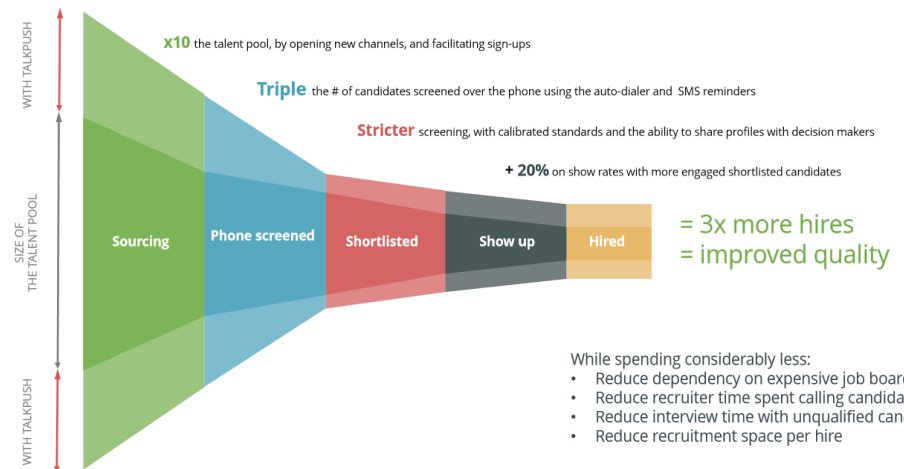


TRADITIONAL VS VIDEO INTERVIEW VS VIDEO AI ASSESSMENT



- 3 Candidates per hour**
Traditional Recruitment Process
Maybe/not Cognitive Assessment
Gut feel decision making
- Up to 10 Candidates per hour**
Video Interviewing only
Improved Candidate satisfaction
Maybe a Cognitive Assessment
Subjective Bias within the video interview
- 1,000,000+ Candidates in 30 minutes**
Data driven decision making
AI Cognitive & Video Assessment
IO Psychology + Data Science
Bias Free
Widen the talent pool CRM tools become effective
Higher candidate experience – progress the best and worst quickly
Increased recruiter productivity – retain good recruiters!
Significantly improved relationship between recruiter & hiring manager
Diversity Organisational KPI's increase
International candidates – become easier to assess
Business – reduces turn over, sales, sick leave, AHT, safety incidents

Turbocharge your hiring efforts by **opening up your recruitment funnel**

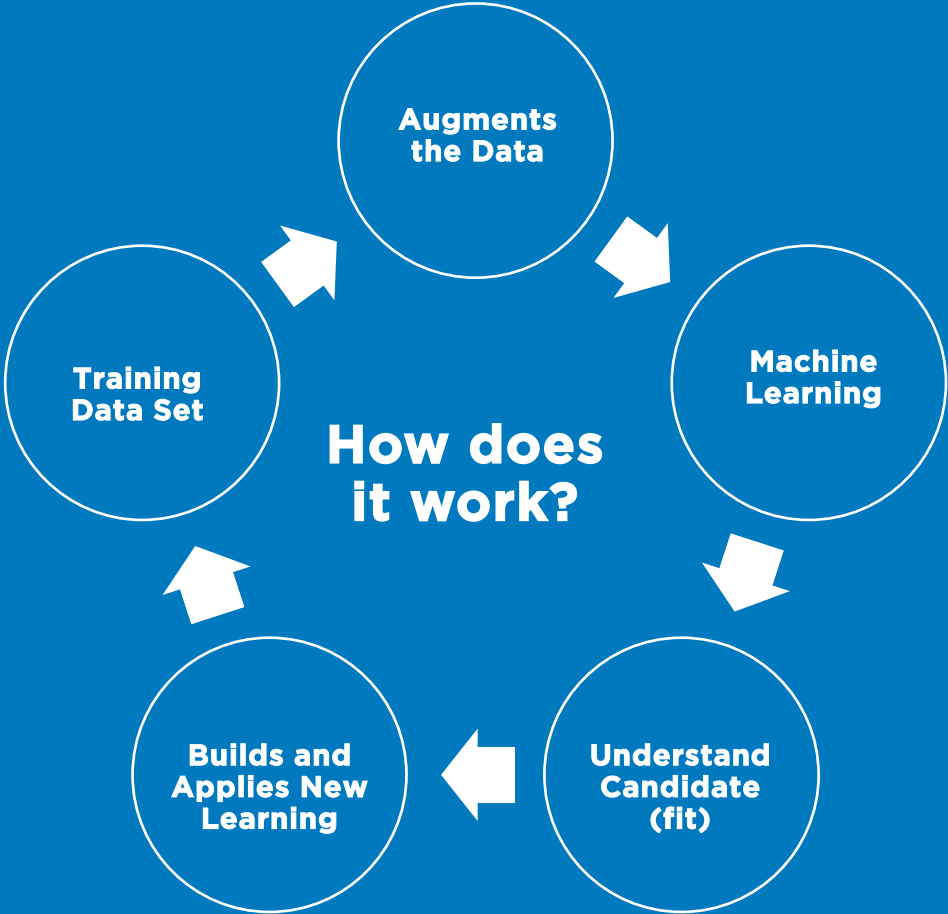


- While spending considerably less:
- Reduce dependency on expensive job boards
 - Reduce recruiter time spent calling candidates
 - Reduce interview time with unqualified candidates
 - Reduce recruitment space per hire

The Science Behind The Data



Feedback from the real world (humans) / Systems



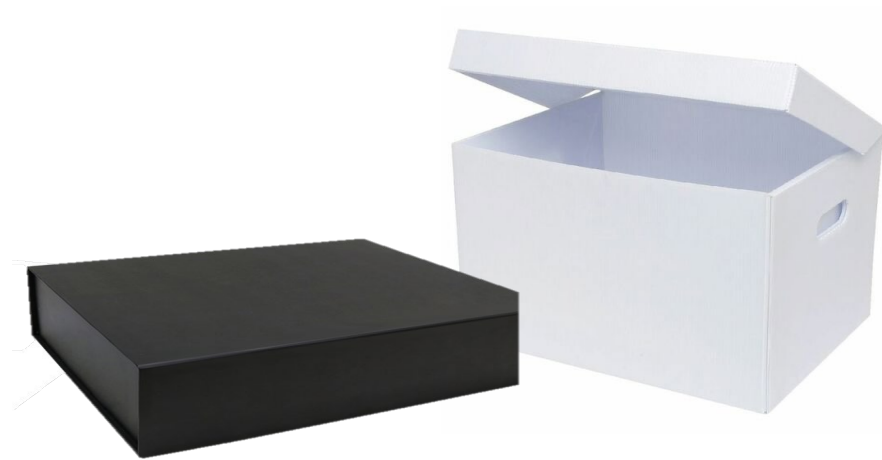
HOW TO AVOID BIAS & ENSURE D&I



04

Concern for Bias Within AI Tools

White Box | Black Box



Gender Shades: leading tech companies' commercial AI systems significantly mis-gender women and darker skinned individuals.

Researcher **Joy Buolamwini** initiated a systematic investigation after testing her TED speaker photo on facial analysis technology from leading companies. Some companies did not detect her face. Others labelled her face as male. After analysing results on 1270 unique faces, the Gender Shades authors uncovered severe gender and skin-type bias in gender classification.



“Amazon scraps secret AI recruiting tool that showed bias against women”

**Poor examples in the press....
Facial recognition with bias**



Timnit Gebru is a computer scientist who works on algorithmic bias and data mining.





NEW DIVERSITY & INCLUSION FRAMEWORKS ARE EMERGING



Product Criteria:

Is it ...

- Explainable,
- Inclusive,
- Unbiased and
- Valid

Does it provide the Candidate / Client with :

- Data Privacy and Security
- Team Diversity
- Transparency

Good Checks to have in place:

- ✓ Tested and validated so no diverse impact on different diversity groups
- ✓ Do not use demographic attributes / without consent of Applicants
- ✓ Algorithms and models undergo continuous testing and feedback

Source: The FAIR Framework by Predictive Hire

Do AI Tools Create Bias?

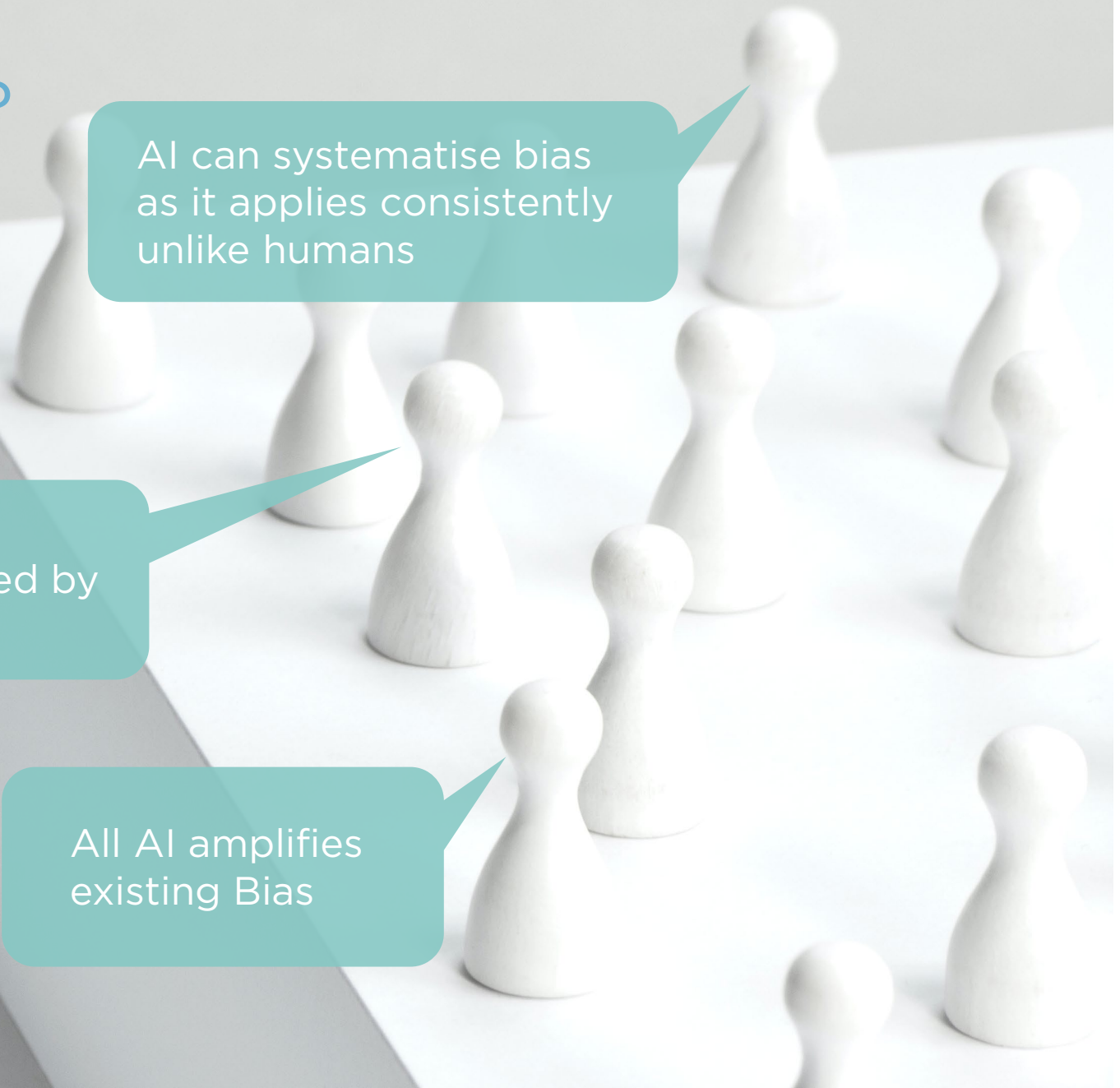
Ask the expert



AI can systematise bias as it applies consistently unlike humans

All AI is biased because its coded by Humans

All AI amplifies existing Bias



ETHICS IN AI



05

The Ethics around AI



Joy Adowaa Buolamwini is a Ghanaian-American computer scientist and digital activist based at the MIT Media Lab. She founded the Algorithmic Justice League, an organization that **looks to challenge bias in decision making software**



Timnit Gebru is a computer scientist who works on algorithmic bias and data mining. She is an advocate for diversity in technology and co-founder of Black in AI, a community of **black researchers working in artificial intelligence.**



Shalini Kantayya is an American filmmaker and environmental activist based out of Brooklyn, New York whose films explore human rights at the intersection of water, food, and renewable energy. Kantayya **recent movie at Sundance 2020 Coded Bias**



Ethan Zuckerman is an American media scholar, blogger, and Internet activist. He was the director of the MIT Center for Civic Media, and Associate Professor of the Practice in Media Arts and Sciences. Looking at **The Gender Shades project** pilots an intersectional approach to inclusive product testing for AI.

Current Conversations Around Ethics



Ask the expert

What temptations will companies face in terms of candidate privacy relating to:



Personal Attributes



Lifestyle and Activities



Disabilities

Best Practices for building Ethical AI for Recruitment:



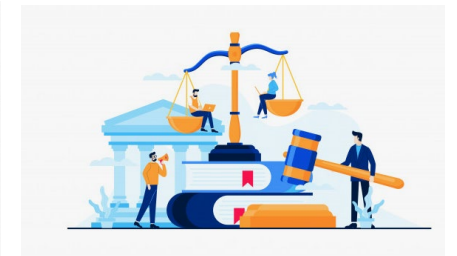
Educate and obtain consent from candidates



Invest systems that optimize Fairness and Accuracy



Open-Source Systems/ Third Party Audits



Same Laws as Traditional Hiring Audits

THE CANDIDATE EXPERIENCE



06

Candidate Experience



55% of companies are increasing their investment in recruitment automation this next year.

These companies recognise that automation can improve efficiency, lift the administrative burden, reduce costs, and enable data-driven decisions.

There is also a look at automation through the eyes of the candidate. Better experiences create:

- Trust
- Inclusivity
- Feedback
- Connection

Recruitment is more than moving candidates through a process quickly. It should also enable companies to communicate in a meaningful and inclusive way and build trust between candidates and employers.

Source: Gartner's C-Suite survey, 2020



Candidate Feedback

What are the candidates' experience with the 'chatbot'?



Well-Structured

"Very well structured, enjoyed my time attempting it."

Unique Experience

"An interesting and unique way of application where messenger bots are used to guide us through the application process"



Increased Efficiency

"Really impressed by the bot that speeds up the hiring process at the initial filtration stage."

Enjoyable & Engaging

"Very interesting to use chatbot with AI for the application process. It makes the process much more enjoyable and engaging, as well as easier to ask for relevant information."



86.4
%

Promoters

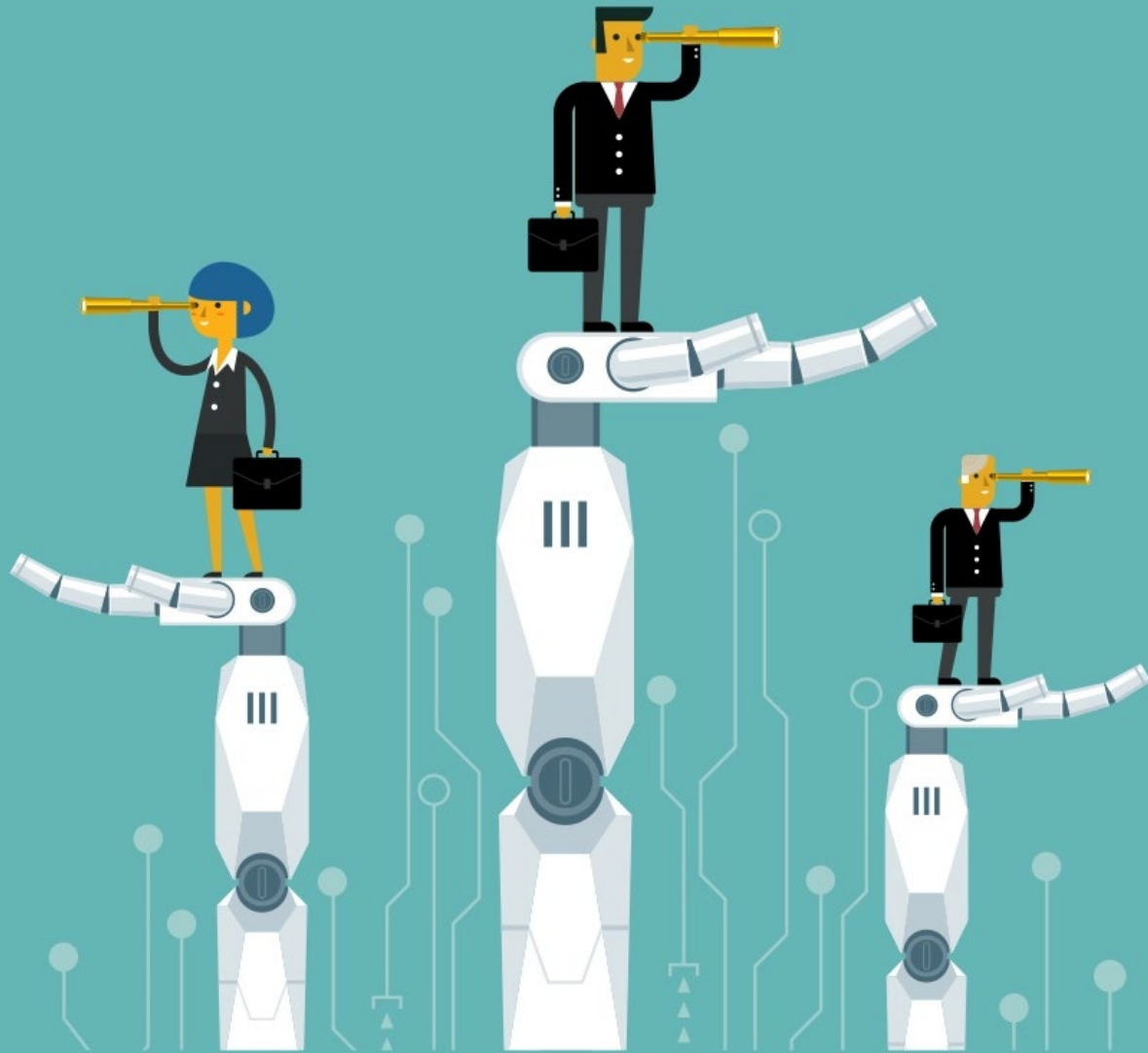


**above 4 star
candidate rating based
on 1,056 candidates'
feedback**

BENEFITS AND ROI OF AI



07



52%

of talent acquisition leaders say the hardest part of recruitment is identifying the right candidates from a large applicant pool.

56%

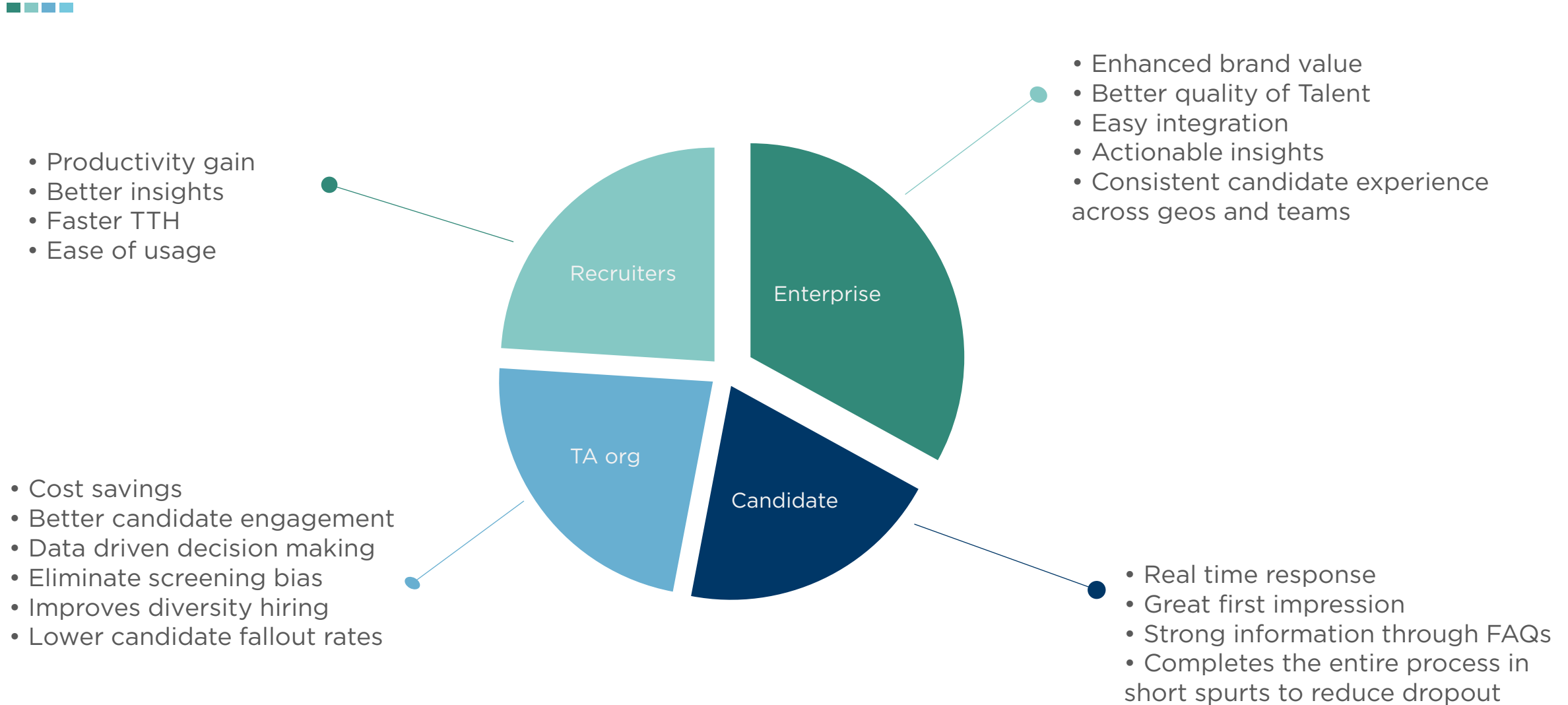
of talent acquisition leaders say their hiring volume will increase this year.

66%

Of recruiting teams will either stay the same size or contract



AI Tools Benefit all Stakeholders:



Immediate ROI Of AI Tools For Assessment



Recruiter Efficiency

Save time and manual effort required by automating high-volume and repetitive tasks



Fairness

Hiding biased information drives performance-based decisions - 100% unbiased hiring score



Automated & Centralized

Administer all assessments in one place and review candidates' results seamlessly without disruptions.



Competitive Advantage

Less likely to lose top talents as automation speeds up the avg time-to-hire - e.g. 7 days per hire



Data Collection

Immediate access to real-time data of the recruitment process & useful data insights



24/7 Availability

Close to 50%* are talking to (bot name) outside working hours



ROI – Case Study for using AI in Recruitment



A telecommunication company's key insights after launch of their graduate role

Source: *impress.ai*



Main Objectives:

- *Seamless candidate experience with multiple assessments*
- *Manage higher-volume hiring*



96% accuracy
for candidate queries



86.4% promoters



99.9% candidates
reviewed & informed



790 hours
of recruiter time-saved

VENDOR APPOINTMENT & PROJECT ESTABLISHMENT



08

Engage Your Vendor – Points to cover



1



Sharing the Recruitment Process

Identify pain points from start-to-end of the recruitment process (i.e. duration of posting, stages of application, etc.)

2



Role Selection

(i.e. evergreen roles)

3



Selection Criteria for chosen roles

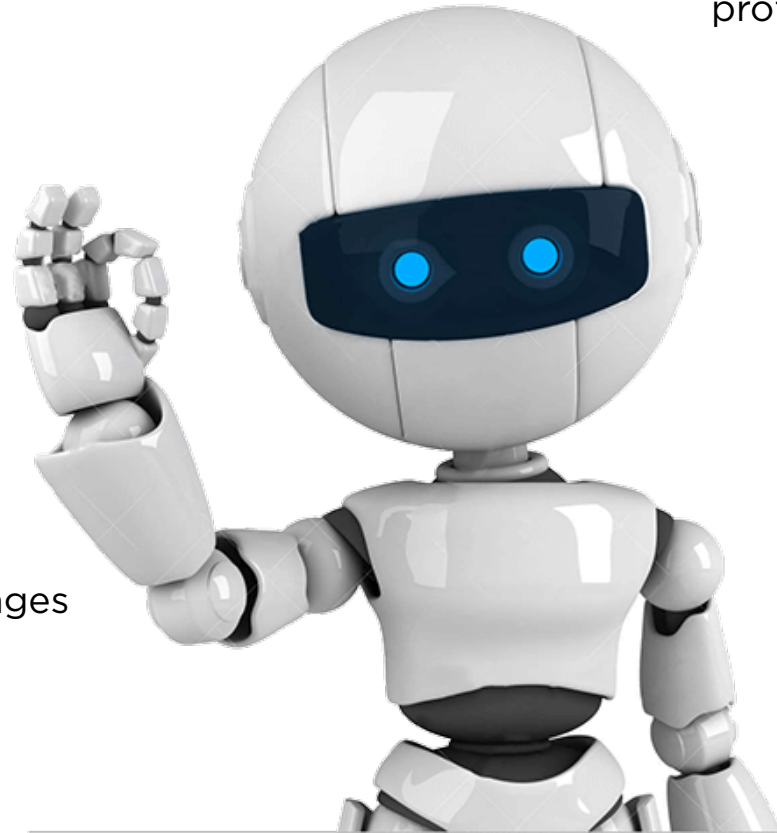
(i.e. hard qualification criteria, documents required, ideal candidate profile, cut-off for assessment)

4



Proposed Flow

Digitalised & automated screening as much as possible



Setting Objectives

What do you want to achieve?



% reduction in time to qualify



% reduction in cost to hire



% bias-free evaluation



x increase in reach



X minutes application process
(instead of the usual X days)



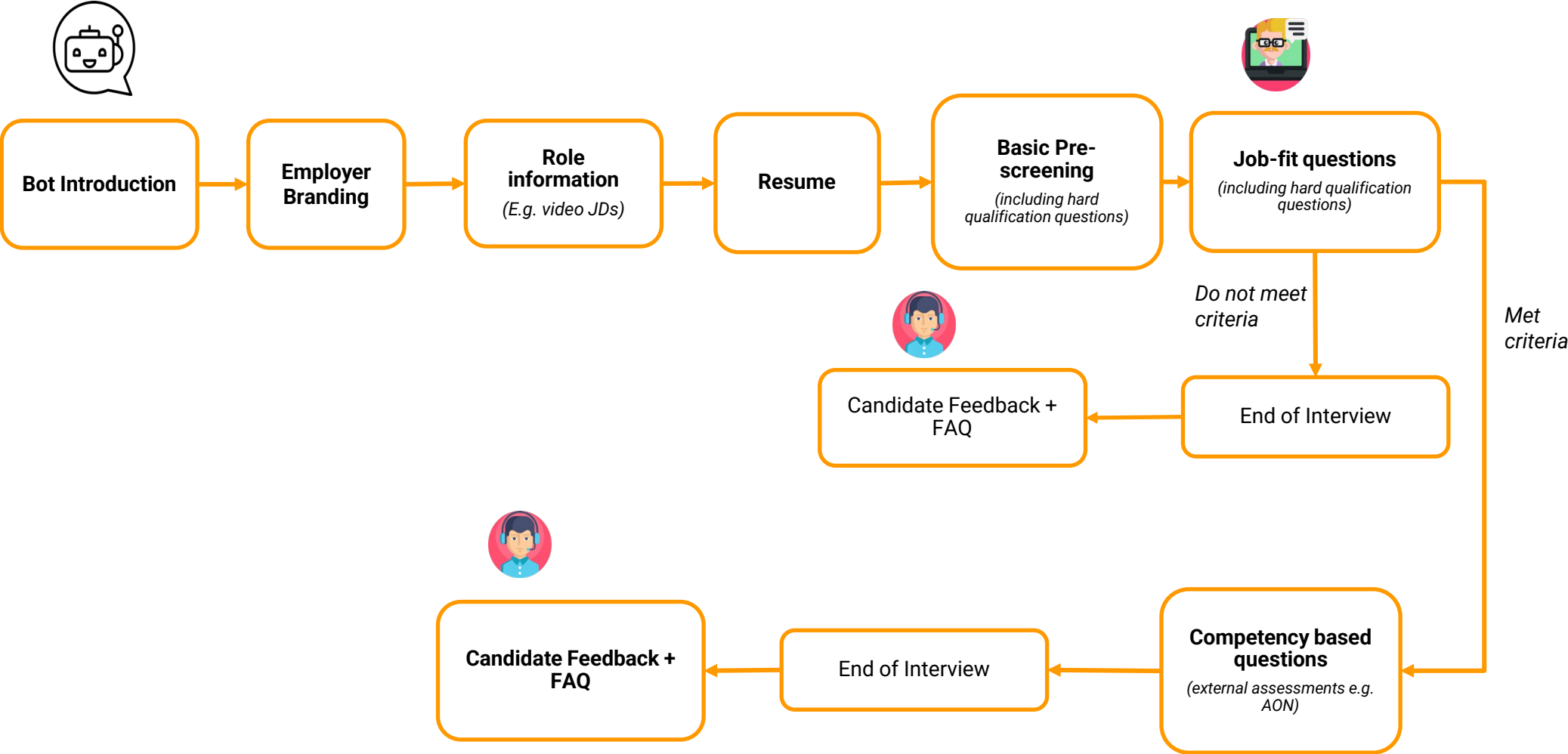
Analytics
and insights into the process

- **Time to Qualify:** time interval between candidate clicking on Apply Now to when they are notified of the face-to-face interview (usually in weeks)
- **Effort to Qualify:** the amount of effort (in time invested by the recruitment team) needed to shortlist 1 candidate; usually in minutes or hours.



DEFINE
BENCHMARKS

Sample Workflow



Metrics That Matter (SEEDERS™):



While one can track and measure **over 50 metrics**, some of them have larger impact. impress.ai, for example, have developed a unique framework based on interactions with the industry practitioners. Called SEEDERS™ to measure the impact of using AI in recruitment.

Speed

Rapid Candidate Screening 24x7
Metric = Time to Shortlist

Experience

Responsive to Candidates and Recruiters
Metric = Net Promoter Score

Efficiency

Reach: Process and calibrate at scale
Metric = Applicant-to-Shortlist Ratio

Diversity

Reduce bias: gender, age, race, religion
Metric = Diversity Ratio

Effectiveness

Results: Quality of conversion
Metric = Shortlist-to-Hiring Ratio

Saving

Return on Investment Guaranteed
Metric = Cost to Shortlist

Recruiter Impact

High Touch Engagement with Candidates and Stakeholders
Metric = Time spent / shortlisted candidate or hiring manager

Sample Questions to Ask AI Vendors



- Do AI chatbots only really work only for certain types of roles (e.g. high or Low level)
- How “accurate” are chatbots in screening ?
- Data ownership when using external vendors?
- How does AI evaluate candidates?
- Do candidates actually enjoy automated processes?
- How much data is required to train the AI?
- How do we make sure the AI doesn’t get biased or store the human bias as humans train the tech?
- Does the AI basically operate based on resume keywords?
- Are there proof points for where AI helped improve the hiring accuracy?
- Does the AI work in multiple languages?
- Are these products GDPR compliant?
- How do you insure Diversity and Inclusion in any AI tool?
- What about candidates with a disability?
- How does your company ensure fairness and unbiased Algorithms?



In Summary



- **AI-driven tools remain exactly that: just a tool. This means that they're only a support for the Recruiters who work with them, not a replacement.**
- **Use them to improve and enhance decision making, candidate experience and efficiency, providing huge ROI to Recruitment Teams.**
- **Engage the vendor with the right questions and knowledge sharing, while following the ethics best practices**

Want to use AI in your Recruitment process – call us!















Why we're different

Not a typical Recruitment Agency. We can flex to suit your needs. You can use us as little or much of our services as you need. We are adaptable, flexible and will tailor every project or campaign for your specific organisation and roles. We also work hard to reduce your costs and time to hire, improve efficiencies and help share skills and Knowledge. Our differential being the data, analysis and insights we provide to clients at every step in the process.

Call today for a confidential independent chat on AI in Recruitment on 0403 899083 or visit the website www.hillconsultinghrs.com.au

The Benefits of Working with Hill Consulting HRS

-  Time to hire
-  Cost per hire
-  ATS Expertise
-  Additional resources (RPO)
-  Filling difficult to fill roles (Search)
-  Skills Training Recruiters & Hiring Managers
-  Recruitment services
-  Campaign management
-  Candidate Quality
-  Candidate Attraction (EVP)
-  Candidate Care
-  Improved process and efficiency
-  Diversity & Inclusion considerations
-  HR Tech and AI Chatbots in Recruitment knowhow
-  High Touch. High Care.

Hill Consulting



HILLCONSULTINGHRS.COM.AU

ADMIN@HILLCONSULTINGHRS.COM.AU | PH: 0403 899 083