Recruiters using AI and virtual-reality simulations may hire based on a candidate’s behavior, personality traits and physiological responses – no resumes needed

By Hilke Schellmann
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Most job hunters and hiring managers would agree: An interview isn’t the ideal way to find the best person for the job. Applicants sometimes exaggerate their strengths; managers rely on subjective information to make decisions.

And the problem is growing, as rapid technological change forces companies to constantly adjust to new ways of working. Once-indispensable hard skills or experience may be less and less predictive of a candidate’s chances of success on the job.

“If we accept the fact that jobs are going to be disrupted and replaced, and 80 percent of the jobs you will find in 2030 or 2040 don’t exist today, and there is a devaluation of expertise and knowledge, then you have to bet on things like curiosity, learning ability, people skills and motivation,” says Tomas Chamorro-Premuzic, chief talent scientist at ManpowerGroup and a professor of business psychology at University College London and Columbia University.

In the not-too-distant future, employers may rely less on resumes and interviews and more on a candidate’s behavior, cognitive abilities, personality traits and physiological responses to decide whether someone is a good fit. Technology is already being developed to allow employers to analyze candidates’ online history, biometric data and real-time reactions to simulated on-the-job challenges.

These technologies raise concerns about ethics and fairness, and experts predict they will prompt legal challenges. In November, the nonprofit Electronic Privacy Information Center filed a complaint with the Federal Trade Commission urging the agency to investigate HireVue, a company that builds artificial-intelligence-based hiring tools, over concerns that its technology is not transparent and lacks accountability. HireVue declined to comment on the complaint and said in a statement that its technology “has less bias than traditional screening processes.” An Illinois statute takes effect this month requiring companies to notify job candidates when they use AI-based video interview tools. Legislation mandating companies inspect their algorithms for bias is under consideration in Congress.

Here, we take a look at the technologies that could reshape the job interview in the years ahead.

**Personality Profiling – With the Help of AI**

As soft skills gain importance, more employers will use AI to create personality profiles, generated from job candidates’ social-media profiles, LinkedIn accounts and other text posted online, as well as the words they use in virtual-reality simulations and video submissions.
A couple of vendors, including Humantic, already offer natural language processing-based tools to create instant candidate profiles for recruiters and employers. The companies say that the technology is based on traditional personality tests, including DiSC, a behavioral assessment tool, and the Big Five, which measures five personality traits. Instead of applicants filling out long questionnaires, an algorithm creates a personality analysis instantly and affordably, the startups say – with or without someone’s consent.

In her work helping companies select candidates for leadership positions, Tracy Levine of Atlanta-based Advantage Talent uses Humantic’s tool to find out whether candidates are open to new ideas. The tool helps her overcome her own biases, she says.

Some experts question whether these algorithms are as accurate as traditional methods. AI-based tools could also find language in a candidate’s social-media profiles indicating he or she has a medical condition, including depression. Organizational psychologists have argued that it would be unfair and possibly illegal for employers to use this information to make hiring decisions.

If personality profiling becomes more prevalent, a market for algorithms that assist applicants in burnishing their social-media histories and other online accounts could spring up, according to Ben Taylor, former chief data scientist at HireVue. That could include advising job hunters on what to delete or change to conform to specific personality profiles, he says.

**A ‘Credit Score’ for Skills**

Currently, many employers rely on candidates’ own assessments to determine applicants’ levels of expertise. One day, companies could automatically score skills using the text that candidates put online, such as LinkedIn posts and Twitter interactions. Experts predict this might first be used to evaluate software engineers’ coding abilities, since they often post code directly to platforms like GitHub.

“Companies will probably start offering certifications for various skills more often because it is becoming a bigger problem: I can claim I have a skill, I don’t have to prove it,” says Tara Behrend, an organizational psychology professor at George Washington University.

On hard skills such as programming and soft skills such as communication abilities, candidates could seek out or receive a number like a credit score. “You are going to see this whole market that does not really exist today,” says Mr. Taylor. “Candidates want it. They want to come across as a very competitive hire.”

Jenny Yang, a fellow at the Urban Institute and former commissioner of the Equal Employment Opportunity Commission, compared the experience to using a person’s high school SAT score to make hiring decisions throughout his or her life. “It does worry me some to think about static things that are hard to change – they are often correlated with wealth,” she says.

**Testing Job Performance – Virtually**

Employers are already using VR for on-the-job testing, training and diversity initiatives. Israel-based ActiView offers VR assessments for hiring, particularly for recent graduates with shorter resumes.
In a typical assessment, a candidate plays a cognitive game while wearing a headset and the system analyzes the person’s behavioral patterns. “Do you strategize before you start solving something or not so much? How decisive are you in your actions?” says Gil Asher, the company’s chief technology officer. Then the job seeker faces simulations of problems he or she might encounter on the job. “If it’s a customer-service candidate, we put them in front of an angry customer and see how they react,” says Mr. Asher.

Other makers of VR assessment tools are hesitant to use them for hiring decisions because some applicants experience vertigo or motion sickness while wearing headsets.

“You have to be very careful when you are designing an assessment that you are giving people a level playing field,” says Doug Reynolds, executive vice president at Development Dimensions International, which develops assessment tools and VR systems to build empathy in the workplace.

ActiView says it uses advanced headsets and conducts stationary VR tests, reducing vertigo. If job candidates still have problems, they can request an alternative test.

Companies such as HireVue test candidates using video simulations, and use algorithms to determine who’s a good fit. Its clients have included Hilton Worldwide Holdings Inc., Unilever PLC and other Fortune 500 companies. (Unilever declined to comment. Hilton said in a statement that it has used HireVue’s predictive assessment tools in the past as “one data point among many” that its recruiters use to make hiring decisions.)

**The Right Brain for the Job**

In the next five years, wearable health technology will be able to measure blood pressure, eye movements and skin conductivity, or how well skin transfers electricity, to predict arousal and anxiety, computer scientists say. These technologies could help companies assess job seekers’ stress and engagement levels and self-regulation skills during VR simulations.

The systems might even be able to monitor brain waves, some experts say, to figure out whether someone has the optimal brain for a job based on the brain structures of employees who are successful in the role.

But it’s difficult to correctly interpret biometric data. Even if you can detect brain waves, “are they for stress or are they more deep thinking?” says Santosh Kumar, a computer science professor at the University of Memphis, who develops wearable health technology.

Biometric information could also reveal medical issues, such as heart conditions, mental illnesses or disabilities – which could be illegal.

“If something is an accurate predictor or a valid signal, but it is beyond people’s control, I think the level of fairness is questionable,” says Dr. Chamorro-Premuzic.