



# A PLACE FOR HUMAN TALENT IN THE AI AGE

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Artificial intelligence will limit some human roles but could make others more accessible

**A**rtificial intelligence promises to expand and broaden opportunities for humanity—even as it takes over many tasks limited until recently to human ingenuity. But whether AI enlarges or shrinks the space for human talent depends on how widely AI tools are available and how ethically and fairly they are used. The challenge for policymakers is to create the conditions that will allow AI to enhance human potential.

Think of chess. For decades now, machines have been better than humans at the game. IBM's Deep Blue beat World Chess Champion Garry Kasparov back in 1997, and chess-playing engines are much more powerful today. Yet humans haven't given up playing chess. Indeed, many argue that the game is more popular than ever for many reasons, including easy access through smartphones, the internet, and social media and as a result of pandemic lockdowns

and the popularity of the Netflix miniseries "The Queen's Gambit." Moreover, some believe that computers and the internet have taught humans to be better players.

AI can have a similar impact—for better or for worse—on work, education, and even sports and the arts.

## Prized talent

The potential downside of AI for labor markets is well documented. As AI systems increasingly handle complex tasks, the role of human talent is at risk. Human labor may become restricted to a shrinking set of tasks, while previously prized talents—such as the ability to memorize vast amounts of information, speak multiple languages, or recognize intricate patterns—lose relevance as machines outperform humans in these areas.

About 40 percent of global employment, across a wide range of occupations, could be affected by AI, according to IMF research. This estimate is based on the share of tasks within these jobs that AI can already perform, including translation, summarizing information, and coding. These tasks—classified as “cognitive” because they involve problem-solving and communication—were traditionally considered areas in which humans held a clear advantage. This contrasts with routine, repetitive tasks that earlier waves of automation replaced.

For instance, AI tools now assist lawyers with legal research, textual analysis, and drafting documents, which has reduced reliance on paralegals. Similarly, AI-driven translation software has decreased the demand for human translators in business, and AI systems in health care do a better job than humans at detecting cancer early through image analysis and blood screening.

Even within the shrinking range of tasks still performed by humans, AI is redefining what it means to excel. While AI tools improve productivity across the board, the Massachusetts Institute of Technology’s Erik Brynjolfsson, Danielle Li, and Lindsey Raymond (2023) show that the benefits are not evenly distributed—they improve the output of less experienced and lower-performing workers, which significantly narrows the gap between them and top-tier talent. For example, in coding, AI-assisted workers with less expertise can achieve output levels closer to those of skilled developers. This leveling effect could devalue human talent as the distinction between exceptional and average performance recedes. As AI tools advance, they may even outperform human experts in certain domains, leaving less and less room for uniquely human excellence.

## Human creativity

A further implication is the loss of human creativity and sense of ownership. As AI tools increasingly support humans across a broader range of tasks—such as coding, generating content, diagnosing diseases, and composing music—it is natural to rely on them too much. This dependence could have unintended consequences for innovation. For instance, a study by Fabrizio Dell’Acqua and his fellow researchers (2023) compared consultants who used AI tools with those who did not and found that the former group produced less original work. Their output showed higher quality but greater sameness, because the tools guided their efforts toward standardized solutions.

AI not only threatens to sap human innovation, it has the potential to rob innovators of the fruits of their creativity. AI tools are trained through text and data mining of vast amounts of content created

DATA

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by humans. Developers do not always compensate or acknowledge those who are the source of this data. This has led to numerous lawsuits by content creators alleging illegal use of copyrighted material. For example, the *New York Times* sued OpenAI for alleged improper use of its copyrighted archives, and other publishers have recently joined the case. Similarly, Universal Music Group, Warner Music Group, and Sony Music Entertainment have filed lawsuits against AI start-ups Suno and Udio over their music-generating AI systems.

AI firms often argue that the vast amount of data used to train their tools is protected by “fair use,” which allows the use of copyrighted material for education, research, or commentary. But content creators have countered that the scale and scope of AI’s use far exceed traditional fair use practices, which has prompted a call for new laws and regulations to ensure the fair and ethical use of their original work.

## Content creators

In part, this reflects long-standing friction between content creators and technology companies. For example, traditional news media declined with the rise of social media and search engines that poached advertising revenue. Similarly, music streaming platforms have transformed the music industry business model, diverting revenue from album sales and boosting the value of live performances. The emergence of AI tools is a new chapter in this story. Unlike earlier technology disruptions, AI tools can generate new works that mimic artists’ style without their consent or payment. This leaves creators with little control over how their work is used and raises complex questions about ownership and copyright. Such appropriation of human-generated material risks devaluing original works and stifling creativity.

If all AI does is reduce employment and creativity—and undermine excellence—then how does it benefit human talent? There is more to the story. In the workplace, AI can free people from routine duties and allow them to take on more complex tasks that use their high-level skills. AI can foster and unleash human talent through broader access to individualized high-quality education. And AI can help drive scientific discovery, leading to more promising and faster outcomes.

## Learning and working

This is already happening. By breaking down traditional barriers to education, AI tools are giving diverse students access to customized education previously limited by geographic, resource, or systemic constraints. For example, AI-powered plat-



forms help parents of deaf and hard-of-hearing children learn sign language, facilitating communication within families. Moreover, personalized educational tools, such as AI-driven reading and math coaches, help teachers, students, and parents identify learning gaps and tailor instruction to individual learners.

These AI learning tools hold great promise for developing economies with significant shortages of qualified teachers. Online platforms in sub-Saharan Africa have been supporting education for over a decade. Similarly, AI platforms in China are gaining popularity. This shift toward more individualized AI-assisted learning can help students with diverse backgrounds and learning styles excel in school by addressing their academic weaknesses and allowing them to thrive in their areas of strength.

In the workplace, AI can handle repetitive and monotonous tasks and streamline administrative duties so that workers can concentrate on more complex, creative, and rewarding responsibilities that need a human touch. This could benefit workers particularly in occupations that require human interaction and critical decision-making that involves people's lives. For example, in health care, AI-powered systems can assist with scheduling, billing, and patient record management, freeing up health care professionals to spend more time on patient care and complex decision-making.

Scientific discovery is benefiting as well, and AI-assisted tools have significantly enhanced productivity. A striking example of AI's transformative role is its application in protein structure prediction, as recognized by the 2024 Nobel Prize in Chemistry. This groundbreaking work revolutionized our understanding of protein folding, enabling rapid advances in drug discovery and biotechnology. Following the release of AlphaFold2, the number of predicted protein structures available to scientists surged from 200,000 to 200 million within months.

### Managing trade-offs

However, these advances can come with trade-offs. A recent study in the field of new materials by Aidan Toner-Rodgers, a doctoral student at the Massachusetts Institute of Technology, found that AI discovery tools boosted research output by 44 percent. This improvement was driven largely by top researchers who used AI to automate a substantial portion of idea generation. They could then devote their time to evaluating and refining promising AI-generated suggestions—a dynamic similar to that behind AlphaFold's impact. But 82 percent of scientists in the same study reported less job satisfaction because of diminished creativity and neglect of their skills. By enabling workers to

focus on creative and complex tasks, AI can foster greater fulfillment, but overreliance on automation risks making workers feel that their expertise and creativity are undervalued.

AI tools are not just for workplace efficiency and accessible education. The technology also has a demonstrated capacity to help identify potential talent in fields including sports, the arts, and academics. AI tools help scouts identify and assess sports talent by analyzing vast amounts of data so that recruiters can discover players with exceptional potential. The use of more hard data for recruiting decisions may even reduce bias. These AI techniques can make sports more inclusive—for example, by giving opportunities to young players in small towns and underrepresented regions or communities.

In creative arts education, AI tools like DALL-E, AIVA, and Amper Music allow amateurs to experiment with design and artistic concepts, providing accessible feedback and innovative techniques. These tools make arts education—once limited to formal study or costly training—available to everyone.

As AI reshapes the world of work and learning, its impact will not be evenly distributed. For some, it will unlock doors to previously inaccessible opportunities; for others, it may diminish the value of their talent. To maximize its potential, we must strike a balance: using AI ethically and fairly to complement, recognize, and enhance human abilities while addressing the systemic barriers that prevent its benefits from reaching everyone. With deliberate action, AI can help us build a future where talent isn't held back by circumstance but flourishes through collaboration between human ingenuity and technological progress. **F&D**

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