

HOW FAIR IS THE AMS ALGORITHM?

IN BRIEF

- The “prospects of labour market integration value” (IC value) predicts jobseekers’ chances based on statistics from previous years.
- The AMS algorithm follows the basic assumption that future events can be derived from past observations.
- The IC value has far-reaching consequences for AMS counselling practice and for jobseekers.
- Therefore, transparency and the right to appeal as well as public participation are needed.

WHAT IS IT ABOUT?

The Austrian Public Employment Service (AMS) plans to introduce the so-called AMS algorithm. Termed AMAS (Arbeitsmarktchancen-Assistenz-System; labour market opportunities assistance system), the algorithm is a decision support system to predict jobseekers’ future opportunities on the basis of statistics from previous years. Jobseekers are divided into three groups according to their “prospects for integration”, i.e. chances of entering the labour market (see ITA Dossier No. 43). Funding is to be directed primarily to the “middle” segment. The AMAS thus follows the basic assumption that future events can be derived from past observations. Disruptive events such as economic crises or the Covid-19 pandemic clearly show that this is not always the case. But what is actually behind these “prospects for integration” and what can they say about a person? The AMAS puts people with similar characteristics in a group (“constellation”) and relates them to a short-term and a long-term “integration criterion” (finding employment within a certain time for a fixed duration).

If 25 people out of 50 people in a specific constellation fulfill the integration criterion, this will result in a forecast of 50% for the “prospects for integration” for future jobseekers who are assigned to this constellation. It is assumed that there is homogeneity of opportunity within “constellations”. For instance, “health impairment” is represented by a simple “yes/no” choice.

AMS IT system feature “labour market opportunity”

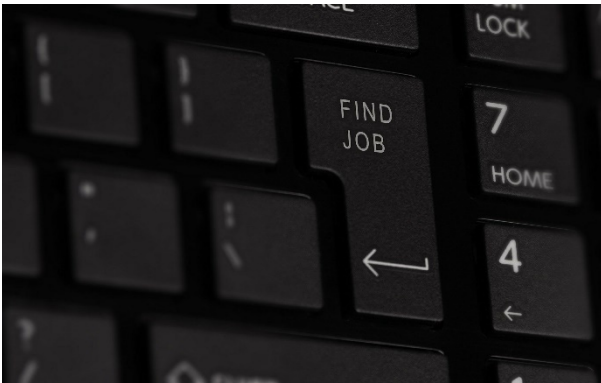
No consideration is given to what specific impairment a jobseeker may have, nor what occupation that person would like to pursue. More specifically, if someone used a wheelchair, this might be a problem in some professions, but not in many others. Similarly, the categories “education” or “economic sector” are not mapped very precisely. In the AMS computer system, the “prospects of labour market integration value” (IC value) is displayed as an “additional feature” that is supposed to serve as a “second opinion”, as the AMS describes it. The final decision is in the hands of the AMS counsellors, who can reclassify jobseekers, but must find and record a reason for this in the entry form.

BASIC DATA

- Project title:** An algorithm for the unemployed?
- Project team:** D. Allhutter, A. Mager (in a consortium)
- Duration:** 08/2019-10/2020
- Funded by:** AK Oberösterreich

KEY RESULTS

Based on internal as well as publicly published AMS documents, the conceptual, technical, and social implementation of the system was examined. Because of the broad characteristics of the categories and constellations, the IC value constitutes a gross simplification of a complex biography. Moreover, the value does not merely function as an additional feature in counselling practice, but has far-reaching consequences: it shifts the focus of client contact from individual needs for personal support to labour market opportunities based on population calculations.



Less focus on personal needs.

This changes the working practice of AMS counsellors significantly from personal counselling to the processing of a series of “tasks” as required by the assistance system. Given the already limited counselling time, a routine adoption of the computer-generated classification is likely. The system provides incentives to follow the calculated IC value rather than “correct” it; for example, by requiring a justification for the reclassification to be written down. The shift from personal needs to population-based calculations has also serious consequences for jobseekers. For them, the focus on the IC value and the classification means that their biography and abilities are reduced to a seemingly “objective” value that is supposed to provide information about their prospects on the labour market. The requirement that the AMS provides customer-oriented support is offset by reducing personal biographies to computer-generated values.

WHAT TO DO?

Automated and semi-automated decision-making systems such as the AMS algorithm strongly interfere with existing processes and practices.

- We therefore recommend the highest possible **transparency and accountability**, achieved through, for example, rights of inspection and objection for those affected, public consultations, and teaching AMS counsellors and clients critical skills in case these are used. However, non-technical solutions such as a good counsellor-to-jobseeker ratio must not be forgotten in order to enable counselling based on individual support needs.
- **Anti-discrimination** measures and the interests of different stakeholders must be considered when developing such systems. A requirements assessment should include external groups, in particular jobseekers or associations supporting the unemployed.
- With regard to the **accountability** of (semi)public institutions, system transparency and data transparency are needed to enable transparent evaluation from a technical, fundamental rights, and rule-of-law point of view.
- Furthermore, existing **fundamental rights** must be respected and new/adapted legal foundations, committees, and supervisory bodies as well as new audit procedures must be established.

FURTHER READING

Allhutter, D., Cech, F., Fischer, F., Grill, G., Mager, A. (2020): Algorithmic Profiling of Job Seekers in Austria: How Austerity Politics Are Made Effective. *Frontiers in Big Data* 17 (5).
frontiersin.org/articles/10.3389/fdata.2020.0000_5/full

CONTACT

Astrid Mager
Email: tamail@oeaw.ac.at
Phone: +43 1 51581-6582

