



**Stellenbosch
Business School**
STELLENBOSCH UNIVERSITY



AACSB
ACCREDITED



**ASSOCIATION
AMBA**
ACCREDITED

Scan@IFR

AI, AI, ON THE WALL, WHO IS THE BEST APPLICANT OF THEM ALL?

Think of a recent time you applied for a job or to a university. Before a human ever saw your application, chances are a recruiter or admissions team first used artificial intelligence (AI) to filter candidates by age, level of education, years of experience, and other qualifying metrics, to ensure only those who meet certain preferences advance to the next round. If you made it through, you were probably invited to a meeting so the team could get to know you better (your personality, leadership potential, cultural fit). But what if this step was no longer necessary? Imagine they already knew all this about you, based on an AI assessment of the headshot you submitted with your application.

New research suggests AI can now guess parts of your personality just from a photo of your face, and these face-based personality signals can predict outcomes about as well as traditional signals, making them attractive as low-cost filters in hiring and admissions.

Brief explainer of the study

Researchers in the United States analysed nearly 97 000 MBA graduates by running their LinkedIn profile photos through an AI model trained to estimate the “Big Five” personality traits: conscientiousness, extraversion, agreeableness, neuroticism, and openness. Personality measurements were then compared to the graduates' career data (university ranking, starting salary, five-year pay growth, promotions, job switches, and occupational sorting). The results were striking: AI-inferred personality traits predicted how well people matched into occupations that value certain traits, e.g., high conscientiousness (persistence, reliability, attention to detail) was linked to legal, compliance, and financial roles, while low agreeableness (competitiveness, assertiveness, tough-mindedness) appeared more often in analytical or technical fields. But beyond that, the model also predicted career achievements, e.g., extraversion was correlated with high seniority early on while neuroticism was linked to shorter job tenure, and strong personality-occupation alignment boosted pay. These effects held even with alternative photo sets and controls for race, attractiveness, university quality, and test scores. The study suggests that AI-driven personality estimates may become the next frontier of applicant screening.

A gamechanger for institutional admissions and hiring?

For well over a century, screening has relied on formal credentials (degrees, exam results, CVs) as proxy signals for a candidate's “potential” or “fit”, largely because the real signals (personality and soft skills) have been too costly to measure fully, especially at scale. Technology has helped (e.g., video interview platforms with algorithmic behavioural scoring) but these are still resource-intensive, requiring senior staff involvement. Plus, applicants can bypass these systems by lying to sound more conscientious or less neurotic than what they really are. A more effective and more scalable technology solution therefore seems compelling.



**Stellenbosch
Business School**
STELLENBOSCH UNIVERSITY



Scan@IFR

And the demand exists. Bad hires are expensive. However, another reason why institutions want better prediction for performance and retention is for fear of blame and defensibility. When a human hires the “wrong” person, they are often accused of bias or poor judgement. In this context, algorithmic filters can shift responsibility as they feel more standardised and consistent.

Strong possibility of public pushback

The ethical and legal arguments against this practice are not hard to imagine. Civil society groups will have major objections based on privacy and fairness, akin to resistance seen against AI-based facial recognition used for public surveillance. But with the latter, participation is non-consensual, which magnifies the invasiveness. Applying for a job or to a university is voluntary, and so criticism could be easier to dismiss.

Indeed, if you think it is abhorrent that one’s chances at a job could be shaped by what an algorithm thinks of your headshot, that might be a kneejerk reaction. As humans, we form snap judgements from faces all the time. Think of the last time you were in an interview. Chances are you immediately (perhaps subconsciously) classified the candidate’s personality (and fit) in your mind based on the first moments of interacting with them. So, the use of AI in this context does not introduce *new judgement*, but automated, standardised judgement. However, while this may feel objective, the real risk is that historical biases get locked in.

Where might this go?

Path A: Continued research further proves feasibility. Early commercial applications produce excellent results. The adoption of AI-inferred personality for recruitment becomes widespread. This tech utopian future feels plausible in the context of Africa’s youth bulge, which will likely require new systems for dealing with extraordinarily high volumes of university and job applications. Whether chosen out of necessity or convenience, in this scenario, dissent fades and optimisation and maximum efficiency are prioritised. As a result, people start optimising their photos, expressions, posture, and grooming. New forms of coaching emerge (“How to look conscientious / trustworthy / leadership-ready”) and schools and employers begin to teach “algorithm-facing behavior”. As a second-order effect, soft skills become performative and strategic, not developmental, and authenticity begins to lose its value.

Path B: Low institutional adoption due to effective public pushback (or underwhelming results following beta product rollouts). In this future, systems of human-centred constraint prevail. Innovators continue iterating on AI products for recruitment, but by and large it is people who preside over the applicant funnel (and its “last mile” in particular).



**Stellenbosch
Business School**
STELLENBOSCH UNIVERSITY



Scan@IFR

Path C: In a fractured future, institutional adoption advances amidst evolving public resistance. Many employers that implement AI-face-filtering achieve great results, earning praise from their shareholders and staff. Other organisations reject the tech, and differentiate themselves on this basis, akin to when salary disclosure in job ads was leveraged for social capital in the 2020s. In this faction, applicants mobilise to exercise and expand their rights around explanation and contestation. They do not question the tech's efficacy so much as its socio-cultural implications. This divides individuals and institutions.

These are possible futures based on the model's current capability described in the research. If we suspend today's limits and imagine this tech becoming more powerful, the implications extend well beyond estimating the "Big Five", especially if inputs begin to include digital traces other than just photos, like voice or video. It is plausible that more advanced systems could infer signals like learning agility, mood patterns, substance use risk, or sleep deprivation. The more dimensions AI can infer, the greater the ethical, legal and institutional consequences become.

Guenzel, M., Kogan, S., Niessner, M., & Shue, K. (2026). *AI personality extraction from faces: Labor market implications* (NBER Working Paper No. 34808). National Bureau of Economic Research.
<https://doi.org/10.3386/w34808>

Smoliga, J. (2025, 11 Nov). *When a face "predicts" success: The return of digital physiognomy. Beyond the Abstract.*
<https://beyondtheabstract.substack.com/p/when-a-face-predicts-success-the>

Khan, J. (2026, 8 Jan). *Top 10 AI video interview tools for recruiters.* Qureos.
<https://www.quireos.com/hiring-guide/top-ai-video-interview-tools>