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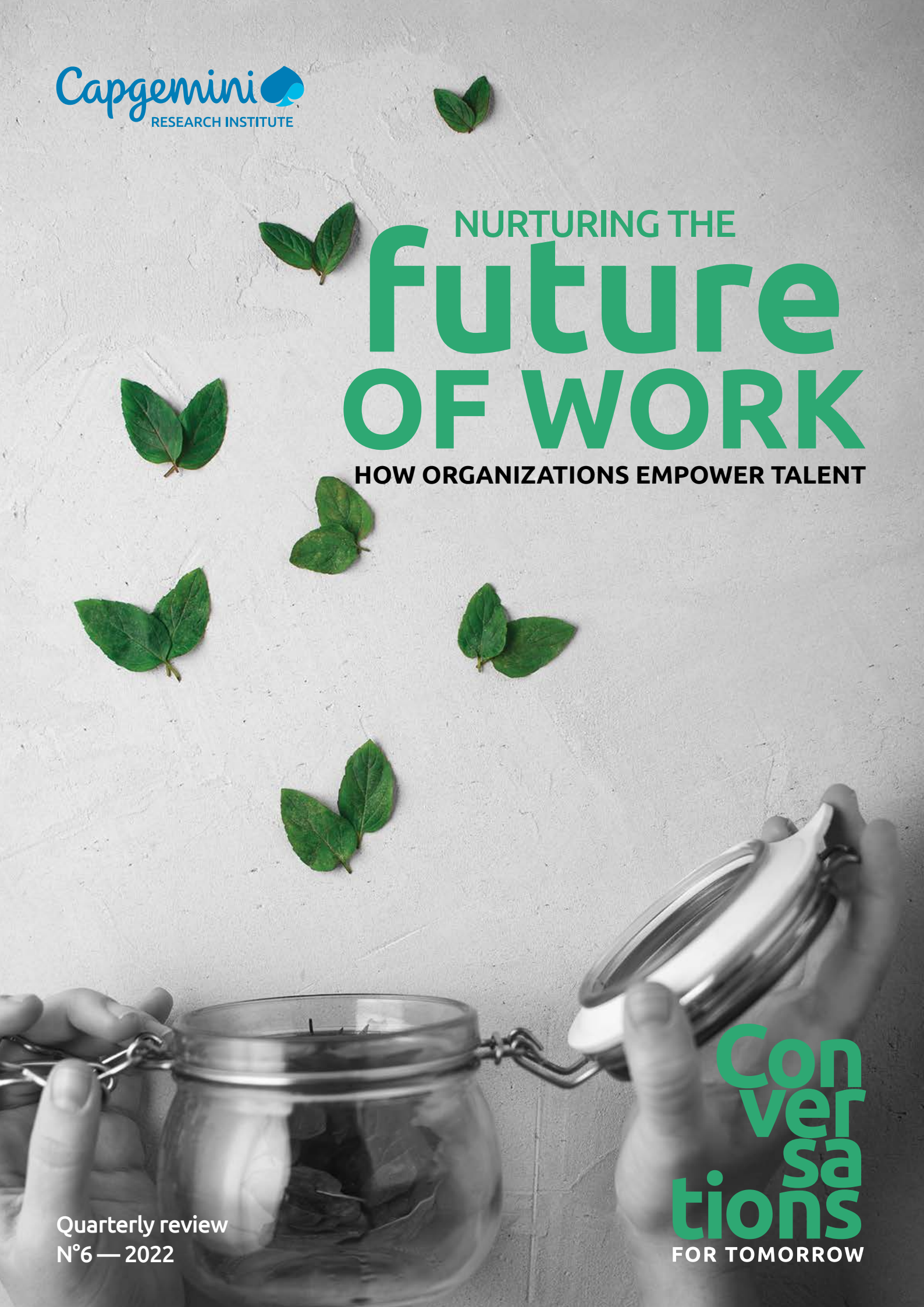
HOW ORGANIZATIONS EMPOWER TALENT



Conversations
FOR TOMORROW

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Conversations FOR TOMORROW

From the Desk of

Stijn Broecke
Senior Economist,
OECD

AI AND WORK: WILL IT BE DIFFERENT THIS TIME?

Stijn Broecke is a senior economist at the OECD, where he leads the organization's Future of Work initiative. He holds a PhD in Economics from the University of London and has over 15 years' experience working in government (Mozambique and UK) and international organizations (African Development Bank and OECD).

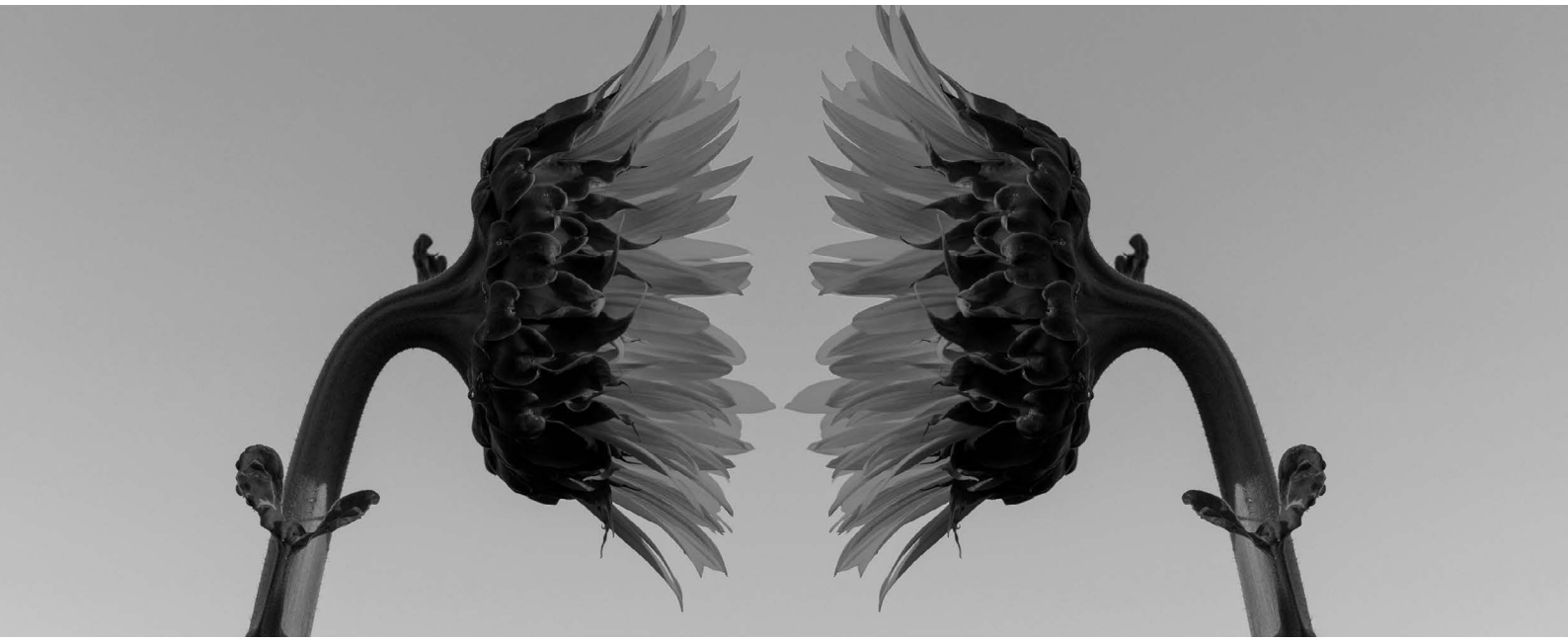
From the Desk of

In 2019, fueled by concerns about robots and automation taking over, the OECD dedicated its flagship Employment Outlook report to the hot topic of the future of work. The publication reviewed the evidence and concluded, reassuringly, that, "We are not heading for a jobless future anytime soon."

A steep learning curve

The OECD did, however, ring an alarm bell for lowly educated workers, many of whom find themselves in roles where their primary responsibility is for routine tasks that could be targeted for automation. The manufacturing sector was most heavily subject to this phenomenon, with employment having declined by 20 percent over just the past two decades.

In parallel, the share of highly skilled jobs has risen by 25 percent over the same time period, presenting opportunities for highly educated workers. Understandably, the OECD subsequently classified the promotion of education and skills development as a key policy priority for smoothing the transition to the future world of work.



AI starts to rival human intelligence

Fast-forward just a few years and the OECD is re-investigating the same issue in light of the appearance of a new kid that has appeared on the block: artificial intelligence (AI).

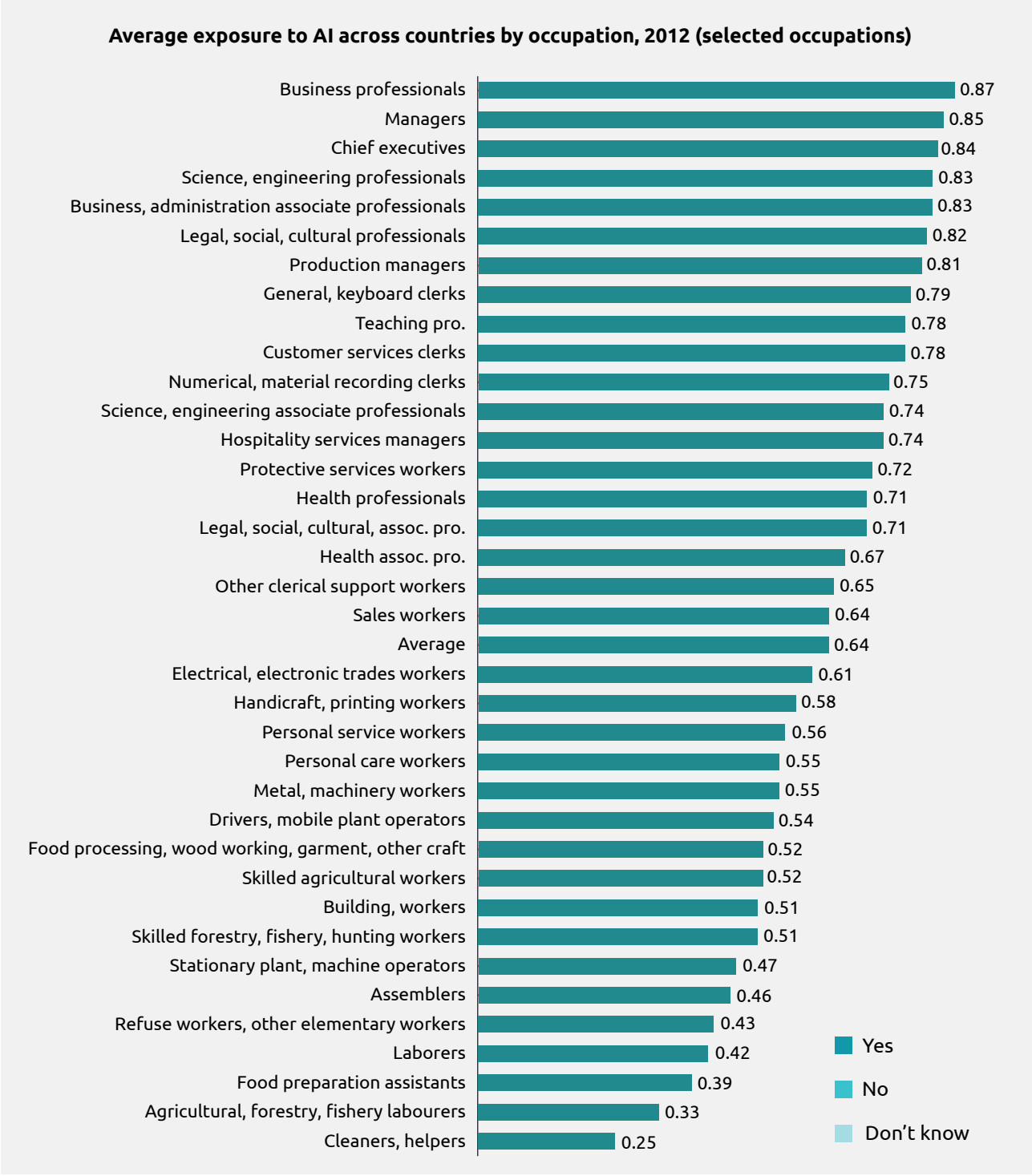
AI comprises a range of new technologies that automate the processing of vast quantities and all types of data, often combined with the ability to learn, analyze, make recommendations, and decision-making assistance, rapidly and at scale.

AI has made possible tremendous progress across a range of applications, such as: information ordering, memorization, perceptual speed, and deductive reasoning. All of these are related to non-routine, cognitive tasks. As a result, the occupations that have been most exposed to the recent advances in AI have been in the highly skilled category: business professionals, managers, science and engineering professionals, and legal, social, and cultural professionals (Georgieff and Hyee, 2022) (see Figure 1).

This contrasts markedly with the impact of previous waves of automating technologies, which have primarily taken over the routine tasks performed by lower-skilled workers.

In a highly competitive labor market, organizations cannot afford to use biased AI tools that may filter out highly eligible but non-traditional candidates.

Figure 1: Highly-educated occupations are the most exposed to developments in AI

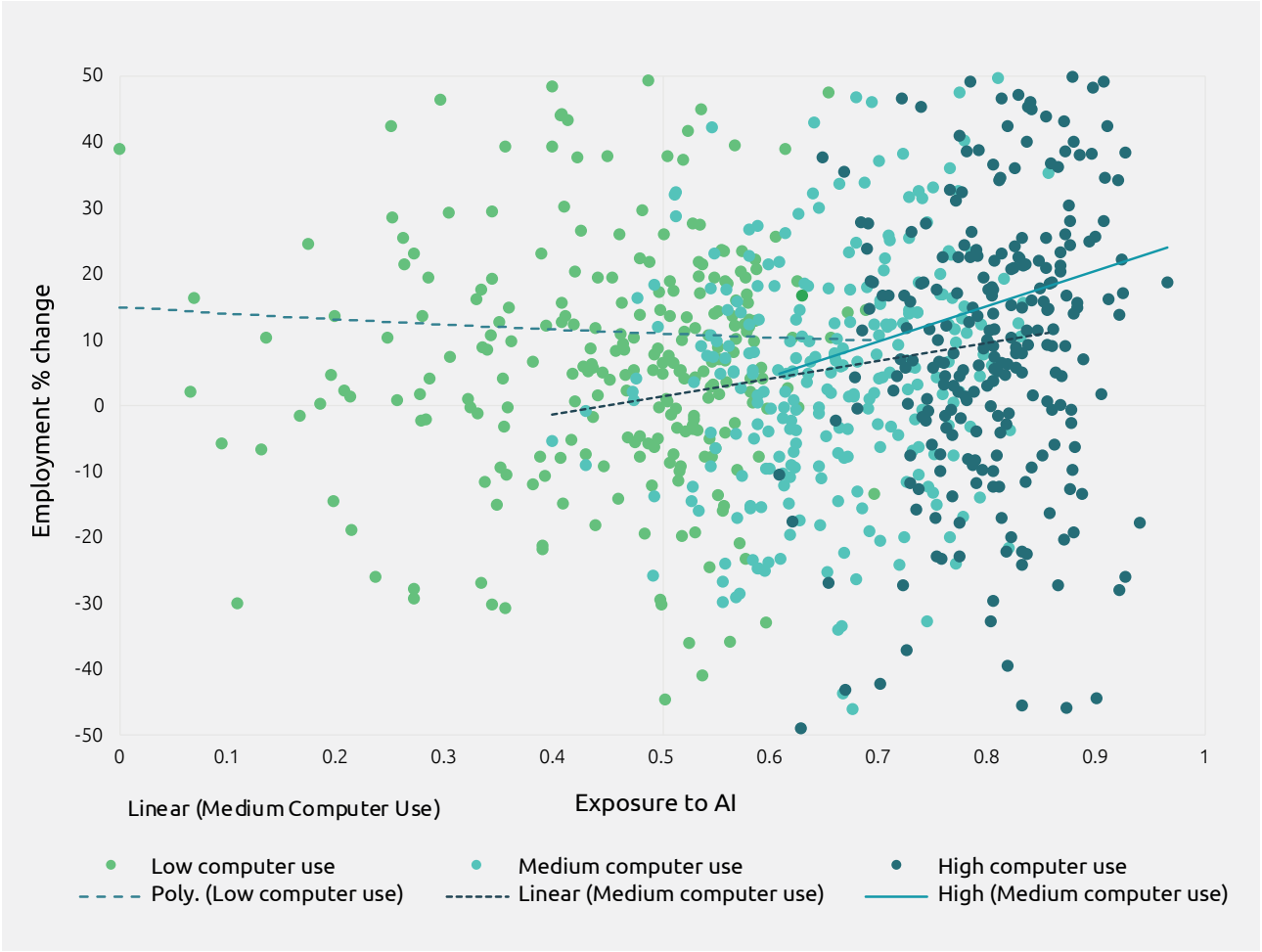


Note: The averages presented are unweighted. Cross-country averages are taken over the 23 countries included in the analysis.
Source: Georgieff and Hyee (2021)

The robots are not taking over

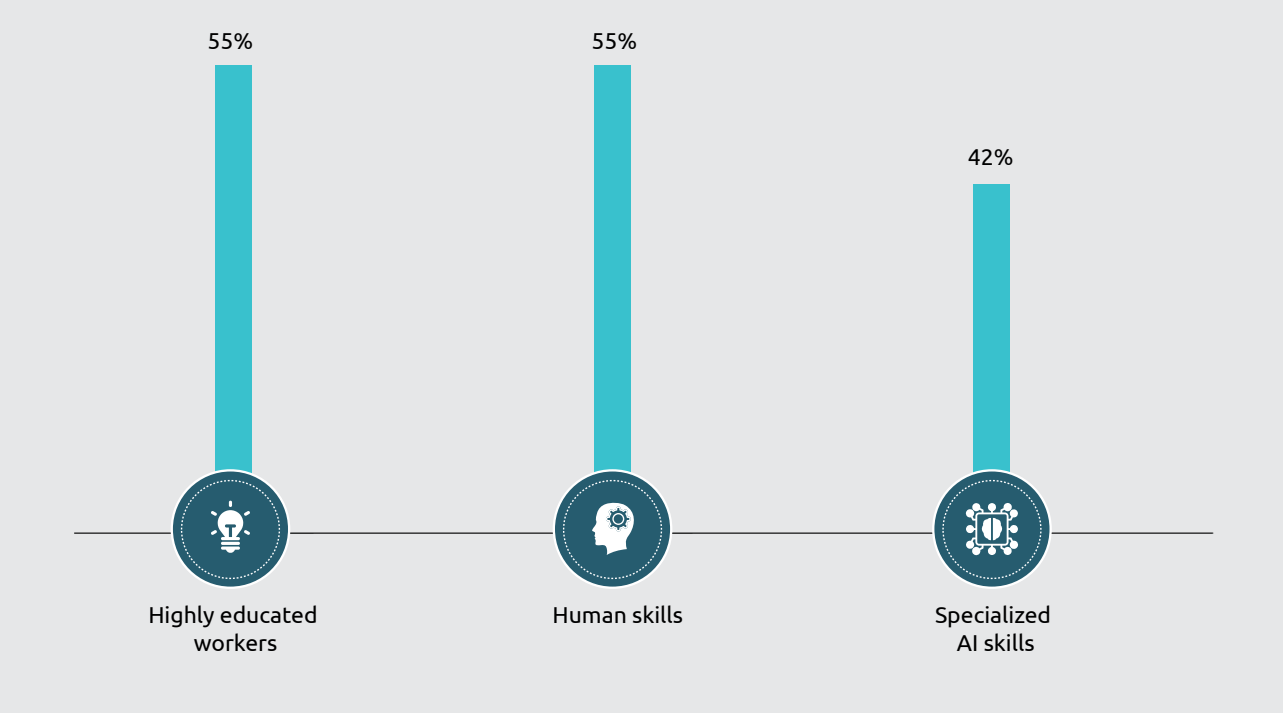
Despite widespread fears, higher exposure to AI may not necessarily be a bad thing for workers, provided they possess the skills to use these technologies effectively. Recent OECD research found that, in 2012-19, greater exposure to AI was associated with a higher rate of employment in occupations that involve high computer use (Georgieff and Hyee, 2022) (Figure 2).

Figure 2: AI exposure is associated with higher employment growth in occupations where computer use is high



Evidence collected by the OECD among employers in the manufacturing and finance sectors of seven OECD countries appears to confirm that the demand for highly educated workers and "human skills" increases when AI is adopted in the workplace (Figure 3). (Broecke, Lane, and Williams, forthcoming.)

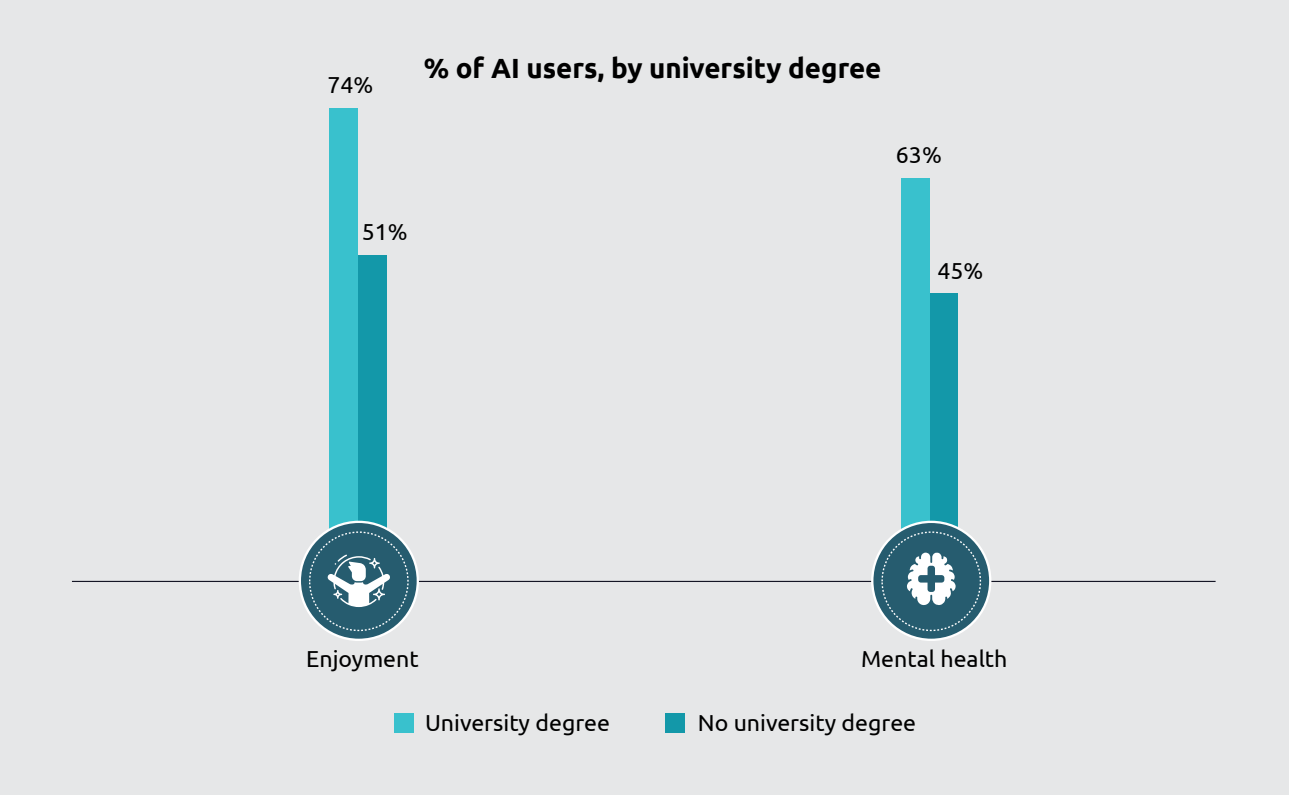
Figure 3: Employers say that AI has increased the importance of highly educated workers and of human skills (% of employers agreeing that the implementation of AI has increased the importance of the following elements).



Source: OECD employer survey on the impact of AI on the labour market (2022), N=743

As well as being in high demand, highly skilled workers may also benefit more from AI in terms of work satisfaction. In a survey of workers in the manufacturing and finance sectors, AI users with university degrees were more likely to report that AI had improved their enjoyment of work and their mental health, compared to AI users without a university degree (Broecke, Lane, and Williams, forthcoming) (Figure 4).

Figure 4: AI users with a university degree are more likely to report that AI improved their enjoyment of work as well as mental health (% agreeing that the introduction of AI has improved the following aspects).

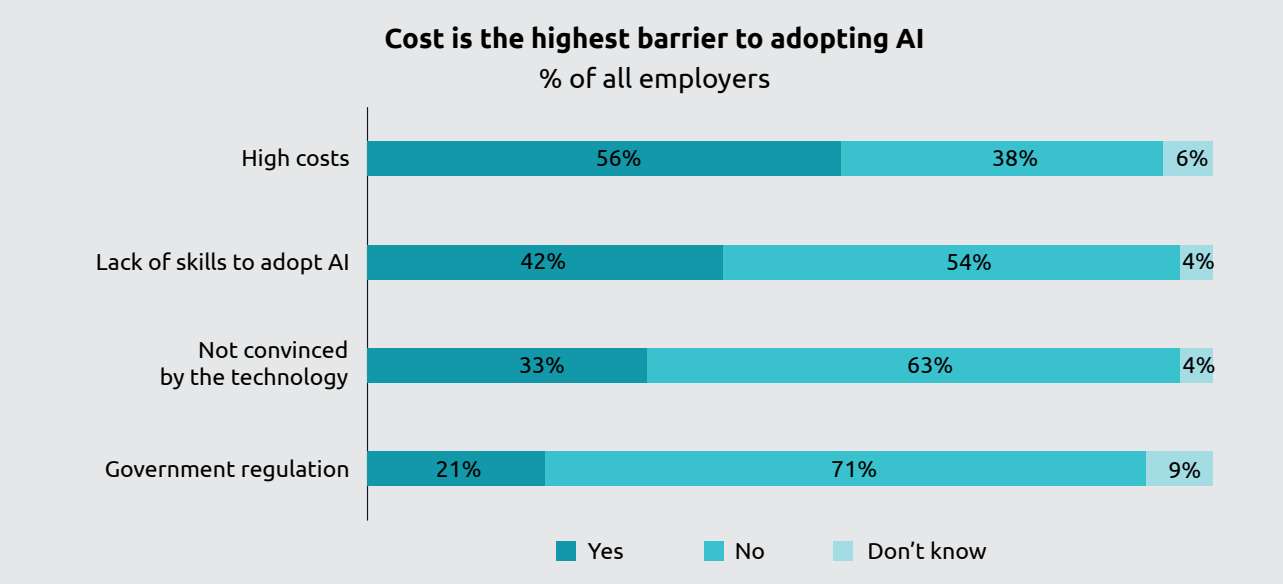


Source: OECD worker survey on the impact of AI on the labour market (2022), N=2,143

"In a significant majority of case studies, the implementation of AI technologies had no reported impact on the quantity of jobs in the most affected areas."

These findings suggest that highly skilled workers may adapt more easily to the use of AI at work and consequently be better positioned to reap the benefits. Moreover, their jobs may not be at risk from high exposure to AI because they may possess skills and abilities that cannot yet be automated, such as skills related to complex problem-solving, high-level management, and social interaction (Lassébie and Quintini, forthcoming).

Figure 5: A lack of skills is an important barrier to the greater adoption of AI



Source: OECD employer survey on the impact of AI on the labour market (2022), N=2,053

Instilling the right skillsets

From a company perspective, along with the cost of the AI technology, a lack of skills is the principal barrier to the adoption of AI and is considered far more important a factor than government regulation or lack of corporate buy-in (Broecke, Lane, and Williams, forthcoming) (Figure 5).

Around two-thirds of companies say they address the evolving demand for different skills through training, while fewer than half say they do so through recruitment. Fewer than one in five, moreover, use attrition or redundancies to rebalance their workforces (Broecke, Lane, and Williams, forthcoming).

A broad reluctance on the part of organizations to make workers redundant emerges from another OECD study, which made detailed case studies of the use of AI in the manufacturing and finance sectors. In a significant majority of case studies, the implementation of AI technologies had no reported impact on the quantity of jobs in the most affected areas.

Where AI implementation did lead to a reduction in the quantity of jobs, firms said they managed the reduction in available positions through reallocation to other roles or business areas, or through attrition, allowing employment in specific occupations to diminish gradually over time by declining to fill vacant positions (Milanez, forthcoming).

The provision of adequate training not only ensures that companies have the skills they require to adopt AI effectively, it also makes workers more likely to report that AI has had a positive outcome on their performance. Ninety percent of workers who had received training to work with AI said that AI had improved their performance, compared to just 70 percent of those who hadn't received training (Broecke, Lane, and Williams, forthcoming).

> **"Workers in companies that consulted workers were nearly 20 percentage points more likely to say that AI had improved their work performance, compared to workers in companies that did not."**

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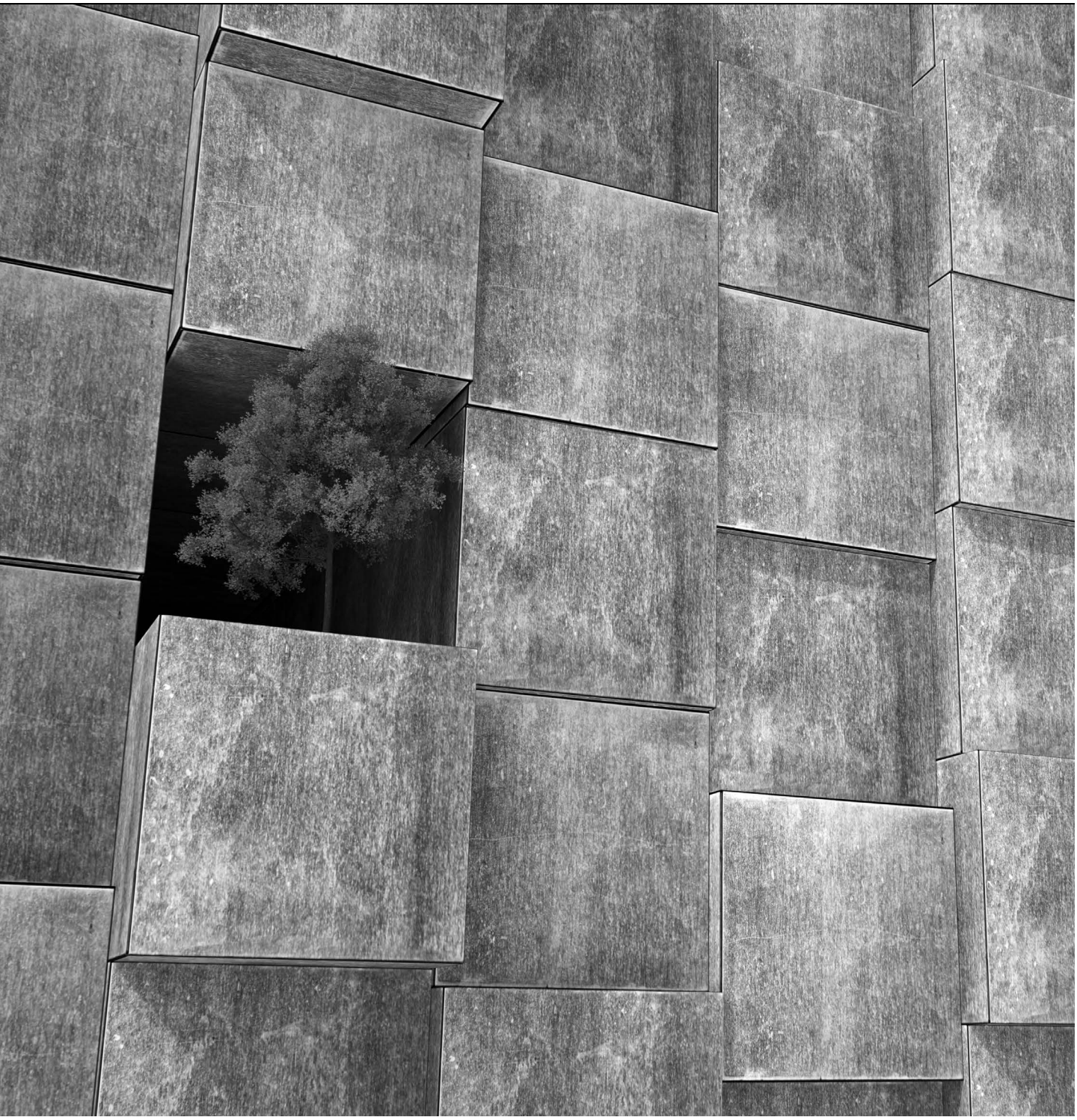

Similarly, forthcoming OECD research has found that organizations that make a concerted effort to survey and consult their workforces experience better outcomes in terms of productivity, and perceptions of working and employment conditions. In relation to AI, workers in companies that consulted workers were nearly 20 percentage points more likely to say that AI had improved their work performance, compared to workers in companies that did not (Broecke, Lane, and Williams, forthcoming). One manager in a US manufacturing company argues that co-creation improves outcomes: "We [bring] all stakeholders together in the early stages of a project to get buy-in. Things go better that way." (Milanez, forthcoming).

AI technologies do, however, present other challenges for employers, raising questions around: data protection and privacy, transparency and explainability, bias and discrimination, and accountability (Salvi del Pero, A., P. Wyckoff, and A. Vourc'h, 2022).

While these issues are not necessarily new, they have been exacerbated by the advances in AI, meaning employers must address them as a matter of urgency, both from an environmental, social, and governance (ESG) perspective and in terms of maintaining market competitiveness.

Take, for instance, concerns about bias and discrimination in AI recruitment tools. While such bias may negatively impact certain groups of workers, it is also a question of lost efficiency. In a highly competitive labor market, organizations cannot afford to use biased AI tools that may filter out highly eligible but non-traditional candidates before the recruitment team even notices they applied.

Get ready for regulation

While employers and workers can make progress in finding solutions to some of these issues through social dialog (Krämer and Cazes, 2022), policymakers across the OECD are grappling with these issues in earnest. Recent developments include the proposed EU AI Act and the forthcoming "bias audits" of AI tools in New York.

In the meantime, the development and use of AI must be guided by non-regulatory and non-binding initiatives such as the OECD's *Artificial Intelligence Principles*, which aim to promote innovative and trustworthy use of AI in a way that respects human rights and democratic values.

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