



# HUMAN DEVELOPMENT

REPORT 2025  
OVERVIEW

**A matter of choice:**  
People and possibilities  
in the age of AI

OVERVIEW

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# A matter of choice

People and possibilities in the age of AI



## **A matter of choice: People and possibilities in the age of AI**

Artificial intelligence (AI) has broken into a dizzying gallop. Each day seems to herald some new AI-powered algorithmic wonder. As a general-purpose technology, AI has been dubbed “the new electricity.” Regardless of whether the utopian, technosolutionist<sup>1</sup> visions of AI’s most ardent advocates come to fruition or fizzle as snake oil (or worse), the world is pulsing with a powerful new technology, a new kind of dynamism or vitality, that differs from technologies of the past.

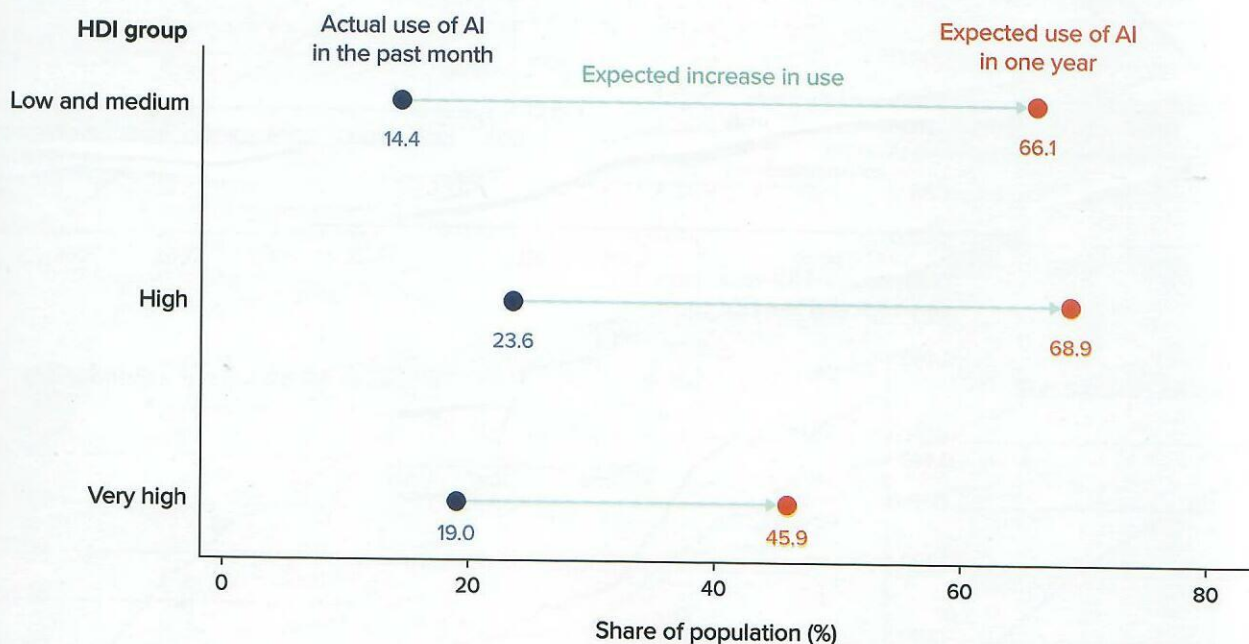
Yet, the AI zeitgeist is awfully blinkered. Headlines fixate on arms races, policymaking on risks. These are real. But they are not—and should not be—the whole story. We need to go beyond races and risks to possibilities for people, possibilities shaped by people’s choices.

The choices that people have and can realize, within ever expanding freedoms, are essential to human development, whose goal is for people to live lives they value and have reason to value. A world with AI is flush with choices the exercise of which is both

a matter of human development and a means to advance it. The future is always up for grabs, even more so now. Trying to predict what will happen is self-defeating, privileging technology in a make-believe vacuum over the frictional realities and messier promises of people’s agency and their choices. From a human development perspective the relevant question instead is what choices can be made so AI works for people.

This year’s Human Development Report examines what distinguishes this new era of AI from previous digital transformations and what those differences could mean for human development (chapter 1), including how AI can enhance or subvert human agency (chapter 2).<sup>2</sup> People are already interacting with AI in different ways at different stages of life, in effect scoping out possibilities good and bad and underscoring how context and choices can make all the difference (chapter 3). Human agency is the price when people buy into AI hype, which can exacerbate

**Figure O.1** About two-thirds of survey respondents in low, medium and high Human Development Index (HDI) countries expect to use artificial intelligence in education, health and work within one year



**Note:** Based on pooled data for 21 countries. For actual use in the past month, the following responses to the question, “In the past 30 days, have you ever interacted with artificial intelligence, such as chatbots, in any of the following ways?” were used to calculate the average use of AI for education, health and work: “education” is based on the response “educational platforms of learning apps,” “health” is based on the response “health care services or applications” and “work” is based on the response “work-related tools or software.” For expected use in one year, the following responses to the question, “Over the next 12 months, how likely are you to use an artificial intelligence tool for the following?” were used to calculate the average use of AI for education, health and work: “education” is based on the response “for education and training,” “health” is based on the response “for medical advice” and “work” is based on the response “for work tasks.” Expected increase in use is the difference between expected use in one year and actual use in the past month.

**Source:** Human Development Report Office based on data from the United Nations Development Programme Survey on AI and Human Development.

exclusion (chapter 4) and harm sustainability.<sup>3</sup> And, of course, who produces AI and for what matter a lot for everyone (chapter 5).

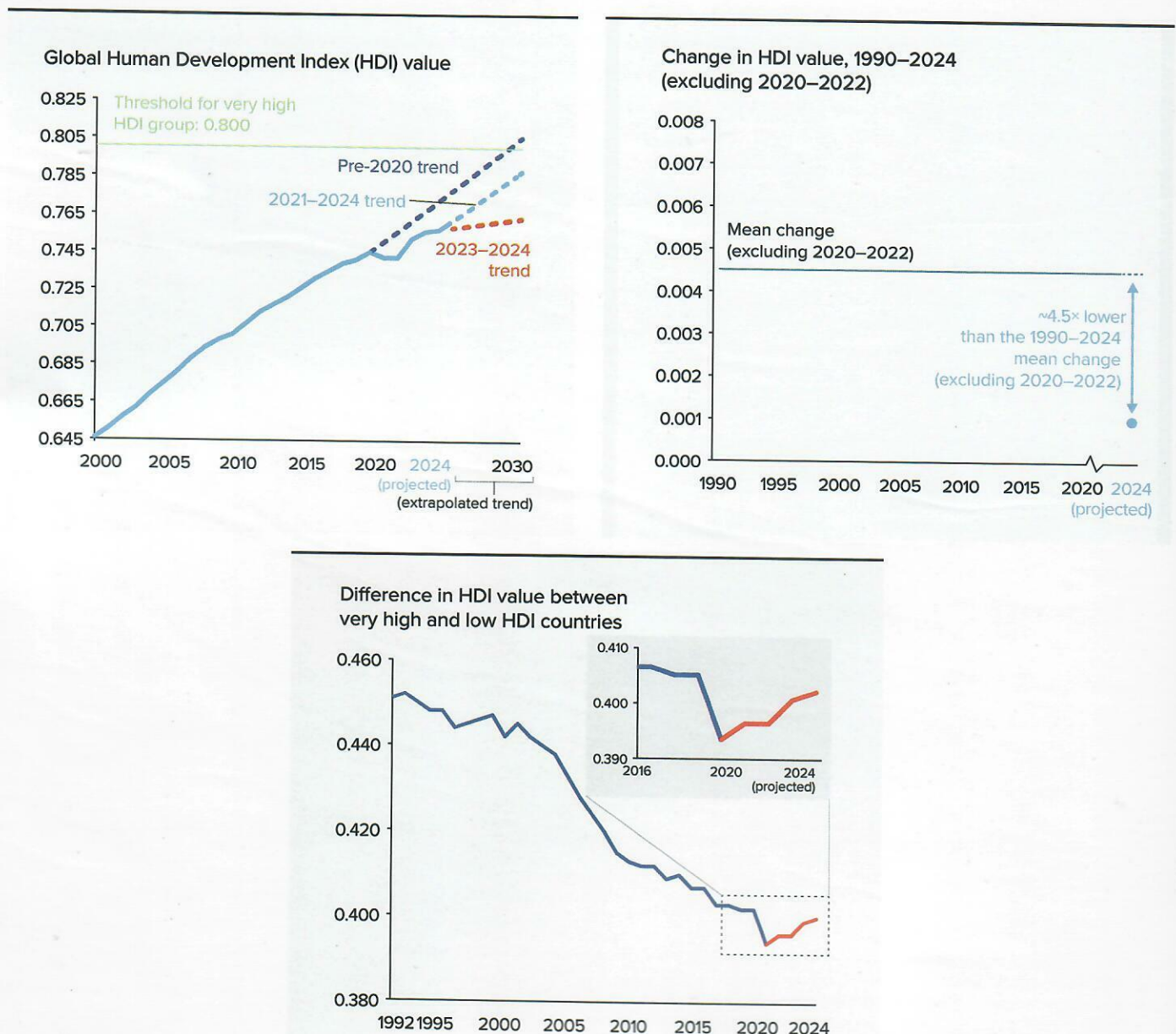
Letting people take the reins makes good sense, because they expect AI to be a growing part of their lives. A global survey<sup>4</sup> for this Report found that, at all levels of the Human Development Index (HDI), AI use is already substantial (for about 20 percent of respondents) and is expected to shoot up fast. About two-thirds of respondents in low, medium and high

HDI countries expect to use AI in education, health and work—the three HDI dimensions—within one year (figure O.1).

## Human development gaps are widening, and global progress may be losing steam

Focusing on people can help many countries feeling caught in a human development pinch between

**Figure O.2** Global progress in human development is losing steam, with the weakest and most vulnerable being left farther behind



Source: Human Development Report Office calculations based on data from Barro and Lee (2018), IMF (2024), UNDESA (2024), UNESCO Institute for Statistics (2024), United Nations Statistics Division (2025) and World Bank (2024).

sky-high expectations for AI and sobering development realities, including ongoing violent conflicts and stresses on human security. Wounds from the 2020–2021 declines in global HDI value have not healed, and the rebound since may be losing steam. Just a few years ago we were on course to live in a very high HDI world by 2030.<sup>5</sup> That world was delayed by a few years based on the 2021–2024 trend. Now it is projected to be delayed by decades (top left panel of figure O.2).<sup>6</sup>

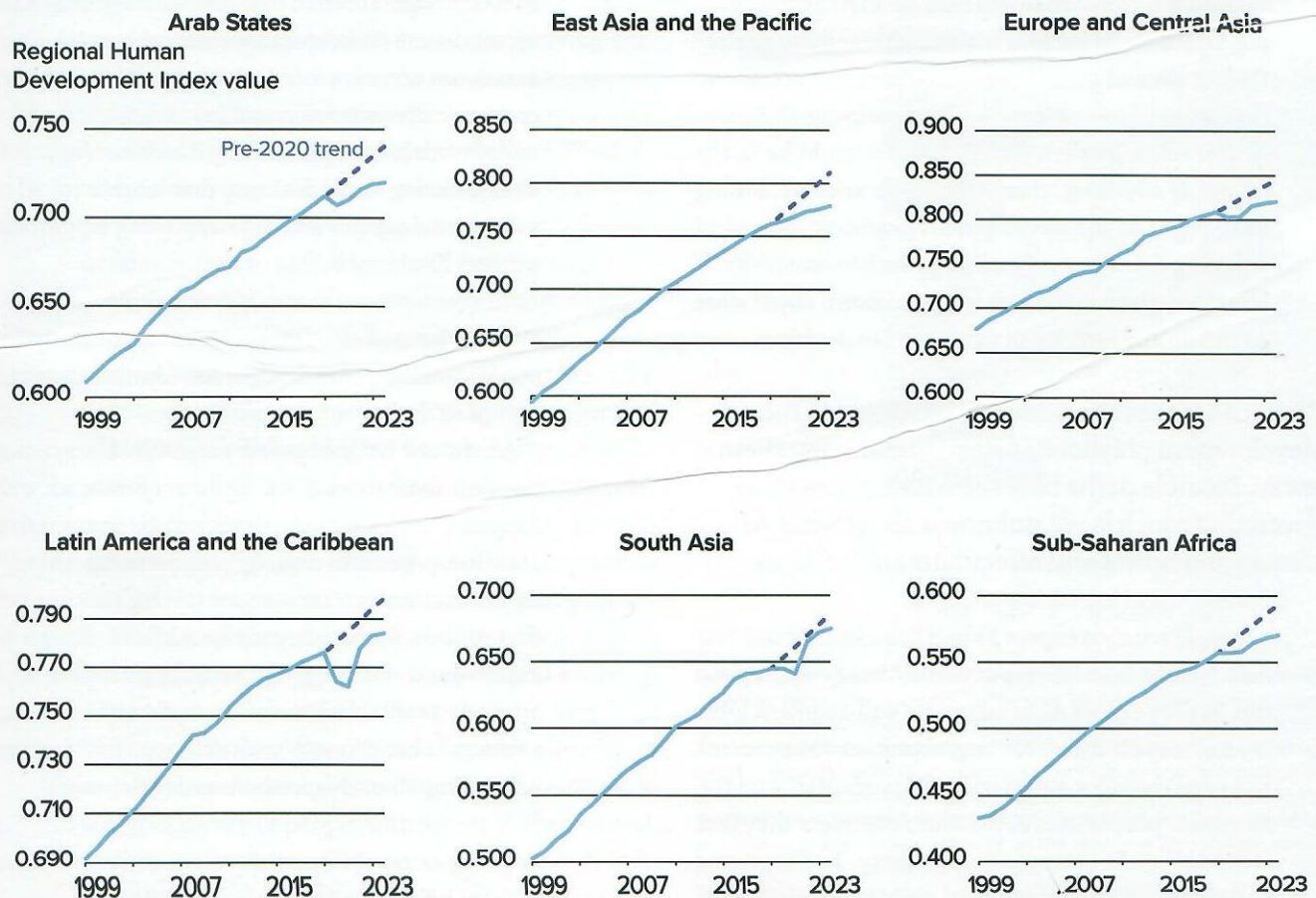
While the global HDI value is projected to reach a record high in 2024, the increase would be the lowest since records began 35 years ago (top right panel of figure O.2). Gaps between very high and low HDI countries, which for decades had been shrinking, have been widening over the past four years (bottom panel of figure O.2). The dramatic slowdown in HDI progress cuts across all developing regions (figure O.3).

Development pathways that have created jobs at scale and reduced poverty, thanks to expanded manufacturing and exports to international markets, are narrowing.<sup>7</sup> A triple squeeze results from inadequate external financing, fewer opportunities in manufacturing due in part to automation and trade tensions limiting export options.<sup>8</sup>

Now enter AI, a development wildcard.<sup>9</sup> If AI is seen simply as a supercharged extension of earlier digital technologies deployed to automate work, labour is condemned to cede the remaining ground to machines, further eroding development options. Is this what is in the cards?

It is a matter of choices. Development depends less on what AI can do—not on how human it appears—and more on mobilizing people’s imaginations to reshape economies and societies to make the most of it.

**Figure O.3** The post-2020 slowdown in human development progress affects every region of the world



Source: Human Development Report Office calculations based on data from Barro and Lee (2018), IMF (2024), UNDESA (2024), UNESCO Institute for Statistics (2024), United Nations Statistics Division (2025) and World Bank (2024).

## Making AI work for people is a matter of choices

AI does some things uniquely well, such as seeing patterns in huge datasets that are difficult or impossible for humans to discern.<sup>10</sup> It does other things poorly, sometimes making things up.<sup>11</sup> It cannot frame problems, as humans can do. Whatever new algorithmic feats are in store, there will always be spaces, however in flux, where humans shine—where humans do things that machines cannot do or are bad at, where societies value people rather than machines doing things and where people and machines go farther and faster together than separately.

Evolving overlaps and complementarities between humans and AI-powered machines land societies at inflection points, after which trajectories will depend largely on two factors: what access societies have to AI and how they view and use it. These are choices, by the few or the many. Is the focus on overlaps, pitting what Daron Acemoglu calls so-so AI against people, which could cut jobs without productivity gains?<sup>12</sup> Or is it instead on complementarities and collaboration to envision new development pathways?<sup>13</sup> Entirely new roles, markets and industries could be in the offing. If anything, then, AI can be seen as adding hazy pages to the development playbook instead of stripping them away. Possible paths become wider, if less clear, given that much is yet unknown about what AI can do and how it will affect human decisions.

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People seem to expect as much: a cloudy glass half full. Nearly 4 in 10 respondents<sup>14</sup> in the survey for this Report expect AI to automate and augment jobs. Overall expectations for augmentation (61 percent) just edge those for automation (51 percent).<sup>15</sup> And the more that people use AI, the more confident they feel in its ability to increase productivity. Expectations in developing countries are particularly high.<sup>16</sup> With so much promise and expectation, the bar for AI is higher than simply being useful or “doing good”; it is avoiding development disappointment.

It is time to break the spell of technological inevitability: no path forward is about technology in isolation but rather how it is deployed—by whom, with whom, for whom—and with what kind of accountability. Different choices can help turn things around, and the lens of this year’s Human Development Report, focused on people and possibilities, identifies three areas of action for AI-augmented human development (chapter 6):

1. *Building a complementarity economy*, so people and AI find more opportunities to collaborate rather than compete.

Rather than try to predict the future, policymakers should shape it, breaking away from trying to guess how humans will be replaced by AI, to see the potential of what humans can do with AI. That includes driving productivity gains through intelligence augmentation, leveraging the complementarities between AI and people. Ensuring that AI is proworker, limiting curbs on agency and empowering workers to use AI to augment what they can do. Deploying AI in sectors where positive spillovers to other sectors and across the economy can be leveraged, helping with economic diversification and job-creating structural transformation. Implementing fiscal measures and strengthening social dialogue that incentivize AI to safeguard decent work and supporting incumbent workers displaced by AI.

2. *Driving innovation with intent*, so opportunity for people is not an afterthought but a built-in integral part of AI design and deployment.

AI should be harnessed to accelerate science through curiosity-driven basic research, as well as technological innovation—not by automating creative processes but by augmenting them.<sup>17</sup> AI innovation can be steered through incentives that embed human agency in AI from design to deployment—by aligning socially desirable and privately profitable innovation and supplementing existing AI benchmarks with new ones that capture AI’s potential to advance human development.

3. *Investing in capabilities that count*, so people have the capabilities to make the most of AI in their lives and to thrive in a world with AI.

AI’s flexibility and adaptability should be leveraged to personalize education and healthcare

in different contexts, while attending to risks and concerns related to bias, privacy, affordability and equity.<sup>18</sup> By tailoring learning or expanding health care, AI can also generate demand for complementary human labour.<sup>19</sup>

Together, the three areas invite policymakers at different levels to shake off unhelpful narratives that swing between utopia and dystopia, to depart from disempowering trends that sideline most people or put bullseyes on their backs and instead to embolden people to reimagine their choices and expand their freedoms.

### Who, where, when and how? AI's possibilities depend on context

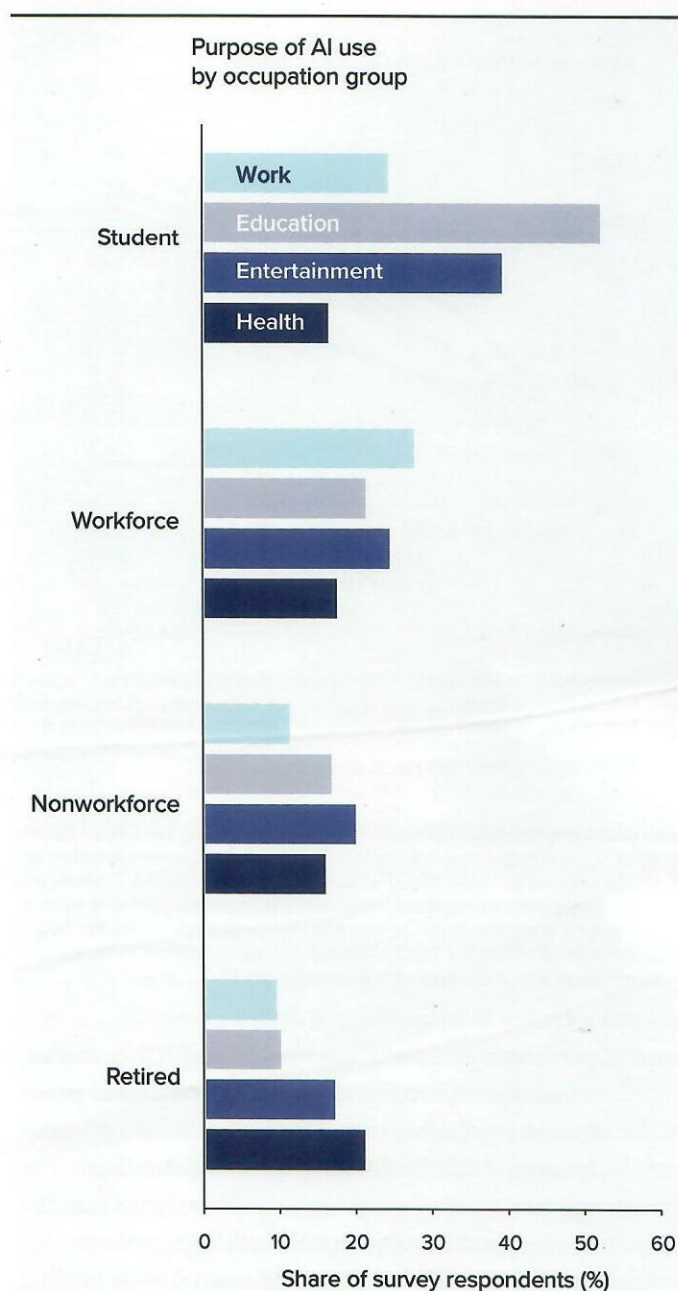
The possibilities of AI depend on context: who, where, when, how? AI is more than just an opportunity for people's choices; it requires them. People of different ages use AI for different purposes (figure O.4). AI has shown promise for helping students by providing study assistance when educators or parents have time or resource constraints<sup>20</sup> or by improving personalized, adaptive learning.<sup>21</sup> AI could bridge gaps in the light of constrained education resources and help level the field for disadvantaged students.<sup>22</sup> This is in addition to—not in lieu of—teachers, who uniquely provide, among other things, necessary social interactions critical to students' overall development.

Until recently, one of the most well-established empirical regularities across countries was that subjective measures of wellbeing (such as life satisfaction) followed a U-shaped pattern with age: younger and older people reported higher wellbeing than those in middle age (late 40s to early 50s).<sup>23</sup> About 10–15 years ago that began to change in some countries. Despair among young people shot up, and life satisfaction tanked.<sup>24</sup> Young women fare worse than young men.<sup>25</sup>

What explains the dramatic declines among young people? The picture is complex and evolving. That the trend is most evident in some very high HDI countries and parallels the broader diffusion of smartphones has implicated digital technologies. In a global survey of people with access to the internet, the typical U-shape curve is completely absent. In its place is essentially a diagonal line, with young people's mental wellbeing at the bottom (figure O.5).<sup>26</sup>

The opportunities for and risks to young people from digital technologies, including AI, are

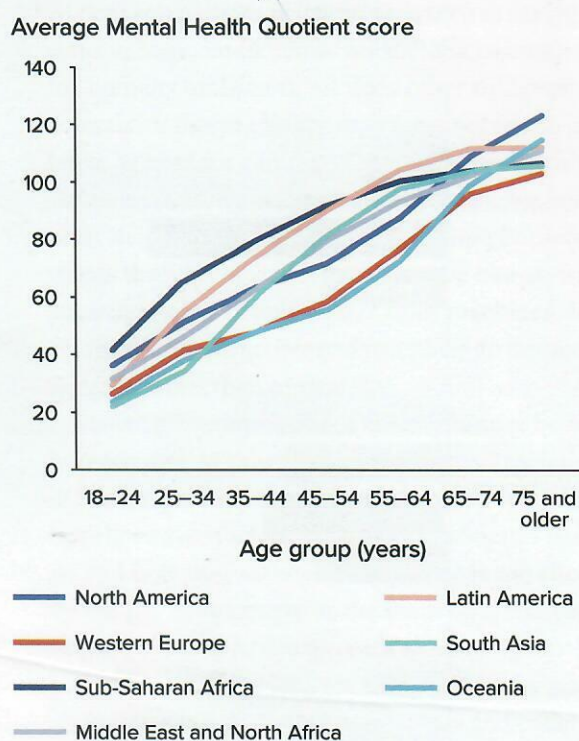
**Figure O.4** People at each life stage use artificial intelligence (AI) for different purposes



**Note:** Based on pooled data for 21 countries. For purpose of AI use, the following responses to the question, "In the past 30 days, have you ever interacted with artificial intelligence, such as chatbots, in any of the following ways?" were used to calculate the average use of AI for work, education, entertainment and health: "work" is based on the response "work-related tools or software," "education" is based on the response "educational platforms of learning apps," "entertainment" is based on the response "entertainment (e.g. streaming services/gaming)" and "health" is based on the response "health care services or applications." For occupation group the following responses to the question "What best describes you? Are you...?" were used: "working" includes self-identified full- and part-time employees and self-employed respondents, and "not working" includes homemakers and unemployed respondents.

**Source:** Human Development Report Office based on data from the United Nations Development Programme Survey on AI and Human Development.

**Figure O.5 Young internet users are struggling—  
everywhere**



**Note:** Data are from the Global Mind Project at Sapiens Lab. The Mental Health Quotient score is a tool that encompasses 47 aspects of mental function assessed on a life impact scale that span the dimensions of Mood & Outlook, the Social Self (or relational aspects), Adaptability & Resilience, Drive & Motivation, Cognition and Mind-Body Connection. The higher the score, the better perceived mental wellbeing. The survey was conducted during 2020–2024. **Source:** Thiagarajan, Newson and Swaminathan 2025.

particularly relevant for many lower HDI countries, where age structures skew young and digital penetration has farther to go. That is itself an opportunity to chart a path informed by lessons elsewhere. The age structures of many higher HDI countries lean the other way, towards the old. Although patterns differ across countries, the world as a whole is greying quickly, with 1.4 billion people age 60 or older expected by 2030.<sup>27</sup> At the same time younger people expect to lose control over their lives due to AI less than older people do (figure O.6).

AI has enabled pathbreaking innovations in assistive and accessible technologies that can expand choices and opportunities for people with disabilities, technologies such as live captioning, image descriptions and translation of sign language into voice or text.<sup>28</sup> But achieving the full reach and potential of these and other applications depends on more

than technology alone. Social choices and contexts matter, too,<sup>29</sup> including, at the most fundamental level, whether these applications are accessible and affordable. Likewise, gender inequalities permeate both the production and consumption of AI. The survey for this Report finds that irrespective of education qualifications, men are more likely than women to use generative AI for work.<sup>30</sup>

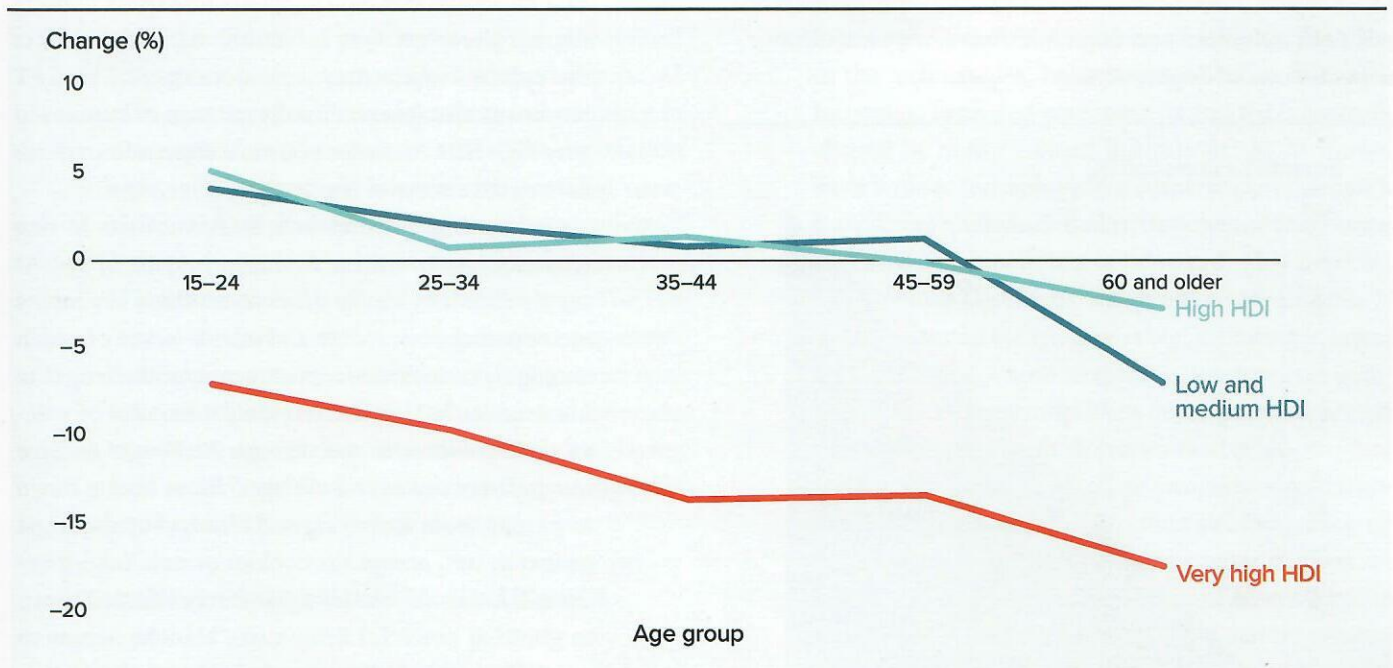
## Building a complementarity economy

Seemingly every day, a new AI model exceeds human scores on a narrowly defined benchmark, often bearing apocalyptic sobriquets such as Humanity’s Last Exam. From this supply-side view humans are framed as one-dimensional benchmarks in a zero-sum competition for finite spots in our future economy—an economy of human replacement. Yet incorporating the demand side reveals how policy choices and strategies can promote a complementarity economy, where AI could augment and extend existing human labour,<sup>31</sup> yield a more inclusive labour market<sup>32</sup> and lead to new industries, jobs and tasks.<sup>33</sup>

AI can automate tasks that have long remained resistant—nonroutine tasks that cannot be accomplished by some industrial machine. Yet rarely do jobs comprise solely what can be readily delegated to machines. Consider radiologists, who were viewed a decade ago as at risk of no longer being needed following the success of AI in interpreting radiological imagery. Today, demand for radiologists remains as high as ever.<sup>34</sup> AI diagnosis is a far cry from deploying medical knowledge in a clinical setting—which, even if it were feasible, patients might reject.<sup>35</sup> A decade on, the story of AI in radiology is one of complementarity—improving diagnostics through AI that augments rather than replaces radiologists.<sup>36</sup>

AI’s capacity for augmenting human abilities can likewise serve as a vital onramp for economic inclusion. For example, AI tends to improve the performance of newly hired call centre workers but has lesser effects for seasoned veterans.<sup>37</sup> Similar results have been documented in writing tasks,<sup>38</sup> software development<sup>39</sup> and management consultancy,<sup>40</sup> among others.<sup>41</sup> Firms are adopting AI for product innovation more than for process automation and seeing higher sales, revenue and employment through better outputs.<sup>42</sup>

**Figure O.6** Younger people expect to lose control over their lives due to artificial intelligence (AI) less than older people do



**Note:** Based on pooled data for 21 countries. Data show, for each age group, the change in perceived agency as measured by the difference in the percentage of respondents who feel they have a high level of control over their lives today and the percentage who expect to feel a high level of control five years from now, as AI becomes more integrated into everyday life.

**Source:** Human Development Report Office based on data from the UNDP Survey on AI and Human Development.

As AI systems are integrated into jobs, working effectively alongside AI—understanding its limitations, interpreting its outputs and applying human judgement—will be critical. New kinds of tasks and related expertise will be needed at the nexus of people and machines. Some envision three new roles: explainer, trainer and sustainer.<sup>43</sup>

Yet AI can disrupt and displace work. Robust social protection systems alongside adaptive skills building aligned with emerging needs can improve employment prospects,<sup>44</sup> while on-the-job training may support those whose jobs and tasks are reshaped by AI.<sup>45</sup> AI systems rely heavily on human labour throughout the supply chain, from development and design to data labelling and annotation.<sup>46</sup> As an AI-enabled economy expands, social dialogue and collective bargaining are key for new meaningful decent work opportunities.

Labour augmentation opportunities, despite their big potential, are not inevitable. The digital divide persists, such that access and relevant skills are limiting factors for using technology more broadly, and these challenges apply equally to AI in the workplace. Starting nearly a generation ago, digital technologies began suffusing high-income countries, whose

workforces today typically enjoy widespread access to digital devices and have extensive experience using them.<sup>47</sup> Elsewhere the persistent digital divide is likely to be a major barrier to realizing the positive effects of AI on jobs and beyond.<sup>48</sup>

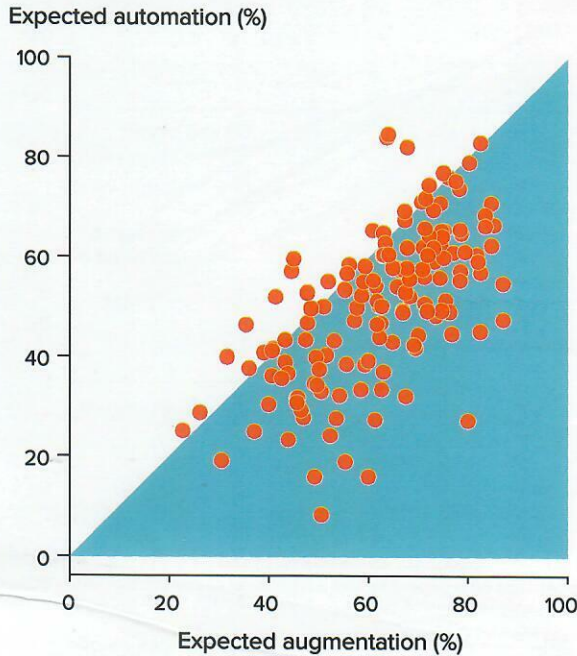
Looking ahead, people expect AI to both automate and augment their work, but they expect the balance to tilt towards augmentation (figure O.7).

Whether the expectations for augmentation will be met depends on policies and incentives to catalyse complementary between people and AI. Getting this wrong will lead to development disappointment in the short term and possibly wider economic divergence in the coming decades. One possibility is averting hasty worker replacement caused by deployment of so-so AI that destroys jobs without generating productivity gains and instead promoting fiscal policies that encourage augmentation.<sup>49</sup>

### Driving innovation with intent

AI can accelerate discovery and innovation and trigger new frontiers of creativity,<sup>50</sup> potentially becoming a method of invention.<sup>51</sup> That is, a new tool to

**Figure O.7** Across occupations and Human Development Index levels, respondents expect that artificial intelligence will both automate and augment their work—with higher expectations of augmentation



**Note:** Based on pooled data for 21 countries. Each dot represents the percentages of respondents in an occupation group in a country who expect automation and augmentation from AI to affect their occupation. The following occupational groups are used: professional/higher administrative, skilled, unskilled/semi-skilled, services, clerical, farm and other. The shaded area represents a higher share of respondents expecting augmentation than automation. **Source:** Human Development Report Office based on data from the United Nations Development Programme Survey on AI and Human Development.

empower people to fulfil the deeply human aspirations to understand and create. Rather than automating tasks in creative processes associated with scientific and technological innovation, the key is augmenting human intelligence<sup>52</sup> by leveraging the complementary capabilities of AI and humans to accelerate innovation<sup>53</sup> and creativity more broadly.<sup>54</sup>

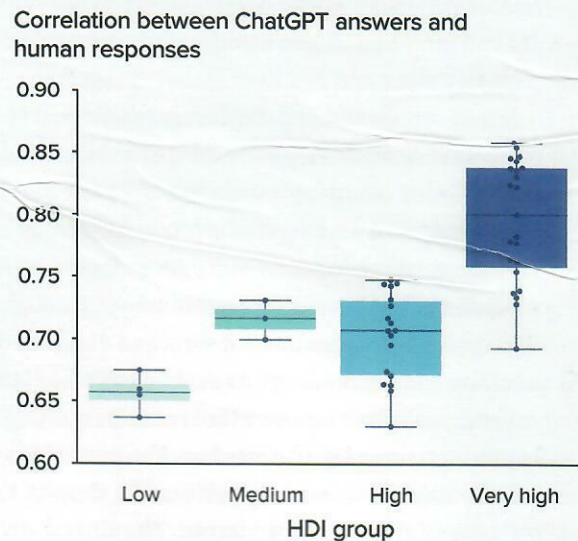
The direction of AI innovation could be steered in ways that align with socially desirable and privately profitable outcomes.<sup>55</sup> AI benchmarks have become fundamental tools for evaluating the performance, capabilities and safety of AI models.<sup>56</sup> Supplementing the current lot with new standards that assess AI's contribution to human development could help steer AI innovation in that direction.<sup>57</sup>

The complex intersection of different country priorities with global and local constellations of tech firms is fuelling a geopolitical innovation race that

risks leaving many countries and people behind.<sup>58</sup> The mismatch between suppliers and users matters for many reasons. One is cultural. AI models reflect the cultures where they were developed. ChatGPT responses are closer culturally to those of humans in very high HDI countries and most distant from those in low HDI countries (figure O.8).

Combatting cultural and linguistic bias is one reason many countries desire to be part of the AI supply chain. AI supply depends on three key inputs—computing power, data and talent—some of which are highly concentrated, posing unique challenges to many lower HDI countries. Only a handful of voices wield power over and through AI. Few of us have much direct say over it. What choices trickle down to us may seem atomizing and binary: buy the latest gadget or not, accept the cookies or not. Take-it-or-leave-it terms of service agreements can boil down to granting powerful firms carte blanche access to our daily lives or to being excluded from digital platforms, where for better or worse ever more of our lives, interactions and relationships take place.

**Figure O.8** ChatGPT answers are culturally closer to those of humans in very high Human Development Index (HDI) countries



**Note:** Higher values on the vertical axis indicate greater cultural and values similarity between ChatGPT and respondents in a given country (indicated by a dot). **Source:** Based on data from Atari and others (2023), who compared results across 65 countries from the World Values Survey.

Narratives that focus on and reinforce only zero-sum thinking crowd out opportunities where cooperation could add a lot of value. At the global level opportunities for international cooperation on AI exist, not necessarily on everything but certainly in some specific and important areas. The rationale is especially compelling in computer-provided oversight, content provenance and model evaluations.<sup>59</sup> Indeed, important work across many international institutions and fora are well under way. The UN Global Digital Compact, which encourages cross-jurisdiction and science-informed dialogue can enable countries to learn from each other and fine-tune regulatory approaches, as well as level the playing field so all countries can meaningfully participate in and benefit from AI's potential.

## Investing in capabilities that count

To prepare young people to thrive with AI, education needs to focus on learning outcomes, as well as critical, creative and relational thinking, moving beyond simply increasing years of schooling. When integrating AI in education, avoid using AI as a crutch, by teachers or students, and treat it as a companion to unleash new ways of learning. This involves deploying AI to scale interventions known to enhance education outcomes, such as customized learning, rather than deploying it for its own sake.

In healthcare AI should be deployed to complement expertise, particularly when it is scarce, as in lower-income countries and settings, empowering healthcare workers to do more in resource- and expertise-constrained contexts.<sup>60</sup> Healthcare systems and organizations should safely and transparently integrate AI technologies—strengthening both institutional and frontline provider capacity to use these systems, while clearly communicating to patients how the systems are employed in clinical decisionmaking to build trust. Because the unintended side effects of AI in health services may change over time, monitoring AI biases and health inequalities needs to be seen as continuous.<sup>61</sup>

## New horizons for human development

Scientific and technological progress propel development.<sup>62</sup> Waves of technological innovation have made

us healthier, wealthier and more knowledgeable, while shifting patterns of economic opportunity and redrawing inequalities.<sup>63</sup> Not because of inherent features of the technologies, but because of active decisions by people, firms and governments and the incentives shaped by newly created institutions. As AI moves from a niche technology to a cornerstone of people's lives across multiple domains, its potential to advance human development has to be seized. That depends on more than algorithms; it depends on our choices.

The potential everywhere is big, including in lower HDI countries, whose narrowing development pathways feel more and more like a development tightrope over a widening chasm. AI can act as a bridge—to other advanced technologies that can facilitate industrial upgrading,<sup>64</sup> to greater diversification and integration up and down global value chains,<sup>65</sup> to better markets for self-employed workers such as freight drivers<sup>66</sup> and to new knowledge, skills and ideas that can help everyone, from farmers<sup>67</sup> to small business owners.<sup>68</sup>

Of course, that depends on access not just to “the new electricity”—AI—but also to the old. Yet tapping AI's potential goes well beyond access, however important it may be. In a world of AI, divides will also spin along another axis: which societies can make the most of a game-changing technology, focusing on how AI complements and augments what people do, and which societies cannot, by either mistaking for it supercharged extensions of earlier computing technologies or deploying it in ways that compete with people.

“The future is in our hands. By building a complementarity economy, driving innovation with intent and investing in capabilities that count, societies can use AI to expand people's choices and possibilities.

The future is in our hands. Technology is about people, not just things. Beneath the razzle-dazzle of invention lurk important choices, by the few or the many, whose consequences will reverberate across generations. By building a complementarity economy, driving innovation with intent and investing in capabilities that count, societies can use AI to expand people's choices and possibilities. In doing so, new development pathways for all countries will dot the horizon, helping everyone have a shot at thriving in a world with AI.