

Employer survey:

Netherlands

Institute for
Human Rights

The use of algorithms for recruitment and selection

The Netherlands Institute for Human Rights (hereafter: the Institute) commissioned research into the extent to which employers use algorithms in recruitment and selection and to what extent employers are aware of the risks of exclusion and discrimination. Based on this study, the Institute made a number of recommendations to the Dutch government and to employers.

The survey shows that in the recruitment phase, the (indirect) use of algorithms is the norm, with employers frequently using social media or online HR platforms to disseminate their vacancies (96% of Dutch employers) or actively search for candidates (71%). In addition, over one in ten employers use algorithms to select (12%) and assess candidates (12%), these are mainly larger employers. Employers have limited awareness that the use of algorithms can lead to discrimination and exclusion. Employers hardly check their systems for fairness.

Below is an English summary of the study, the original report in Dutch can be found [here](#).

Background to the study

Recruiting

Digital tools can help HR professionals find the right candidate for a vacancy, but there are also risks involved. Algorithms behind social media platforms determine who gets to see which job posting. Not everyone has the same chance to see a job posting on online platforms like LinkedIn and Facebook. The use of (self-learning) algorithms behind these platforms can lead to exclusion and discrimination. For example, [US research](#) found that an algorithm systematically showed vacancies for high-paying jobs less frequently to women than to men.

Even when a recruiter searches for suitable candidates through these platforms themselves, the algorithm determines which people come up first. Several platforms additionally offer to target ads to certain groups (gender or age). This creates the risk that certain groups may not see a job posting at all.

Selecting and assessing

In addition, there are more and more recruitment technologies on the market that can help employers select and assess candidates. This could be sophisticated software (such as Applicant Tracking Systems that can screen CVs or communicate with candidates in an automated way), or it could be 'simple' online application forms or the use of video applications and online assessments. This also carries risks of exclusion and discrimination.

For example, when an application form requests data on gender or age, which are (unconsciously) taken into account when assessing candidates. Or when systems are insufficiently digitally accessible for people with disabilities, even though they have the competencies required for the job.

Our publication [Recruiter or computer? \(2021\)](#) explains how the use of recruitment software can lead to discrimination and how the employer is responsible when this occurs. As a result, employers not only run the risk of exclusion or discrimination, which is contrary to the Dutch equal treatment legislation, but they may also miss out on suitable candidates.

The study

Research firm SEO Economisch Onderzoek conducted the study on behalf of the Institute. The study was conducted through a survey of 896 employers, from March to May 2022. The survey is based on available literature from scientific publications and (policy) research within the Netherlands. Weighting by size, class, and sector makes the survey response representative of the 'average' Dutch employer with at least 10 employees.

Algorithm use is broadly defined in this study and includes indirect use (such as social media and online platforms) and the use of digital application tools (such as video applications, digital assessments and online application forms). The term 'algorithm' includes all (semi)automated processes that support HR decisions within the recruitment and selection process.

This study looks at six stages in the recruitment and selection process:

1. Drafting the job description
2. Distributing the vacancy
3. Actively approaching potential candidates
4. Selecting candidates for the application round(s)
5. Assessing candidates
6. The final selection of the candidate(s)

The results

Drafting the job description

Software can improve accessibility and findability of job ads, but employers hardly use this yet (3%). Drafting the job posting is generally still done manually. Employers know that the use of words and images in the job posting affects the target audience that is reached. This knowledge is mainly used to tailor the job posting to the intended target group, rather than to avoid exclusion.

Distributing the vacancy

96% of employers distribute job vacancies via social media or online HR platforms. Employers mainly use their own online network for this purpose (80% spread the job posting via LinkedIn or other social media). It turns out that employers have a better idea of the group they do reach with the vacancy, than the group they do not.

Three in ten employers use targeted online advertising campaigns in recruitment, where job ads are shown to specific groups based on attributes that the advertiser can determine. As a result, there is a risk of exclusion of certain groups of potential candidates who do not see the vacancy and are therefore unable to respond.

Employers are often unaware that targeted online advertising can mean that not everyone has the same chance of seeing the job posting.

Actively approaching potential candidates

In addition, 71% of Dutch employers actively search for candidates on social media. When actively approaching candidates, employers already have an image in their minds of the ideal candidate. This can be exclusionary. Employers do say that they look at whether the prospective candidate contributes to a diverse workforce.

When employers actively approach candidates, they often have to deal with algorithms. They search based on profile information in online CV databases or through external parties and are shown the profiles deemed most 'relevant' by the algorithm. Because so many employers use these platforms, potential biases in the algorithms behind them also have major consequences.

Ways applicants can respond

Employers have also digitised the ways to respond to a job posting. With most employers, it is still possible to apply in the traditional ways by sending a letter and resume. At a large group of employers (46%), applicants can also respond to a vacancy via social media (LinkedIn, Facebook) and submit their CV or other details that way. This could mean that more social media users will respond than candidates who are not active on social media, which may affect the demographic composition of the group of applicants. 31% of employers (especially larger organisations) use an online application form. For 14% of the employers, submitting a video application is an (additional) way of responding to a vacancy.

Selecting candidates for the application round(s)

In the initial selection phase, many employers review incoming applications mainly manually and filter them for relevance by hand. 12% of employers use specialised algorithmic systems to support candidate selection. Larger employers so do more often. For example, algorithms are used in making an automatic preselection based on specific questions (such as immediate availability or level of education). Also, incoming applications can be automatically filtered based on (competency) tests.

In addition, one in six employers have candidates selected by an external party, which may use recruitment technologies itself.

Assessing candidates

The assessment of potential candidates is generally done on the basis of a CV, a cover letter, and/or an interview. Similar to selection, assessment of potential candidates is (partly) automated in 12% of cases. Automated assessments are relatively common among larger employers (33%) and especially through (online) assessments, personality tests and competency tests. Employers indicate that the application committee often consists of several people in order to have multiple views.

The final selection of the candidate

If there are several suitable candidates, employers usually use a follow-up interview to select the most suitable candidate, combined with checking references and/or once again juxtaposing CVs, cover letters and assessments. A 'likeability factor' or click with the candidate appears to play a part in the decision to hire someone in more than a quarter of cases. This can create room for (unconscious) biases in this last step of the recruitment and selection process. (Partially) automated assessment is rarely the deciding factor at this stage.

Awareness of employers

Employers say they have insight into which candidates they are reaching with their recruitment methods, but have little awareness of the groups they are not reaching. Employers are also often unaware that targeted online advertising can cause certain groups to see a vacancy less or not at all. Employers who use algorithms during selection and assessment are less likely to see a high risk in using algorithms than the average Dutch employer.

Also, in half the cases, employers do not know if a person checks the automated selection to see if individuals are unjustly deselected. In doing so, employers have limited insight into the reasons why candidates are automatically deselected. Employers hardly test recruitment technologies for equal opportunities.

A very small number of employers inform candidates about the role and operation of recruitment technologies during the application process. This applies to both employers who only use algorithms indirectly through external online channels and employers who (also) use algorithms to select and assess candidates. Employers hardly scrutinize the fairness of recruitment technologies.

Recommendations to the Dutch government

Inform employers about the exclusionary effects that the use of online platforms and online ads can have when recruiting candidates. In principle, it is not objectionable to advertise through these platforms, but in doing so, there is a risk that some groups may not see vacancies at all (especially when using targeted online advertising). Exclusion can play a role both when employers post vacancies and when employers search on LinkedIn, for example.

Make explicit in legislation how employers can test digital recruitment systems for discrimination.

The Bill on the Supervision of Equal Opportunities for Recruitment and Selection (the law is currently (August 2022) before the Dutch House of Representatives) contains a verification obligation that also applies to digital recruitment and selection:

- Point out employers' duty of care: they must ensure that the algorithms they procure do not discriminate. The software provider must explain to employers how the algorithm selects and evaluates candidates.
- Explore options to support employers in testing recruitment technologies for equal opportunities. At present, the Dutch law on privacy (General Data Protection Regulation, or in Dutch: Algemene verordening gegevensbescherming) leaves no room to keep track of personal data on certain groups (protected) to control the outcomes of algorithms. It remains to be seen whether this is desirable or whether other methods are sufficiently effective.
- Develop concrete tools for employers to test their digital systems for exclusionary and discriminatory effects. Procedures for recruitment and selection should be transparent, verifiable, and systematic. A non-transparent algorithm (black box) does not meet this requirement. Help employers by making tools available to detect whether an algorithm leads to discrimination or not.

Recommendations to employers

Distribute vacancies through multiple channels, this way you can avoid missing out on groups of candidates. Also post vacancies in a public place (such as a job board), so that everyone has a chance to see the vacancy.

Verify what the different channels produce in terms of (diversity of) candidates. Try to discover which groups of people – which may include suitable candidates – you are not yet reaching. For instance, active recruiting at educational institutions will yield

mostly young candidates. A search through social media mainly produces candidates who profile themselves well on social media. Online application procedures (such as video applications) may additionally appeal or deter certain groups of people.

Be aware that actively searching for candidates yourself through online platforms can also lead to (unconscious) exclusion of candidates. The algorithm can make certain groups appear at the top of search results much sooner. For example, if you search for people who have experience in a “typically male or female profession”, the algorithm may mainly put people of that gender at the top, while there are other candidates. In addition, (unconscious) personal biases can also influence your click behaviour.

Be critical with targeted online advertising. Several platforms, such as Facebook and LinkedIn, offer to target ads to certain groups (e.g., gender or specific age groups). This is not always a problem when it comes to advertising products for teenagers, for example, but it is when it comes to job ads.

If a platform bases the recommendation of vacancies to candidates on protected characteristics (such as age and gender), this can lead to unjustified exclusion of candidates. Also be critical of this when an external party (such as a marketing agency) uses targeted online advertising for your business. Ask about this.

Inform candidates in advance about the use of recruitment technologies if they are part of candidate selection and assessment. Equal treatment law requires recruitment and selection policies to be comprehensible, verifiable and transparent. If selection and assessment is (partly) automatic, then as an employer you need to be able to explain how this is done fairly.

Test whether the recruitment technologies or other digital systems you use do not lead to discrimination or other exclusionary effects.

- Make sure that a person checks how an algorithm comes to an assessment. Just looking at a candidate's automatic score and seeing if you have a click with a candidate is insufficient. If you develop or purchase a digital recruitment system, check or ask the supplier how the algorithm selects and evaluates candidates. This will most likely become a legal requirement. The Bill on the Supervision of Equal Opportunities for Recruitment and Selection contains a duty of verification that will also apply to digital recruitment and selection.
- Discrimination does not only arise through selection on characteristics that directly say something about gender, age or origin. Even seemingly neutral variables can cause (indirect) discrimination. For example, work experience can also (unintentionally) say something about the candidate's age or gender (e.g., due to periods of maternity leave). Testing digital systems for these potential biases requires an active effort from the employer, both prior to the application process and afterwards.
- Some digital competency tests cannot be used by people with disabilities, for example people who are visually or hearing impaired, even though they could be suitable for the job. Make sure online tests or games are accessible to people with disabilities or offer an alternative.