Understanding public perceptions towards automated decision-making in recruitment

Research summary

Summary of findings

This research, commissioned by the Information Commissioner's Office (ICO), explored public experiences and perceptions of Automated Decision-Making (ADM) in recruitment processes. The study involved remote focus groups with 33 job seekers, divided into four distinct groups to represent a range of employment experiences and attitudes. Key findings highlight participants' perceptions and experiences of recruitment processes, their understanding and attitudes towards ADM, and their expectations for its use.

Key themes	Overview of key findings
Evolving Recruitment Landscape and ADM Awareness	• Participants and stakeholders acknowledged the evolving recruitment landscape with increased ADM use. • Despite this, participants generally had a limited understanding of ADM and how it worked, often perceiving it in a binary way (human decision-making vs. fully automated). • Participants had mixed views on the appropriateness of ADM at different stages of the recruitment process. • While some saw potential benefits in early-stage filtering ("light-touch" ADM), there were significant concerns about using ADM for assessments and final decision-making ("comprehensive" and "fully-automated" ADM). • The concept of fully-automated decision-making (FADM) in recruitment received strongly negative reactions from all participants.
Tension between automation and human oversight	• A central tension was identified between the desire to automate recruitment processes for efficiency and the perceived need to maintain human involvement. • There was an assumption that human decision-making often leads to better quality outcomes, citing the ability of humans to use 'common sense' and read subtext, which they felt automated systems lacked. • They also stressed the importance of human oversight in recruitment processes to ensure fairness, address potential biases, and provide personalised feedback.
Fairness and Bias	• Participants raised significant concerns about the potential for ADM to introduce or perpetuate bias, including algorithmic bias and discrimination against certain groups. • Some participants initially thought ADM could be fairer than manual decision-making, perceiving manual decision-making as flawed due to personal biases.
Lack of transparency and candidate experience	• Participants consistently perceived a lack of transparency throughout the job application and recruitment processes. • This included a lack of detail in job advertisements, vague rejection emails, and confusion around application activities and assessments. • Participants frequently reported negative experiences within recruitment processes, such as a lack of responsiveness from employers and vague or unhelpful feedback. • Across all groups, participants expressed a preference for in-person interactions over online or remote methods, believing in-person recruitment

	allowed them to better showcase their personality and increase their chances of success.
	• Participants strongly emphasised the need for transparency in the use of ADM. • They wanted to know when and how ADM was being employed, what data was being processed, and how decisions were being made. • Participants expected ADM systems to be fair, unbiased, and free from discrimination.

Project background

Background to the research

The Information Commissioner's Office (ICO) commissioned this research to gain a deeper understanding of how members of the public experience and perceive automated decision-making (ADM) in recruitment processes. This insight will inform the ICO's ongoing work to ensure compliance with Article 22 of the UK GDPR, which safeguards individuals' rights in relation to automated decision-making.

Recruitment processes are increasingly using AI-powered technologies to screen CVs/application letters, conduct initial interviews, and assess candidate suitability. While these technologies can streamline the recruitment process, they also raise concerns about fairness, transparency, and accountability. The ICO is particularly interested in understanding how these technologies impact individuals, especially marginalised groups who may be disproportionately affected by biased algorithms.

This report builds on the ICO's ongoing work to ensure compliance with Article 22 of the UK GDPR. It aims to identify how ADM is currently perceived and experienced, and what the main concerns and expectations are, at a time of considerable technological change in recruitment practices.

In line with the ICO's goals, Revealing Reality focused on three main research objectives:

- Gain qualitative evidence of how people experience automated decision-making and the effect(s) that they feel it has had on them, specifically in recruitment contexts.
- Explore reactions to different types of ADM tools and approaches in recruitment, whether experienced directly or not.
- Capture qualitative evidence of people's expectations around the use of ADM, particularly in relation to Article 22 requirements.

About the Information Commissioner's Office

The Information Commissioner's Office (ICO) is the UK's independent regulator for data protection and information rights law, upholding information rights in the public interest, promoting openness by public bodies and data privacy for individuals. We regulate the whole economy, including government and the public sector.

We turn complex laws into services that are clear, practical and relevant to everyday lives. This enables businesses and organisations to plan and invest in the use of information responsibly, in turn, protecting people.

From 2024-25 we're focusing attention on children's privacy, AdTech and AI and biometrics. These are areas where we can see potential harms and public concerns. But they're also the areas with the most significant potential for public benefit, innovation and growth if used responsibly.

About Revealing Reality

Revealing Reality is an independent, multi-disciplinary research agency, working with regulators, government, charities, and private sector organisations.

We provide insight to inform decision-making, policy recommendations and service design and to help drive change. We conduct detailed qualitative and quantitative research into different services, processes and, the people who use them – capturing a range of different perspectives to understand user experience and unmet need.

About the project

Method

This summary report presents findings from research conducted by Revealing Reality, which explored public perceptions and experiences of Automated Decision-Making (ADM) in recruitment.

Remote focus groups were conducted with 33 adults who had applied for at least one job in the past three months. These focus groups lasted approximately two hours each. Additionally, Revealing Reality conducted three expert interviews with stakeholders in the recruitment field to provide valuable contextual information for the analysis.

Participants in the focus groups were divided into four distinct groups, with 8-10 participants, designed to represent a range of employment experiences and attitudes, ensuring a broad range of perspectives.[1] Each participant was attended by participants of only one group.

The focus groups followed a structured format, incorporating group discussion, private response activities and pros and cons activities. The session centred on three key themes:

- **Building context:** Participants shared their recent recruitment experiences, both positive and negative, without initial mention of ADM. They discussed their preferences for different recruitment activities and considered the challenges employers faced in today's recruitment environment.
- **Reflections on ADM:** Participants were introduced to ADM as a general concept and shared their initial reactions. They then discussed the use of ADM at different levels (light-touch, moderate, comprehensive, and fully automated) and in various recruitment scenarios.
- **Expectations:** Participants discussed their expectations for the future use of ADM in recruitment, focusing on fairness, accountability, and transparency. They also offered suggestions for how they would like to see ADM implemented.

Sampling criteria

The research aimed to represent a diverse cross-section of job seekers within the UK. The sample included participants from all four UK nations, with varied recruitment outcomes (successful, unsuccessful, or pending). To ensure a broad perspective, the sample was weighted towards individuals from lower socioeconomic backgrounds and marginalised demographic groups, including older individuals, women, and individuals from Black, Asian, and Minority Ethnic (BAME) communities. Specifically, 50% of the sample consisted of individuals from marginalised groups who might be disproportionately affected by biased algorithms or recruitment barriers.

Participants applied for roles across a range of employer sizes and industries and were selected to reflect a variety of attitudes towards Automated Decision-Making (ADM), including positive, negative, and ambivalent views.

The sample was further divided into four focus groups, each with specific criteria:

- **Group 1: High Volume/Entry Level Roles:** This group included participants with experience applying for entry-level positions in sectors such as retail, customer service, warehousing, and hospitality.

- **Group 2: Graduate/Early Career Roles:** This group comprised participants applying for graduate schemes and early career roles, with experience using recruitment tools like online numerical/verbal reasoning assessments, in-person assessment centres, and one-way video interviews.

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[1] Please note: Revealing Reality sample for people who had negative experiences and attitudes towards ADM, but it is important to note that it not completely certain that ADM was used in their recent applications.

- **Group 3: Mid-Level Professional/Skilled Roles:** This group included participants applying for mid-level professional roles, also with experience of numerical/verbal reasoning online assessments, in-person assessment centres, and one-way video interviews.

- **Group 4: Negative ADM Attitudes:** This group was weighted towards participants who expressed negative attitudes towards ADM, and included participants across different industries and seniority levels. This sample was weighted towards those from marginalised groups.

Specifically for group 4, job candidates may not be certain they have experienced ADM in recruitment, which posed challenges for identifying appropriate participants for the research. Whilst some candidates might have been informed that ADM was being used, others may have experienced it unknowingly. The lack of clarity about ADM may also be layered on top of the emotional impacts of the recruitment process. To overcome this challenge, Revealing Reality targeted recruitment through known ADM processes where possible, using careful screening and documentary evidence collection to identify whether participants may have experienced ADM in their job application.

Expert interviews

The landscape of recruitment ADM is rapidly evolving, with varying level of automation and human oversight being used. Without current knowledge of actual practices, there is a risk of missing important ADM touchpoints. To overcome this challenge, Revealing Reality conducted expert interviews with stakeholders across the recruitment field including in house recruiters, agency recruiters and those who work for a company selling ADM software.

Building context: experiences in recruitment

Job seeking experiences

The focus groups represented a diverse range of employment experiences and job types.

- **High Volume/Entry Level Group:** Participants in this group primarily applied for zero-hour, part-time, temporary, and some full-time positions. Job roles included exam invigilators, support workers, retail staff, warehouse workers, hospitality staff, and administrative assistants.
- **Graduate/Early Career Group:** This group focused on graduate programmes and internships, with participants pursuing careers in law, HR, digital marketing, recruitment, sales, film, business, operations management, project management, banking, the public sector, consulting, and research assistance.
- **Mid-Level Professional/Skilled Group:** Participants in this group sought full-time positions in the civil service, change management, physiotherapy, occupational therapy, HR, and financial services.
- **Negative ADM Opinions Group:** Participants in this group applied for a mixture of full-time, temporary, and contractor work across sectors including retail, HR, management consultancy, executive assistance, banking, personal care assistance, visitor experience assistance, and hospitality[2].

Participants consistently perceived a lack of transparency within recruitment processes. They generally preferred in-person interactions over online methods, believing it offered a personal advantage. Notably, participants within the graduate, negative attitudes, and entry-level groups reported predominantly negative experiences of the overall recruitment process.

Participants commonly reported a lack of responsiveness from employers when applying for jobs

Participants were selected to take part in the research based on their recent job applications within the last three to six months. Many participants reported making multiple applications during this period, had received numerous rejections and were still looking for jobs at the time of the focus groups. Their recent experiences may introduce a bias in their perceptions towards recruitment processes.

Particularly in the graduate, negative attitudes and entry level groups, participants reported having predominantly negative experiences around receiving responses from employers.

"I probably get, a 1% response rate when I apply directly on the website." – Negative attitudes group

This led some to approach job hunting as a 'numbers game' by using quick apply tools in order to get their CVs out to as many companies as possible.

"I've just been pressing Quick Apply to most jobs" – Entry level group

"When I've been applying for jobs the last month it's been 95% just sending CVs on Indeed." – Entry level group

Across the groups, many of the participants reported receiving multiple rejections, and are still looking for jobs, which may introduce a bias in their perceptions of recruitment processes.

Overall, participants perceived there was a lack of transparency within recruitment processes

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[2] As outlined in the 'About the project' section, Revealing Reality and the ICO decided to include this group to ensure that a wide range of people's experiences and views are heard. However, due to general low participant awareness of ADM use in recruitment, this was a challenging recruit as no-one was certain whether ADM was used in their application. To overcome this, Revealing Reality used careful screening and documentary evidence collection to identify participants who have negative experiences of ADM in recruitment.

Across the groups, participants consistently reported a lack of transparency throughout the job application and recruitment process.

Participants reported feeling there was a lack of transparency at various stages:

- Job advertisements were often perceived as inadequate, lacking sufficient detail about the role.
- Rejection emails were frequently criticised for being vague and failing to provide specific reasons for the application's denial.

Some participants found application activities and assessments confusing, expressing a lack of understanding regarding their purpose, evaluation metrics, and intended skills assessment.

One participant, who had to complete a virtual balloon pumping exercise, questioned, *"I think sometimes it comes out that you actually don't really know what they're trying to measure here…Is this a measurement of skill?"* – Graduate group

Most participants preferred in-person over online processes as they perceived this would give them an advantage

Across all groups, participants expressed a preference for in-person interactions over remote, online methods. Participants generally believed in-person recruitment would help them "shine through" and increase their chances of success. However, it is crucial to note that this perception is based on their subjective experiences and opinions.

In the graduate/early career group, participants highlighted the benefits of in-person assessment centres and job fairs for networking and receiving immediate feedback, even if they did not directly lead to job offers.

As one participant stated, *"[A recruitment event] gave me the opportunity to actually talk to people at the company and that's why I was put forward for an interview…being able to meet them and show my personality."* – Graduate group

Participants in the mid-senior group were more likely to be approached by recruiters and had fewer recent experiences with online assessments, preferring the more "personal" approach. They also emphasised the importance of in-person interactions, believing they could better demonstrate their aptitude and suitability for roles when meeting hiring teams. They felt that online assessments limited their ability to showcase their potential.

Participants in the negative ADM attitudes group highlighted the importance of personality fit in recruitment, which they believed automated systems could not accurately assess.

As one participant noted, *"If you've got eight candidates who can all do the job, ultimately [the recruiter] is going to go, that person fits with the team."* – Negative attitudes group

Stakeholder reflections on the current recruitment landscape

Industry experts described the recruitment landscape as actively evolving with the increasing integration of technology and ADM tools.

- All three experts reflected that technology was changing how recruitment processes were structured and carried out. A key characteristic of the current landscape identified was the tension between automating processes for efficiency and maintaining essential human involvement, where there needed to be a balance between leveraging technology and preserving human judgment.
- Stakeholders also indicated that data collection and measurement were becoming increasingly important in recruitment. ADM tools enabled employers to generate reports on recruitment metrics, and assess candidates based on specific criteria and skills.
- Concerns about the ethical implications of using ADM in recruitment were a significant theme. This included issues such as potential bias in algorithms, the need for fairness and transparency, and the importance of protecting candidate data.

- It was noted that recruiters and employers were in a position where they needed to adapt to these technological advancements. This involved understanding how to use ADM tools effectively, addressing the ethical challenges they present, and redefining the role of humans within the recruitment process.

Attitudes and expectations towards Automated decision-making

Reflections on the broad concept of automated decision-making

Despite limited understanding of ADM, participants largely perceived it as commonplace in recruitment. While they acknowledged the potential benefits for employers, such as increased efficiency, there was a prevailing perception that human decision-making offered better quality outcomes, although their rationale or justification for this view was often less clear. Participants also expressed the view that ADM might be more effective for junior and entry-level positions, suggesting a perceived limit to its effectiveness in more senior or specialised roles.

While there was limited understanding of what automated decision-making was, most participants thought it was common practice

Across the sample, participants generally had a limited understanding of ADM and how it worked. There did not initially seem to be a nuanced understanding of ADM, and participants mainly saw it as a binary tool at specific stages in the recruitment process, where either humans made decisions, or humans were not involved at all. For example, in early stages of a process, most participants felt that humans were not involved at all, and most decisions were made by machines, whereas later stages in an application did not involve automated decision making at all. When initially discussing the concept of ADM, participants did not consider a model where humans and automated tools 'worked together' to make a decision.

"Automated decision-making (ADM) in recruitment is when a computer program or algorithm is used to help make decisions about job candidates."

"The process of making a decision by automated means without any human involvement."

When initially presented with a broad definition of ADM in recruitment, participants did not have any strong feelings towards ADM. Most participants speculated that, based on their experiences of applying for roles in the last few months, using ADM was already common practice.

Some participants believed they had experienced ADM tools, but felt the overall process lacked transparency

Discussion of ADM led participants to reflect on their own experiences, with some suspecting they were subject to a decision made by an ADM tool.

"The speed on the turnaround time of a response and it's an automated rejection makes me think it's ADM" – Negative attitudes group

"Getting identical rejection emails across many different jobs is a sign [that it might be ADM]" – Graduate group

However, while participants thought ADM was being widely used, none could recall seeing any information about this while making applications. Many believed there was a lack of transparency from companies.

"I'm confident that it's being used, but I've not seen any transparency" – Graduate group

Participants did not know what type of ADM was being used, where in the recruitment process it was being used, and what information and data software was used to make a decision.

Stakeholder interviews insight: Transparency

Transparency and candidate experience were also highlighted as critical considerations by stakeholders. The in-house recruiter spoke to the importance of educating candidates about AI usage and being transparent about automated processes. There were plans to include a guide on their website to educate candidates about AI usage in recruitment, especially in tasks such as CV writing and interview preparation.

The agency recruiter mentioned the existence of candidate privacy policies but suggested that candidates may not always engage with them. It was noted that there was a candidate privacy policy available on career sites, although it was also noted that not many candidates actually read it.

Data privacy and ethical considerations were underscored as essential. The ADM software company owner emphasised the importance of data processing consent and compliance with regulations such as the EU AI Act.

The agency recruiter discussed GDPR and the right to human review. It was mentioned that there might be a law, possibly under GDPR, that grants individuals the right to be reviewed by a human when personal data, such as a CV, is being processed.

Some participants who had previous negative recruitment experiences initially thought ADM could be more fair than manual decision making

There was an assumption amongst some participants that manual decision making was inherently flawed due to personal biases. People recalled experiences where they felt they had experienced unfair bias in the recruitment process:

"I think one of the challenges, one of the things that recruiters come up against is the line managers saying I want this kind of a person for my team. Which is why you'll see very carefully crafted job ads that say would suit somebody who wants to develop in their career. Well that's clearly not going to go to a 55-year-old, is it?" – Negative attitudes group

"Even they [people in higher managerial roles] would say themselves, they have to hire a certain amount of people from each community or you know, they didn't get a job because of being from a community and it depends on whatever area you're in." – Negative attitudes group

For these participants, having technology making decisions might rectify the issues with manual decision making as they perceived that machine-led decisions could make more uniform and consistent choices. For some people, having automated tools making decisions was seen to be more impartial than humans.

One participant in the Negative attitudes group explained, *"You could walk into an interview and their face drops because of your age or sex or demographics or whatever it might be, and they may just decide I don't like middle aged men with brown hair, or I do like X or Y. At least it's consistent rather than just an initial I don't like the look of that person, which you would get with a human."*

Another participant reflected that, *"the process could eliminate bias and force people to behave equitably."* – Entry-level group

For another participant in the entry-level group, they felt automated tools had a better capacity to learn and over time, make the recruitment process more fair: *"It has the capacity to learn a lot quickly, and learn from past hires and make future hires more fair and equal."*

One participant in the negative attitudes group shared a positive recruitment experience they believed involved an efficient use of ADM. Despite not being able to immediately accept the offered position, her potential employer retained her application details.

This allowed them to quickly identify her as a suitable candidate for future openings. As she recounted, *"They kept me online on their files for the next three months and made me aware that if something else came up in the area...that I could be invited straight to interview if I was matched to a job."* She viewed this as an efficient practice, stating, *"that was quite good that they, having put you through that process, then had a holding period where you might get another opportunity with them."* For this participant, having an automated system that could manage candidate data and match individuals to new opportunities streamlined the recruitment process.

However, most participants generally assumed that decisions made by humans were better than decisions made by automated systems

While some participants felt that automated systems could make better decisions, the majority of participants reflected that humans may be better at making quality decisions.

Participants pointed out that humans were able to read subtext and use 'common sense' to make decisions, that may not always be reflected in hiring criteria. However, aside from this, the participants did not have any other explanation for why they thought humans might make better decisions.

"A human has the potential just to use their common sense and a computer does not have the ability of common sense." - Entry-level group

"Let's say someone comes in and they tick five of the six boxes, but they're still a very strong candidate. I feel like having a human recruiter, they'd understand the nuances of that. With a machine, it would be more, they tick five out of the six boxes, that's not a good enough candidate." - Entry-level group

Some participants also pointed out that systems may have bias built in, and were concerned that they could face unfair bias with the use of automated tools.

"Depending on what information it's been trained on, there's a very, very high potential for bias, particularly if you look at the sort of biases that have already been introduced into AI … they still tend to quite like young, white men." – Mid-senior group

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Stakeholder interviews insight: Concerns about bias

Concerns about bias and fairness were raised throughout the expert interviews.

The in-house recruiter specifically addressed the ethical concerns around video interviews and the steps taken to mitigate them. It was clarified that while the system scored other assessments, the video interviews were manually scored by the team to avoid bias and ensure fairness in the evaluation process.

The ADM software company owner pointed to fair assessment and bias reduction as a key driver for their technology. It was detailed that the software aimed to objectively identify well-matched candidates early in the process, ensuring a fair assessment without bias. The agency recruiter described the use of scorecards, but also acknowledged their limitations in capturing nuanced details. It was explained that while the scorecard could capture some nuances, it may not always provide detailed context for skills mentioned by applicants.

These perspectives collectively underscored the ongoing challenge of ensuring equitable and unbiased recruitment practices in the age of ADM.

Participants in the mid-senior group thought automated systems were more suitable to junior and entry-level roles

Participants applying for mid-senior jobs thought ADM might be better for junior roles, especially helping employers narrow down the pool of candidates efficiently.

 "In a customer service job where it's relatively easy to hire someone. You will typically get 100 or 200 applications…I can fully understand automating that." – Mid-senior group

Another participant in the mid-senior group said, *"If the automated process chucks out a few people who might have been better it doesn't really matter because you'll still have 10 people who could do the job."* But they didn't think automated decision making tools were good for senior or "specialised" jobs. They argued, *"The opportunity cost of outsourcing that [the recruitment decision] to something that doesn't actually know the world in the way that a human does, I think is a higher one."*

These participants also pointed out that tools might be helpful in screening participants in and out based on 'basic' requirements, however, some roles depend heavily on 'soft skills'.

Some of the mid-senior participants spoke about their experiences being on hiring panels, and reflected that when deciding who to hire, their body language, attitude, communication skills and how well they might fit into a team were key factors to consider, and factors, they felt, automated tools could not accurately and effectively measure.

"There is something to be said about those soft skills around a team player. You're able to, you know, collaborate well with people, to get on well with people." – Mid-senior group

"I think that it's at this stage that employees are less likely to use tools. I think it sounds really subjective and really unscientific. I think the final stage is often the panel being able to imagine working with this person." – Mid-senior group

Other participants felt that this might be a helpful tool but had very specific use-cases. Some saw ADM as being particularly useful for more 'technical' jobs but could not see how it might work in non-technical industries.

"I don't see how this is beneficial to creative jobs at all. It's very CV centric" – Graduate group

"It depends on the industry, I guess" – Graduate group

Stakeholder interviews insight: Tension between AI adoption and human oversight

A central tension between the desire to adopt AI for efficiency and the need to maintain human oversight was evident. This tension was viewed differently across the recruitment landscape. The in-house recruiter emphasised the importance of human judgment in specific areas to avoid bias. It was stated that while AI could potentially assist in initial candidate screening, the organisation focused on using screening questions and human judgment.

The ADM software company owner advocated for a strategic hybrid approach. The challenges in the adoption of AI in recruitment were explained, and employers were recommended to strategically insert technology at key points in the process while preserving human oversight.

The agency recruiter discussed how ADM was integrated into their processes. It was described that the entire recruitment workflow, including communicating with candidates and posting job ads, went through a one-stop tool for recruitment processes.

However, all experts highlighted the potential risks of over-reliance on automation and the importance of balancing it with human involvement.

Most participants recognised how employers might benefit from automated decision-making

Across the four focus groups, participants believed that having automated systems could be useful for employers for the following reasons:

- Time saving (e.g. ADM can process thousands of applications in less time than a human would take)
- Cost saving (e.g. less staff cost dedicated to processing applications)
- Resource-efficient (e.g. staff resource and efforts could be directed towards other business priorities if ADM were used in recruitment)

For example, one participant in the mid-senior group said, *"Not having senior members of staff having to focus on recruitment...would save hours every month."*

"The main advantage is for the employer in terms of scale and time efficiency" – Graduate group

"Resource, time, money" – Mid-senior group

"More pros for the recruiter" – Entry-level group

"Recruiters are able to process large volume of candidates" – Negative attitudes group

"In terms of high volume, yes, it's good to whittle down because it saves a recruiter time that they can be used elsewhere." – Mid-senior group

Reflections on different levels of automated decision-making

To explore the attitudes, awareness and reflections towards ADM in recruitment, the research took a deliberative approach, slowly and systematically introducing participants to more information about ADM. This was to make sure all participants had similar levels of understanding, and to gauge their reactions at different points.

After discussing the broad idea of ADM, more detail was shown to participants by presenting different levels and types of ADM[3].

Light touch
These are tools that automatically filter in or out applications depending on the basic requirements for a job. Think of it like a first check to make sure applications are complete and on time.

Example: A system that automatically rejects applications submitted after the deadline or those that are missing required documents.

Moderate
These tools help recruiters/employers narrow down the pool of applicants, but a human still makes the final decision about who to hire.

Example: Software that scans through CVs to find the ones that have the right keywords or skills for the job. The software helps recruiters save time, but they still personally review the resumes and make the final decision.

Comprehensive
These tools play a bigger role in the hiring process, helping to assess candidates and make recommendations. However, there's still some human oversight to make sure things are accurate.

Example: A game-based assessment that measures a candidate's problem-solving skills or personality. The software gives recommendations on who should be given a job. The recruiter can review the process.

Fully automated

These are systems where computers make most of the decisions in the hiring process with little to no human involvement.

Example: An AI system that screens CVs, schedules interviews, and even makes the final hiring decision based on set rules, without a recruiter needing to be involved.

The following section summarises the key insights on each level of automated decision making.

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[3] The term 'fully automated-decision making' was used, rather than 'solely ADM', to help participants understand the topic and the sense of scale of ADM better.

Light-touch ADM

Most participants felt comfortable with this level of automation at early stages in an application, and thought it was already in use

Participants largely perceived light-touch decision-making, which could involve tools that automatically filter applications based on basic job requirements, as common practice.

"I think this already happens. It's business as usual." – Entry level group

This level of ADM was not perceived as an 'automated' process, with many participants referring to this type of ADM as a simple administrative filter. For many participants, this was generally seen as acceptable and less concerning than more automated approaches.

"When it comes to the light touch, if it is just those things that are kind of expected of the candidate, I get the application in on time, get the precise documents there … if it just sifts on what I would consider almost kind of factual or you know, you either did it or you didn't or right or wrong kind of steps to have taken, I think that's fair enough." – Negative attitudes group

For instance, participants recognised that in high-volume and entry-level positions, manual screening for basic criteria would be time-consuming and prone to human error. Those applying for entry-level roles generally felt this type of ADM was fair and efficient, streamlining the initial stages of recruitment.

"I feel like it's fair really" – Entry-level group

Participants applying for graduate roles, while acknowledging its efficiency, considered it fair for initial screening but potentially less useful for assessing specific skills or potential beyond basic qualifications.

"I don't think it would always result in the best talent pool just because people would be omitted, maybe just because they haven't described their experience using the right language." – Graduate group

Essentially, light-touch ADM was viewed as a practical and often necessary step in managing large volumes of applications, ensuring that only those meeting fundamental requirements progressed, with minimal perceived risk of unfairness.

Moderate ADM

Participants felt that moderate decision-making tools could help employers make the recruitment process more efficient, but worried that systems could miss important context

Moderate decision-making tools, which assisted recruiters and employers in narrowing the applicant pool while still allowing a human to make the final hiring decision, were seen as potentially achieving a balance between automated efficiency and human oversight, though participants did not recall having any experience of this level of ADM.

"I think it's a fairer system than just fully relying on automation … you still have that human control so you reduce the risk of unfairness, you know, biases and stuff but you still get the bonus of speeding up the initial screening process." – Entry level group

"I think that this system could produce possibly higher quality candidates because once there's both systems and humans working on it, I the cons of both sides are kind of in check as well" – Entry Level group

Participants felt that these tools could be useful for tasks such as shortlisting and identifying candidates with specific skills or keywords, thereby allowing recruiters to focus only on qualified individuals who were well-aligned with the job specification.

"I think it's pretty good for getting rid of the ones where you just go, hey, this is an obviously useless application." – Mid-senior group

However, there were concerns about potential unfair bias, particularly algorithmic bias if the tools were trained on biased data, and the need for human intervention to ensure fairness.

Most participants liked the idea of human oversight, emphasising that a human could interpret nuances and contextual information that a machine might miss. They expressed concerns about over-reliance on keywords,

pointing out that this could be exclusionary towards those with language barriers or cultural differences, as well as those with non-traditional career paths.

"If you are using it to filter for keywords, not everyone's going to use the same language. Not everyone communicates in basic English when it comes to writing things. You may have somebody who is very technical and writes very technical, and then you could have somebody who doesn't write as technical but is better at the job. If you are going to use moderate ADM, it needs to have a wider function other than just looking for keywords." – Mid-senior group

There were also concerns about how accurate this could be, with some participants pointing out that applicants could easily outsmart the system by "keyword stuffing" their CVs, potentially leading to less qualified candidates being shortlisted.

"For every application, you'd have two pages with a list of essential criteria and you just have to try and include the keywords as much as possible in your CV and your cover letter." – Graduate group

"Over relying on key words could mean you miss out on good candidates." – Negative attitudes group

"It saves time and could speed up the whole process but using keywords isn't fair to see if someone is good for a job." – Negative attitudes group

Moderate ADM was seen as a potentially valuable tool for improving efficiency, but participants emphasised the critical importance of human judgment to mitigate potential biases, interpret contextual information, and ensure fair evaluation.

Comprehensive ADM

Most participants felt negatively towards comprehensive automated tools, though some felt that this could provide a fairer way to assess and shortlist candidates

Comprehensive decision-making tools, which played a larger role in the hiring process by assisting in candidate assessment and making recommendations while still maintaining human oversight, generally received negative reactions from participants, who worried about candidates being treated unfairly.

"[bias is] potentially age based because older people are not always but sometimes less able or capable or willing to use these kind of tools, you're potentially ruling out another area of the population. Or if you have a learning disability … and you're uncomfortable doing this kind of gameplay online. You're ruling out another area" – Negative attitudes group.

They expressed concerns about the confusing nature of assessments, where the test itself was perceived as illogical. Participants also expressed frustration with the design of recruitment tasks, such as games and tests.

"My problem is with the games themselves. Like, I feel like people are disadvantaged with the game anyway. So a computer going through and seeing what answers you gave and if that lines up with what they want you to say, I don't see that as a problem, actually I see the game as the problem." – Graduate group

When probed on whether participants thought and ADM was used to 'mark' their results, most participants with experience of testing believed that ADM was used to shortlist participants based on their results, but could not recall any communication about this, and felt the process as a whole lacked transparency.

Some participants also questioned the efficiency of a system where ADM was reviewed, believing human review of automated decisions to be redundant and adding unnecessary steps.

"To get AI to do that and then for you to have to go back on the results and check over them when you could have just looked in the first place, I think that would be a waste of time." – Mid-senior group

They felt that some assessments were not relevant to the job requirements and that they did not provide a holistic view of their abilities.

"I remember one of the games I got was you had to pump up a balloon. You had like two minutes and you pumped up balloons consistently by just clicking your mouse and they would burst at different points … the point was to try and pump them up as much as you could, then let them go and keep on going without bursting … for a graduate role, I thought, is this really … a measurement of skill?" – Graduate group

Some participants also raised concerns about certain groups of people being discriminated against. There were questions about how well a moderate ADM could make reasonable adjustments, or how it could take into account different conditions or cultural differences.

"It can be exclusionary, could be unfair to someone with a neurological issue for example… it can just rule out a lot of people" – Negative attitudes group

"What about people with different accents, or if people are not using the 'right' language if English is not their first language. It could result in a bias against these people" – Graduate group

"Reasonable adaptations may be missed out" – Entry-level group

However, a few participants also felt that this type of ADM might be more appropriate and have a place in job applications for more technical, graduate roles that required entry tests.

Some reacted positively, feeling that multiple stages and a scoring system provided a more tangible assessment of skills than simply relying on keywords in a CV, suggesting that it could offer a more objective and standardised evaluation.

"I think keywords are that key thing that I think plays into that unfairness. Whereas this stage, I actually think this is a good idea and I do think that this is a good thing for businesses to use because I guess it's giving the candidate an opportunity to put their skills into action … and I guess if you did a bad job of it, then maybe the job isn't for you. So if anything, I think that this stage is more fair than the previous." – Negative attitudes group

Comprehensive ADM was perceived as mainly being used in applications that required online tests, particularly for graduate roles, and were generally seen as one of the more 'extreme' use-cases of ADM. This elicited mixed reactions, with concerns about fairness, transparency, and efficiency balanced against the perceived benefits of more robust skill assessment.

Fully-automated ADM

All participants reacted negatively to a fully-automated decision-making (FADM) tool, with worries this would further dehumanise the recruitment process and make incorrect decisions

The concept of FADM systems received strongly negative reactions from all participants. Most participants did not believe this happened in practice, but expressed concerns about future use of FADM tools, especially on the grounds of discrimination against different groups of people. They worried that algorithms trained on historical data could perpetuate existing biases, leading to unfair outcomes for certain groups.

"I wonder how reasonable adaptations work in this context through the application process because they're not always things that can fit in a tick box and I don't know. I think you would have to have some kind of human involvement to make sure everyone was able to participate in this process if they needed some kind of adaptions." – Entry level group

Participants also felt it dehumanised the recruitment process, making it feel impersonal and unfair. They expressed concerns about the lack of opportunity to showcase their personality, communication skills, and other soft skills that are difficult to assess through automated systems.

"It doesn't take into account other things like personality and cultural fit that recruiters tend to take into account when they choose who they want to hire." – Graduate group

"I feel like personally half of the recruitment process is actually human interaction. Like when you go and have an interview with someone and they can pick up on the way you talk or how comfortable you seem and stuff, I just feel like AI wouldn't be able to pick up on that at all." – Graduate group

FADM was met with negative reactions, with significant concerns about fairness, discrimination, and the loss of human connection in the recruitment process, highlighting the importance of human judgment and empathy in hiring decisions.

Expectations of automated decision-making tools and systems

Participants across all focus groups expressed clear expectations regarding the use of ADM in recruitment, focusing on transparency, fairness, human oversight, and communication.

Communication and transparency

Participants expected clear communication and feedback throughout the recruitment process, regardless of whether ADM is used. They wanted to understand how decisions were being made about their applications and receive feedback on their performance.

Almost all participants stressed the need for transparency in how ADM is used in recruitment. Participants wanted to know when ADM was being employed and how it functioned. Participants stressed the importance of being informed about the use of ADM before, or at the start of, the application process.

"You should be told before you apply that [an ADM] is being used so you can make an informed decision whether you want to continue your application" – Mid-senior group

"I would want to know before I got to the application" – Negative group

"Candidates should be fully informed in terms of the criteria being used" – Entry-level group

"I would want to know how it works; what is it actually measuring?" – Mid-senior group

"They should tell you how much human oversight is involved and how much is controlled by a machine" – Negative attitudes group

Some participants also mentioned that applicants should be informed about what data was being collected about them, and how it was being used. The general expectation was that this should be readily available and accessible.

"It would be unethical to not be 100% transparent about its use and what [data] it's using" – Entry-level group

For some of the entry-level participants, having transparency about the technology being used was seen to 'even the playing field' and allow them to gain an understanding of how best to perform against an ADM.

"I'd want to know… you might be able to hack the system after a few attempts" – Entry-level group

However, while most participants spoke about the importance of being informed and having detailed information, many also admitted they probably would not look for this information, and do not look at current privacy and data policies when applying for jobs.

However, it is important to note that not all participants were uniformly in favour of complete transparency. A minority, often those who felt less technologically confident in their abilities, expressed concern that transparency could inadvertently create an uneven playing field. They argued that increased transparency might benefit those skilled in manipulating hiring systems, potentially shifting the focus from genuine candidate quality to proficiency in gaming ADM systems.

It is worth noting that motivations for transparency varied across participant groups. For high-volume job seekers, transparency was often seen as a means to level the playing field, while graduates and mid-senior professionals primarily advocated for it as a matter of principle.

Fairness

Recruitment, by its nature, is a discriminatory process, as it involved selecting one candidate over others. A few of the participants recognised this, reflecting on their own experiences of applying for a job:

"I think the final stage is often the panel being able to imagine working with this person. And I think there's all sorts of biases that are inbuilt into that." – Graduate group

However, participants held specific expectations regarding the fairness of ADM systems. They consistently expected ADM systems to be fair[4], unbiased, and free from discrimination against protected characteristics. Participants felt that ADM had access to sensitive data and information and could use this data to make hiring decisions. Though a couple of participants saw value in considering background context, to ensure diversity quotas are met, most participants disagreed with ADM using sensitive data and thought that protected characteristics should not be considered at all.

"They should not be able to take your age into account, for example" – Negative attitudes group

"There are some things it shouldn't be able to consider… and that should be recorded on paper… they shouldn't consider protected characteristics" – Entry-level group

"What does my religion have to do with how well I could do my job?" – Negative attitudes group

This expectation extended beyond ADM, and applied to recruitment practices in general:

"I'm from in Northern Ireland, on pretty much every job application here there will be like three boxes and I'll say like I'm a member of the Protestant community, the Roman Catholic community or neither community. And I personally just think that like that it shouldn't like exist at all… they [should] pick the best person for the job." – Negative attitudes group

Concerns were raised about the potential for algorithmic bias, specifically the possibility that ADM could perpetuate existing societal biases. Participants stressed the importance of responsible system design and usage to mitigate these biases. They wanted to ensure that ADM systems were designed and used in a way that did not unfairly disadvantage any group of people.

"It's made by humans so it could have all sorts of biases built into it… there needs to be a way to negate that" – Mid-senior group

Human oversight

While participants recognised the potential benefits of ADM, they also stressed the importance of human oversight in the recruitment process. They felt that human intervention is necessary to ensure fairness, address potential biases, and provide personalised feedback. Almost all participants believed the final decision should come down to humans, with regular 'spot-checks' at different stages taking place.

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[4] When asked what participants meant by 'fair', the general sense across the groups was that only factors that would impact job performance should be considered (e.g., team fit, skills).

Key takeaways

The findings in the report highlight key areas of concern and emphasize the need for careful consideration of ethical implications and best practices in the design and implementation of ADM systems.

- **Transparency is paramount:** Participants stressed the need for transparency regarding the use of ADM in recruitment processes. Job seekers wanted to know when and how ADM is being used, what data is being processed, and how decisions are made.
- **Human oversight is essential**: Despite recognising potential efficiencies, participants believed that human involvement remained crucial for ensuring fairness, addressing biases, and providing individual feedback.
- **Concerns about bias must be addressed:** The potential for ADM to perpetuate or amplify existing societal biases was a major concern. There was a strong expectation for ADM systems to be fair, unbiased, and non-discriminatory.
- **Candidate experience matters:** Participants' experiences in the recruitment process significantly influenced their perceptions of ADM systems. Issues, such as lack of communication, vague feedback, and impersonal processes negatively impacted attitudes towards ADM.
- **ADM's appropriateness is contextual:** Participants had mixed views on the appropriateness of ADM at different stages of recruitment. While "light-touch" ADM for initial filtering was seen as acceptable, there were significant concerns about more comprehensive or fully automated systems.