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Printed in the USA, by AGS, an RR Donnelley Company, on Forest Stewardship Council certified and elemental chlorine-free papers. Printed using vegetable-based ink.



#### The 2025 Human Development Report

The cover and chapter images in the report feature portraits in the artistic styles of various historical periods and cultures, with subtle allusions to people's use of technology.

For example, the cover presents a modern woman with headphones, against a background with hints of technology in the style of prehistoric cave paintings—an echo of humanity's earliest attempts to understand and shape the world.

Combining history with symbols of modern technology, the images place humans at the centre and aim to bridge the past and future—positioning today's breakthroughs in artificial intelligence (AI), and the media through which we interact with them, as part of humanity's unfolding and open-ended journey towards advancing human development.

Working with AI, a graphic designer created the images by guiding the system with ideas and creative direction, prompting the AI to produce a range of visual outputs that the graphic designer then edited, developed and finalized. The artworks themselves reflect how AI could reshape how we do things, unleashing new creative possibilities and augmenting what people can do. The cover and other images invite you to pause and reflect—as we navigate the uncertainties and possibilities of a world with AI.



## HUMAN DEVELOPMENT REPORT 2025

**OVERVIEW** 

## A matter of choice

People and possibilities in the age of Al

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## **Foreword**

Artificial intelligence (AI) is racing ahead at lightning speed. Yet as AI surges forward, human development stalls. Decades of progress, reflected in the Human Development Index, have flatlined, with no clear recovery from the blows dealt by the Covid-19 pandemic and subsequent crises. We are at a crossroads: while AI promises to redefine our future, it also risks deepening the divides of a world already off balance. Are we on the verge of an AI-powered renaissance—or sleepwalking into a future ruled by inequality and eroded freedoms?

Too often, headlines, policies and public debates fixate on what Al might achieve in some distant future—utopian or dystopian. These deterministic views are not only disempowering; they are profoundly misleading. They obscure the fact that the future is being shaped now, by the choices we make today. The 2025 Human Development Report, A Matter of Choice: People and Possibilities in the Age of Al, reminds us that it is people—not machines—who determine which technologies thrive, how they are used and whom they serve. Al's impact will be defined not by what it can do but by the decisions we make in its design, development and deployment.

Central to these decisions is how we view the role of people in an Al-driven world. Assuming that Al will inevitably sideline humanity overlooks the very force driving its progress: us. Al's capacity to automate nonroutine tasks has stoked fears of human replacement—but this is only when we reduce people to mere task-performers. This Report challenges that view. It argues that humans, "the true wealth of nations," are far more than the sum of the tasks we perform. Rather than measuring Al by how closely it mimics us, the Report emphasizes how the differences between humans and machines can create powerful complementarities that expand human potential.

This people-centred perspective becomes even more critical in a moment of overlapping global crises. It is tempting to believe that Al alone can solve our development challenges. But that belief invites complacency. It asks us to surrender responsibility and ignore the political, social and systemic barriers that have long impeded progress. The 2023/2024 Human Development Report, *Breaking the Gridlock*, made it clear: our limitations are not technological but sociological. Many of the crises and inequalities we face persist not because solutions are lacking but because we have failed to act. With Al we must choose differently—and we must choose now.

We might resist the temptation to anthropomorphize AI, yet in many ways it acts like a mirror—reflecting and amplifying the values, structures and inequalities of the societies that shape it. AI does not act independently of us; it evolves through our decisions and our priorities. If we fail to address the injustices and divides that persist today, AI will only entrench them further. But if we invest in human capabilities and commit to greater equity, AI can magnify the best of what humanity can achieve. Ultimately, the 2025 Human Development Report on AI is not about technology—it is about people, and our ability to reinvent ourselves in the face of profound change.

**Achim Steiner** 

Administrator

United Nations Development Programme

FOREWORD

## **Acknowledgements**

Every Human Development Report is a voyage of discovery, exploring how the human development approach helps navigate pressing challenges and emerging opportunities. That navigation proved particularly challenging for this Report, given the rapidly changing context of artificial intelligence (AI). AI continues to astonish every day. It engenders a mix of hype and hope, along with fear and trepidation. It is attracting financial investment and human talent towards its continuing evolution, but it is also becoming a source of geopolitical tensions. There was really no roadmap helping us navigate what seemed like a new and constantly moving Al frontier. A technology that is in many ways just one more like many others that preceded it also felt at times different, in its ability to simulate and replicate features that are so distinctively human. Therefore, this is a Report that captures the spirit of a particular moment in time, with much uncertainty about what might follow in terms of both Al as a technology and its ultimate impact on people's lives. Joining in this journey of exploration are the many individuals and organizations recognized here that contributed their expertise, wisdom and expectations, as well as doubts, about what Al might mean for human development.

The **Advisory Board**, always a crucial source of advice and guidance, was particularly relevant this year and is recognized next to the Report team not to implicate them in the findings but to show appreciation for their fundamental contribution to the Report's framing and analysis.

Complementing the advice from the Advisory Board, the **Statistical Advisory Panel** provided guidance on several methodological and data aspects of the Report—particularly those related to calculating its human development metrics. We are grateful to all the panel members:

Ola Awad, Oliver Chinganya, Koen Decancq, Shatakshee Dhongde, Patrick Gerland, Aishath Hassan, Ivo Havinga, Richard Heys, Solomon Hsiang, Doho Latif Kane, Steven Kapsos, Milorad Kovacevic, Jaya Krishnakumar, Christoph Lakner, Steve Macfeely, Silvia Montoya, Anu Peltola, Iñaki Permanyer, Andrew Rzepa, Michaela Saisana, Claudia Sanmartin, Hany Torky and Andrew Zolli.

We are also thankful to colleagues who provided data assistance to the **Statistical Annex**, specifically, Jenny Cresswell, Adolfo Gustavo Imhof, Vladimíra Kantorová, Olivier Labé, Jong-Wha Lee, Stephan Lutter, Alasdair McWilliam, Eric Roland Metreau, Oscar Milafu Onam, Damien Sass, Leo Tornarolii and Yanhong Zhang.

Appreciation is also extended for all the data, written inputs and peer reviews of the Report's draft chapters, including those by PB Anand, Paul Anand, Joel Anderson, Uğur Aytaç, Klaus Bruhn Jensen, Yi Bu, Leonardo Bursztyn, Miriam Carrera Manzano, Maria-Louise Clausen, Nick Couldry, Andrew Crabtree, Fabien Curto Millet, Christiaan De Neubourg, Virginia Doellgast, Kevin Donovan, Pablo Egaña del Sol, Frank Esser, Adam Fejerskov, Rana Gautam, Anne Marie Goetz, David Hammond, Benajmin Handel, Tomasz Hollanek, Jeroen Hopster, Johannes Jaeger, Rafael Jimenez Duran, Julia Karpati, Marie Kolling, Anton Korinek, Seth Lazar, Margauz Luflade, Michael Muthukrishna, Rose Mutiso, Kruakae Pothong, Stiene Praet, Carina Prunkl, Mitsy Barriga Ramos, Christoph Roth, Anna Salomons, Stefka Schmid, Tobia Spampatti, Tara Thiagarajan, Luis Hernán Vargas, Manuela Veloso, Juri Viehoff, Zi Wang, Åsa Wikforss, Kuansong Victor Zhuang and David Zuluaga

We are especially thankful to our close collaborations with our **partners**: Mario

Biggeri, Enrica Chiappero-Martinetti, Flavio Comim, Carlos Alberto Garzon, Ann Mitchell and Kathy Rosenblum at the Human Development & Capability Organization; Stefano Calcina, Valentina Caliri, Giuseppe Diglio, Gerardo Filippo, Marina Kodric, Fabio Marchetti, Bianca Mihalcea, Marco Presenti and Andrea Sironi at Generali; Jon Clifton, Kiki Papachristoforou and Andrew Rzepa at Gallup; Suela Aksoy, Nancy Hey and Ed Morrow at the Lloyd Register Foundation; Antonio Corcoles, Ismael Faro, Zaira Nazario and Kush Varshney at IBM; David G. Blanchflower at Dartmouth College and Alexander Bryson from University College London; Beata Javorcik and Zoe Russo at the European Bank for Reconstruction and Development; Nino Naderashvili and Charlie Zong at South-North Scholars; Juliana Alves Soares, Paul Anthony, Kimberley Blair Bolch, Nicholas Nam and Leslie J Yun at the World Bank: Sabina Alkire at the Oxford Poverty and Human Development Initiative; Stijn Broecke at the Organisation for Economic Co-operation and Development; Lucas Chanel at the World Inequality Lab; Ketan Patel at the Force for Good; Jonathan Richard Schwarz at the UK AI Security Institute/Thomson Reuters; Phillip Howard and Sebastian Valenzuela at the International Panel on the Information Environment; José M. Tavares at the Nova School of Business and Economics; and Hannah Hess at the Climate Impact Lab. Our thanks are also extended to Olimpia Dubini, Olivia Lempa and Richard Steinert at the Nova School of Business and Economics working on the Capstone Project.

Several **consultations and seminars** with thematic and regional experts and numerous informal consultations with many individuals without a formal advisory role were held in the process of preparing this year's Report. We are grateful for input in

these consultations from Siri Aas Rustad. Tayma Abdalhadi, Alexandra Abello Colak, Elena Abrusci, Adedji Adeniran, Fabrizio Andreuzzi, Anatola Araba, Vesa Arponen, Victoria Austin, Gifty Ayoka, Joon Baek, Maha Bahou, Onur Bakiner, Pallavi Bansal, Roxana Barrantes, Gustavo Béliz, Eliot Bendinelli, Cynthia Bennett, Rahul Bhargava, Nidal Bitar, Karl Blanchet, Joshua Blumenstock, Joanna Bryson, Romina Cachia, Hailey Campbel, Maria Paz Canales, Michele Candotti, Michela Carlana, Dante Castillo, Han Sheng Chia, Zhang Chunfei, Paul Anthony Clare, Ranjini CR, Daniella Darlington, Erika Deserranno, Arkan El Seblani, Ethar Eltinay, Alberto Fernández Gibaja, Elenore Fournier-Tombs, Victor Galaz, Helani Galpaya, Daniela Garcia Villamil, Michael Gibson, Gabriel Gomes Couto, Piers Gooding, Andrea Guariso, Anita Gurumurthy, Jinhwa Ha, Jungpil Hahn, Hamza Hameed, Corinne Heckmann, Catherine Holloway, Marie Humeau, Ghislain Irakoze, Natalie Jabangwe, Parminder Jeet Singh, Yu Jianjun, Priscilla Ege Johnson, Seong Hwan Ju, Ma Jun, Zubair Junjunia, Frederike Kaltheuner, Ozge Karadag, Mary Kawar, Harttgen Kenneth, Jungwook Kim, Niki Kim, Taeho Kim, Yoon Ko, Sengmeng Koo, Adithi Kumar, Nagesh Kumar, Protiva Kundu, Cheol Lee, Dong Hoon Lee, Hyun-kynung Lee, Emmanuel Letouze, Nicola Limodio, Björn-Ola Linner, Sonia Livingstone, Yu Lu, Jean Luc Mastaki, Ke Luoma, Luísa Franco Machado, Anu Madgavkar, Izhar Mahjoub, Joan Manda, Jenifer Mankoff, Audrin Mathe, Francesca Mazzi, Lena Menge, Saurabh Mishra, Hélène Molinier, Nusrat Molla, Amal Mowafy, Ava Nadir, Yushi Nagano, Daniel Naoujoks, Fabio Nascimbeni, Alain Ndayishimiye, Megan O'Neill, Toby Ord, Gudrun Østby, Nikolas Ott, Nikhil Pahwa, Yuhun Park, Balaji Parthasarathy, Pratik Patil, Laurel Patterson, Jason Pielemeier, Fillippo Pierozzi, Carina Prinkl, Raphaëlle Rafin, Rebeca Robboy, Yurii Romashko, Ilana Ron Levy, Asma Rouabhia, Satyaki Roy, Tiffany Saade, Dong-Pyoung Sheen, Bahja Ali Shuriye, Rita Singh, Sebastian Smart, Sang Hyo Song, Tong Song, Paul Spiegel, Serge Stinckwich, Jaimee Stuart, Inkyoung Sun, Yash Tadimalla, Zhou Taidong, Toshie Takahashi, Ma Tianyue, Jutta Treviranus, Chi-Chi Undie, Ott Velsberg, Stefaan Verhulst, Anna Walch, Skyler Wang, Zi Wang, Achim Wennmann, Olivia White, Isaac Wiafe, Kellee Wicker, Kebene Wodajo, Wang Xiaolin, Wan Xiaoyan, Yang Xingli, Nobuo Yoshida, Zhou Yu-Ya, Muhammad Zaman, Liang Zheng, Shen Zhou and Enrique Zuleta Puceiro. Further support was also extended by others too numerous to mention here. Consultations are listed at https://hdr.undp.org/towards-hdr-2025.

Contributions, support and assistance from many colleagues across the UN family are gratefully acknowledged: the International Telecommunication Union. including Jin Cui, Fredrik Ericsson, Thierry Geiger, Youlia Lozanova, Jose Luis Cervera-Ferri, Rosie McDonald, Martin Schaaper and Caroline Troein; the International Labour Organization, including Janine Berg, David Bescond, Ekkehard Ernst, Andrea Marinucci, Uma Rani, Olga Streitska-Ilina and Dagmar Walter; the Office of the High Commissioner of Human Rights, including Scott Campell, Isabel Ebert, Peggy Hicks and Nathalie Stadelmann; the United Nations Office for South-South Cooperation, including Zanofer Ismalebbe and Naveeda Nazir; the United Nations Entity for Gender Equality and the Empowerment of Women, including Hélène Molinier and Raphaëlle Rafin; the United Nations Educational, Scientific and Cultural Organization, including Priyadarshani Joshi, laroslava Kharkova, Irakli Khodeli, Karalyn Monteil, Claudia Roda and Prateek Sibal; the United Nations University, including Elenore Fournier-Tombs, Tshilidzi Marwala, Serge Stinckwich and Shen Xiamomeng; the UN Secretary-General's Special Envoy for Digital and Emerging Technologies' Mehdi Snene; and the United Nations Industrial Development Organization Regional Office, including Shraddha Srikant.

Colleagues in at the **United Nations Development Programme (UNDP)** provided advice and input and organized consultations. We are grateful to Tehmina Akhtar, Abdallah Al Dardari, Fabrizio Andreuzzi, Iffat Anjum, Jacob Assa, Estefania Asturizaga, Marcos Athias Neto, Walid Badawi, Rodrigo Barraza, Iram Batool,

Fiona Bayat-Renoux, Yakup Beris, Robert Bernado, Benjamin Bertelsen, Jeremy Boy, Susan Brown, Camilla Bruckner, Michele Candotti, Yu Ping Chan, Gary Chew, Hojin Chung, Enrique Crespo, Pauline Deneufbourg, Rogaya Dhaif, Violante di Canossa, Mirko Ebelshaeuser, Ahunna Eziakonwa, Almudena Fernandez, Kumiko Fukagawa, Arvinn Gadgil, Victor Garrido, Herte Gebretsadik, Raymond Gilpin, Kiri Ginnerup, Carolina Given Sjölander, Carla Gomez, Janil Greenaway, George Gray Molina, El Hadji Fall, Joe Hooper, Caroline Hopper-Box, Alexander Hradecky, Vito Intini, Ghida Ismail, Giulia Jacovella, Zulkarin Jahangir, Anne Juepner, Hurshid Kalandarov, Tomohiro Kawase, Antonin Kenens, Sujin Kim, Sharon Kinsley, Yuna Koh, Adithya Kumar, Alexis Laffittan, Julie Lee, Regina Lio, Jennifer Louie, Linda Maguire, Joan Manda, Michelle Muschett, Debashis Nag, Steliana Nedera, Liwen Ng, Keyzom Ngodup, Shoko Noda, Camila Olate, Robert Opp, Anna Ortubia, Hye-Jin Park, Gayan Peiris, Isabella Rosso, Jelena Ruzicic, Pratyasha Saha, Sebnem Sahin, Turhan Saleh, Philip Schellekens, Anca Stoica, Helin Su Aslan, Hyunjee Sung, Ludmila Tiganu, Riccardo Trobbiani, Ramiz Uddin, Georges Van Montfort, Agi Veres, Kanni Wignaraja, Lesley Wright, Qu Xinyi, Haoliang Xu, Shinobu Yamaguchi, Weijing Ye, Vitali Zakhozhyi and Ivana Zivkovic.

We were fortunate to have the support of talented **interns** and **fact checkers**: Idris-Alaba Aderinto, Natalia Aguilar, Komla Amega, Raiyan Arshad, James Chabin, Andrea Davis, Jessica Karki, Danielle Mallon, Chiara Marcoccia, Nazifa Rafa, Yu-Ya Rong, Laura Sanzarello and Xiqing Zhang.

The Human Development Report Office (HDRO) also extends its sincere gratitude to the governments of Japan, the Republic of Korea and Portugal for their financial contributions. Their ongoing support is very much appreciated and remains essential.

We are grateful for the highly professional work of our editors and layout artists at Communications Development Incorporated—led by Bruce Ross-Larson, with Joe Caponio, Meta de Coquereaumont, Mike Crumplar, Christopher Trott and Elaine Wilson. It was a communal experience learning together, especially with Bruce, about

how regular spoken language (natural language in the computer science jargon) is becoming a new interface to communicate with computational machines, as well as how artificial intelligence can support the preparation of these reports. That experience extended to the collaboration with Therese Severinsen Marques and the team at Studio Mnemonic in preparing the cover and images in the Report. Therese was given a difficult challenge—to come

up with options that centred artificial intelligence on the human and avoid clichés of robots or digital circuits—and she succeeded in creating beautiful images with the help of artificial intelligence that met this brief.

Over several years now the Human Development Report owes a deep debt of gratitude to UNDP Administrator Achim Steiner. This gratitude has accumulated over the years because he has not only scrupulously preserved and protected HDRO's editorial independence but has always been generous with his time and wisdom. He has provided us with guidance and, on more than one occasion, challenged us to be more and more ambitious, so that we could make a difference in advancing human development. We only hope to have been worthy of the trust and confidence that he has deposited in our team.

Pedro Conceição

Director

**Human Development Report Office** 

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# A matter of choice

People and possibilities in the age of Al



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

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 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.

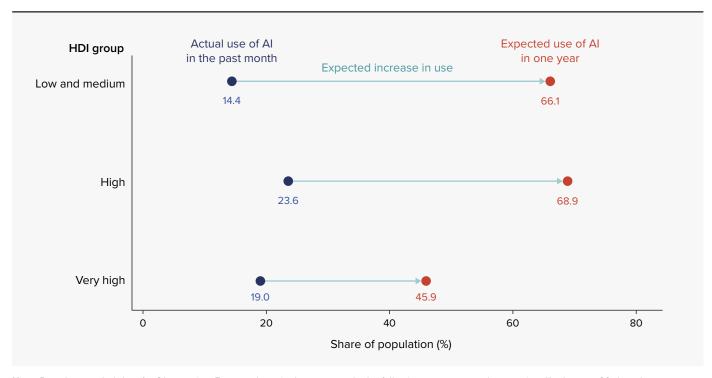
Yet, the AI zeitgeist is awfully blinkered. Headlines fixate on arms races, policymaking on risks. These are real. But they are not—and should not be—the whole story. We need to go beyond races and risks to possibilities for people, possibilities shaped by people's choices.

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 Al 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 Al 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 Al 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).

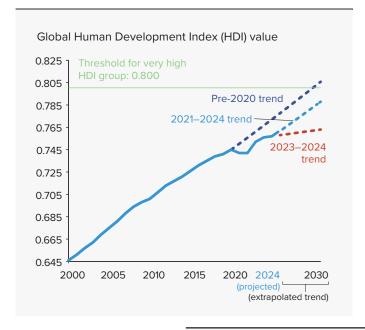
Letting people take the reins makes good sense, because they expect AI to be a growing part of their lives. A global survey<sup>4</sup> for this Report found that, at all levels of the Human Development Index (HDI), AI use is already substantial (for about 20 percent of respondents) and is expected to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

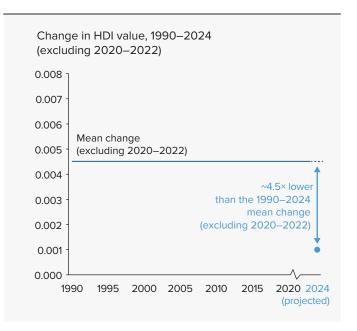
HDI countries expect to use AI in education, health and work—the three HDI dimensions—within one year (figure O.1).

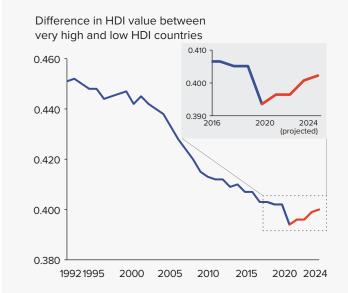
# Human development gaps are widening, and global progress may be losing steam

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>

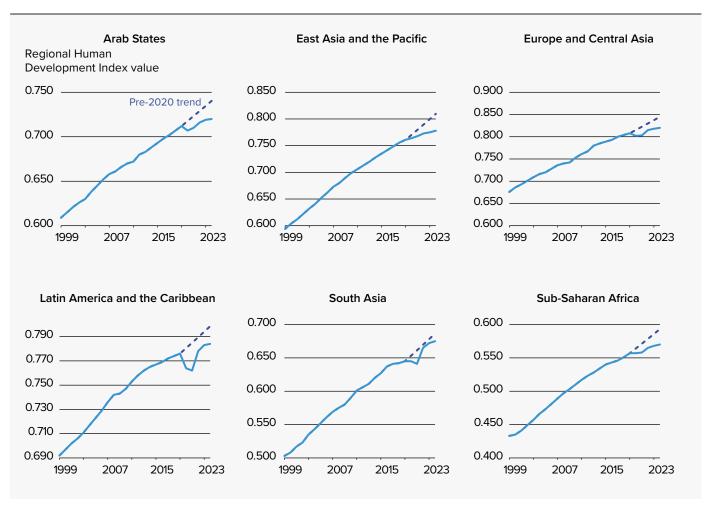
While the global HDI value is projected to reach a record high in 2024, the increase would be the lowest since records began 35 years ago (top right panel of figure O.2). Gaps between very high and low HDI countries, which for decades had been shrinking, have been widening over the past four years (bottom 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 Al 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 Acemoğlu 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?13 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.

44 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

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 bull-seyes on their backs and instead to embolden people to reimagine their choices and expand their freedoms.

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

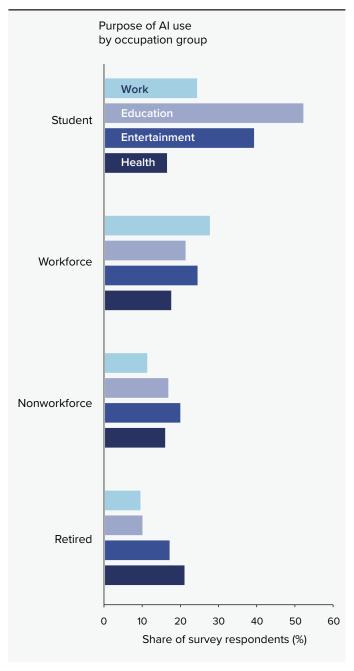
The possibilities of AI depend on context: who, where, when, how? AI is more than just an opportunity for people's choices; it requires them. People of different ages use AI for different purposes (figure O.4). AI has shown promise for helping students by providing study assistance when educators or 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

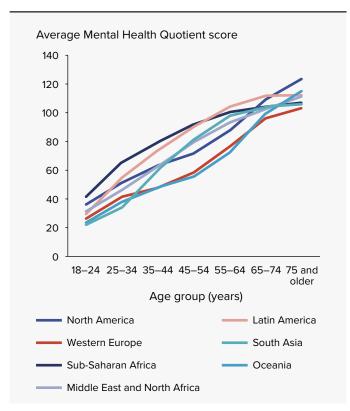
Figure O.4 People at each life stage use artificial intelligence (AI) for different purposes



**Note:** Based on pooled data for 21 countries. For purpose of Al 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 Al 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 Al 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, 31 yield a more inclusive labour market 32 and lead to new industries, jobs and tasks. 33

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>

Change (%) 10 5 15-24 25-34 35-44 45-59 60 and older High HDI -5 I ow and medium HDI -10 -15 Very high HDI -20

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.

Age group

Source: Human Development Report Office based on data from the United Nations Development Programme Survey on Al 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>

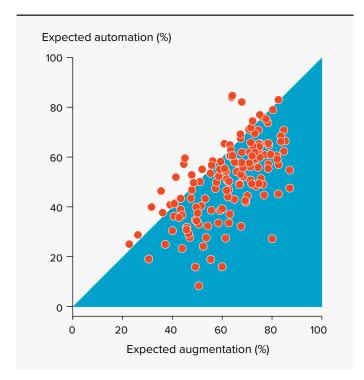
Looking ahead, people expect AI to both automate and augment their work, but they expect the balance to tilt towards augmentation (figure O.7).

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 Al 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 Al and Human Development.

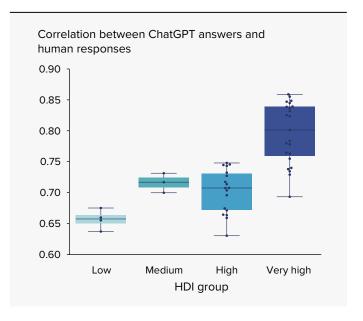
empower people to fulfil the deeply human aspirations to understand and create. Rather than automating tasks in creative processes associated with scientific and technological innovation, the key is augmenting human intelligence<sup>52</sup> by leveraging the complementary capabilities of AI and humans 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 (2025), who compared results across 65 countries from the World Values Survey.

Narratives that focus on and reinforce only zerosum 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 crossjurisdiction 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 strive 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. 60 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. 61

## 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. 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.

### Notes

- 1 The belief that virtually any problem has a technological solution.
- 2 Hoffman and Beato (2025) provide a perspective on the opportunity side of Al if it is designed for human agency.
- 3 Galaz 2025.
- The United Nations Development Programme survey on Al and Human Development is one of the world's largest public opinion surveys on AI in the past three years. From November 2024 to January 2025, more than 21,000 people in 21 countries and 36 languages were surveyed, representing 63 percent of the world's population. These 21 countries were selected to provide results covering different Human Development Index groups and regions of the world. The survey primarily employed randomized telephone polling to ensure broad reach across varied populations (with web polling used in two countries). The 19 questions in the survey capture how AI is influencing daily life, shifting decisionmaking power and redefining public confidence in technology.
- 5 The very high HDI threshold value is 0.800.
- The loss of steam in global progress could indicate a lower trend going forward. Health indicators, particularly life expectancy at birth, are increasing more slowly, with an annual increase of about 0.130 a year for 2023-2024, compared with 0.267 a year for 1990-2019. This slower trend for life expectancy at birth is projected to continue in the coming decades (2025-2050). The world could have attained very high HDI status by 2030 if global HDI values had continued to follow the pre-2020 trend. However, based on the 2021-2024 trend, achieving very high HDI status has been postponed by three years, to 2033. If the 2023-2024 trend persists, the delay may extend to three decades.
- 7 Rodrik and Sandhu 2024; Stiglitz 2021.
- 8 Rodrik and Stiglitz 2024.
- 9 Acemoğlu, Autor and Johnson 2024; Autor 2024: Rodrik and Stiglitz 2024.
- 10 Ludwig and Mullainathan 2024.
- 11 Huang and others 2025; Li and others 2023.
- 12 Acemoğlu and Johnson 2023.
- 13 Autor 2022; Baily, Brynjolfsson and Korinek 2023; Bresnahan 2024; Brynjolfsson 2022b; Korinek 2024; Manyika and Spence 2023.
- 14 This is a simple unweighted average; each country's average response carries equal weight.

- 15 Among respondents who expect AI to change their jobs, the majority expect both augmentation and automation. Among respondents who expect only either augmentation or automation, roughly twice as many expect augmentation as expect automation.
- 16 See, for example, Conboye (2025), who found that close to 60 percent of respondents under age 35 in China, Indonesia and Peru said that Al would make their job better in the next five years, compared with less than 30 percent in Canada, Japan and the Republic of Korea, based on data from the 2024 Ipsos Al Monitor (Carmichael 2024).
- 17 Cui and Yasseri 2024.
- 18 For example, addressing AI biases in health applications requires better algorithms and data, but coding alone will not redress biases (Marwala 2024). This in part because biases require constant attention and monitoring, given that fairness considerations are context specific and dynamic (Mienye, Swart and Obaido 2024).
- 9 Adapa and others 2025; Dangi, Sharma and Vageriya 2025; Zuhair and others 2024.
- 20 Labadze, Grigolia and Machaidze 2023.
- 21 Alzate 2023; Pedro and others 2019; Vincent-Lancrin and Van der Vlies 2020.
- 22 Drolia and others 2022; Government of Mexico 2020.
- 23 Blanchflower 2021.
- 24 Blanchflower, Bryson and Xu 2024.
- 25 Blanchflower 2025.
- 26 Thiagarajan, Newson and Swaminathan 2025
- 27 Thompson 2024.
- 28 Touzet 2023.
  - 29 Consider Google Relate, a free mobile application that can support communication between people with communication disabilities and strangers. Making it work well is contingent on changes in communication norms—through, for instance, greater acceptance of diverse ways of communicating. Automatic speech recognition can alter the dynamic of the conversation—for example, by adding pauses or altering the flow. If the other person in the conversation does not understand or refuses to cooperate, the interaction cannot take place (Ayoka and others 2024).
- 30 Deep gender gaps in the use of generative Al persist even when access to Al is enhanced (Otis and others 2024).

- 31 Brynjolfsson 2022; US National Academies of Sciences. Engineering and Medicine 2024.
- 32 Autor 2024.
- 33 Autor and others 2024; Crafts 2021; Ernst, Merola and Samaan 2019.
- 34 Bastian and others 2024; Higgins and others 2021; Liu and others 2024.
- 35 Hatherley 2020.
- 36 Dvijotham and others 2023.
- 37 Brynjolfsson, Li and Raymond 2025.
- 38 Noy and Zhang 2023.
- 39 Peng and others 2023.
- 40 Dell'Acqua and others 2023.
- 41 Agrawal, Gans and Goldfarb 2023; Kanazawa and others 2022. See also Kanazawa and others (2022). Whether these sector-specific effects extend to the whole economy is unknown as of now.
- 42 Babina and others 2024.
- Wilson, Daugherty and Bianzino 2017. Explainer calls for translational expertise, so that outputs from Al can be evaluated and assessed before being incorporated into decisionmaking. Al hallucinations and human-Al miscommunications are certain to create value for having a human with "skin in the game" somewhere between prompt and implementation. Trainer encompasses new tasks such as prompt engineering and retrieval-augmented generation. Having Al accomplish tasks for humans, making the most out of Al, will require humans writing prompts and customizing models for domainspecific applications—already on ChatGPT there are hundreds of thousands of domainspecific applications created by humans (Korinek and Vipra 2024). Sustainer encompasses tasks associated with keeping up with Al progress and ensuring that both skills and organizational processes make the most of the opportunities as they evolve over time. In the example above radiologists have taken on the tasks of explainer and sustainer, even as AI has augmented the task of diagnosis.
- 44 J-PAL 2023; Lipowski, Salomons and Zierahn-Weilage 2024.
- 45 UN and ILO 2024.
- 46 UN and II O 2024
- 47 For example, Cazzaniga and others (2024) find that higher educated workers in high-income economies are better positioned to harness generative AI for work augmentation and have more access to and an easier time

- transitioning to roles where generative AI is likely to enhance their work.
- 48 Gmyrek, Winkler and Garganta 2024.
- 49 Acemoğlu and Johnson 2023.
- 50 To be clear, the argument is about complementarity between humans and Al in the creative process, not replacing human creativity with machines, which even if it were feasible, would not be desirable from a human development perspective.
- 51 Cockburn, Henderson and Stern 2019; Crafts 2021; US National Academies of Sciences, Engineering and Medicine 2024.
- 52 Binz and others 2025; Delgado-Chaves and others 2025; Luo and others 2024; Musslick and others 2025.
- 53 Along the lines of the complementarity between humans and Al discussed in Felin and

- Holweg (2024). See also Dubova, Galesic and Goldstone (2022).
- 54 Adam 2023; Epstein and others 2023. For example, Al that defeated humans at games such as chess by learning to play the games themselves is now inspiring chess grandmasters with nonhuman moves that make them more creative (Schut and others 2025).
- 55 Acemoğlu 2024.
- 56 Eriksson and others 2025.
- 57 Wang, Hertzmann and Russakovsky 2024.
- 58 Schmid and others 2025.
- 59 Dennis 2024.
- 60 Esmaeilzadeh (2024) report an ongoing cultural shift in healthcare, with Al being increasingly viewed as a delivery enhancer and job creator rather than as a threat.

- 61 Perhaps analogous to the way that pharmaceuticals are deployed and monitored, as suggested in Belenguer (2022).
- 62 Consider the seminal works in economics by, for example, Romer (1994, 1990) and Solow (1956), who show that productivity growth hinges on knowledge and technological change.
- 63 Acemoğlu and Johnson 2023.
- 64 Verhoogen 2023.
- 65 Diouf and others 2024; Mishra and others 2023.
- 66 Wei, Jörg and and Rolf 2024.
- 67 Allen and others 2025; Shahriar and others 2025
- 68 Swartz, Denecke and Scheepers 2023; Walton 2022.

NOTES 13

## **Human development indices**

		Human Development Index (HDI)	Inequality-adj	usted HDI (IHDI)	Gender Devel	opment Index	Gender Inequality Index		Multidir	nensional Pover	ty Index	Planetary pressures- adjusted HDI	
				Overall						Headcount	Intensity of deprivation		Difference from HDI
ш	Locati	Value	Value	loss (%)	Value	Group	Value	Rank	Value	(%)	(%)	Value	value (%)
	l rank ry high human development	2023	2023	2023	2023	2023	2023	2023	2012-2023	2012-2023	2012-2023	2023	2023
	Iceland	0.972	0.923	5.0	0.983	1	0.024	7				0.735	24.4
	Norway	0.970	0.909	6.3	0.995	1	0.024	2		**	**	0.733	25.5
	Switzerland	0.970	0.894	7.8	0.977	1	0.010	4				0.732	24.5
	Denmark	0.962	0.909	5.5	0.990	1	0.003	1				0.792	17.7
	Germany	0.959	0.890	7.2	0.975	1	0.057	21				0.785	18.1
	Sweden	0.959	0.886	7.6	0.988	1	0.007	3				0.810	15.5
	Australia	0.958	0.873	8.9	0.977	1	0.056	20				0.700	26.9
8	Hong Kong, China (SAR)	0.955	0.839	12.1	0.976	1						0.100	
	Netherlands	0.955	0.892	6.6	0.971	2	0.013	5				0.740	22.5
	Belgium	0.951	0.891	6.3	0.979	1	0.031	8				0.666	30.0
	Ireland	0.949	0.886	6.6	1.001	1	0.054	19				0.752	20.8
	Finland	0.948	0.891	6.0	0.992	1	0.021	6				0.748	21.1
	Singapore	0.946	0.823	13.0	0.994	1	0.031	8				0.618	34.7
	United Kingdom	0.946	0.869	8.1	0.979	1	0.083	31				0.827	12.6
	United Arab Emirates	0.940	0.866	7.9	0.957	2	0.040	13				0.585	37.8
	Canada	0.939	0.867	7.7	0.991	1	0.052	18				0.643	31.5
	Liechtenstein	0.938			0.964	2							
	New Zealand	0.938	0.853	9.1	0.973	2	0.082	30				0.731	22.1
17	United States	0.938	0.832	11.3	1.009	1	0.169	45				0.686	26.9
	Korea (Republic of)	0.937	0.857	8.5	0.959	2	0.038	12				0.745	20.5
	Slovenia	0.931	0.885	4.9	0.997	1	0.042	14				0.791	15.0
	Austria	0.930	0.861	7.4	0.985	1	0.033	10				0.757	18.6
	Japan	0.925	0.845	8.6	0.970	2	0.059	22				0.785	15.1
	Malta	0.924	0.843	8.8	0.977	1	0.111	36				0.799	13.5
	Luxembourg	0.922	0.838	9.1	0.996	1	0.044	17				0.479	48.0
	France	0.920	0.836	9.1	0.993	1	0.034	11				0.804	12.6
	Israel	0.919	0.813	11.5	0.994	1	0.080	27				0.709	22.9
	Spain	0.918	0.819	10.8	0.989	1	0.043	15				0.818	10.9
	Czechia	0.915	0.867	5.2	0.987	1	0.088	32				0.764	16.5
	Italy	0.915	0.817	10.7	0.975	1	0.043	15				0.801	12.5
	San Marino	0.915			0.991	1							
	Andorra	0.913	0.837	8.3									
	Cyprus	0.913	0.841	7.9	0.996	1	0.252	64				0.754	17.4
	Greece	0.908	0.825	9.1	0.963	2	0.103	34				0.803	11.6
	Poland	0.906	0.817	9.8	1.012	1	0.081	29				0.792	12.6
	Estonia	0.905	0.841	7.1	1.023	1	0.061	23				0.714	21.1
	Saudi Arabia	0.900			0.931	3	0.228	61				0.666	26.0
	Bahrain	0.899			0.957	2	0.165	44				0.632	29.7
	Lithuania	0.895	0.812	9.3	1.022	1	0.070	24				0.751	16.1
	Portugal	0.890	0.795	10.7	1.000	1	0.076	26				0.797	10.4
	Croatia	0.889	0.828	6.9	0.999	1	0.074	25				0.787	11.5
	Latvia	0.889	0.812	8.7	1.026	2	0.117	38				0.749	15.7
	Qatar	0.886			1.036	2	0.195	52				0.276	68.8
	Slovakia	0.880	0.833	5.3	0.999	1	0.176	48				0.770	12.5
	Chile	0.878	0.723	17.7	0.967	2	0.102	33				0.784	10.7
	Hungary	0.870	0.819	5.9	0.989	1	0.213	54				0.757	13.0
	Argentina	0.865	0.761	12.0	0.988	1	0.264	70	0.001	0.4	34.0	0.763	11.8
	Montenegro	0.862	0.771	10.6	0.984	1	0.121	40	0.005	1.2	39.6	2.700	
	Uruguay	0.862	0.747	13.3	1.017	1	0.218	56	0.003			0.804	6.7
	Oman	0.858	0.750	12.6	0.945	3	0.222	57				0.581	32.3
	Türkiye	0.853	0.708	17.0	0.938	3	0.227	59				0.729	14.5
	Kuwait	0.852	3.100	.1.0	1.011	1	0.188	51				0.531	37.7
	Antigua and Barbuda	0.851			1.031	2	0.100	63					
	Seychelles	0.848	0.755	11.0	1.004	1	0.240		0.003	0.9	34.2		
	Bulgaria	0.845	0.748	11.5	1.000	1	0.208	53	0.003		J-1.L	0.740	12.4
	Romania	0.845	0.758	10.3	0.986	1	0.227	59				0.739	12.5
	Georgia	0.844	0.754	10.7	1.009	1	0.257	66	0.001	0.3	36.6	0.772	8.5
	Saint Kitts and Nevis	0.840	551				3.201		0.001	0.0		J L	0.5
	Panama	0.839	0.664	20.9	1.014	1	0.374	94				0.643	23.4
	Brunei Darussalam	0.837	0.756	9.7	0.993	1	0.257	66				0.600	28.3
00	חו מוופו עם ussaidili	0.031	0.130	7.1	0.773		0.231	00				0.000	20.3

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	Development Index (HDI)	Inoquality-adi	usted HDI (IHDI)	Gender Develo	nnment Index	Gender Inequ	uuality Indov	Multidimensional Poverty Index			Planetary pressures- adjusted HDI	
	illuex (HDI)	illequality-auju	Overall	Gender Devel	opinent index	Gender med	quality illuex	Multidii	Headcount	Intensity of deprivation	aujus	Differenc from HD
	Value	Value	loss (%)	Value	Group	Value	Rank	Value	(%)	(%)	Value	value (%
HDI rank	2023	2023	2023	2023	2023	2023	2023	2012-2023	2012-2023	2012-2023	2023	2023
0 Kazakhstan	0.837	0.766	8.5	1.004	1	0.182	50	0.002	0.5	35.6	0.687	17.9
2 Costa Rica 2 Serbia	0.833 0.833	0.678 0.772	18.6 7.3	0.975 0.987	1	0.217 0.117	55 38	0.002	0.5 0.1	37.1 38.1	0.774 0.724	7.1 13.1
4 Russian Federation	0.832	0.758	8.9	1.023	1	0.169	45	0.000	0.1	J0.1	0.724	14.7
5 Belarus	0.824	0.771	6.4	1.009	1	0.080	27				0.110	17.1
6 Bahamas	0.820	0.670	18.3	1.015	1	0.325	81				0.712	13.2
7 Malaysia	0.819	0.707	13.7	0.973	2	0.172	47				0.677	17.3
8 North Macedonia	0.815	0.723	11.3	0.955	2	0.112	37	0.001	0.4	38.2	0.754	7.5
9 Armenia	0.811	0.743	8.4	1.006	1	0.180	49	0.001	0.2	36.2	0.761	6.2
9 Barbados	0.811	0.620	23.6	1.035	2	0.297	76	0.009	2.5	34.2		
1 Albania	0.810	0.705	13.0	0.963	2	0.107	35	0.003	0.7	39.1	0.755	6.8
2 Trinidad and Tobago	0.807			0.990	1	0.262	69	0.002	0.5	38.8		
3 Mauritius	0.806	0.669	17.0	0.971	2	0.352	87					
4 Bosnia and Herzegovina	0.804	0.689	14.3	0.967	2	0.157	43	0.008	2.2	37.9	0.701	12.8
High human development					_							
5 Iran (Islamic Republic of)	0.799	0.643	19.5	0.875	5	0.482	123	**			0.725	9.3
Saint Vincent and the Grenadines	0.798	0.77	 1F 3	1,000		0.200		0.000		27.0	0.724	
5 Thailand	0.798	0.677	15.2	1.008	1	0.288	73	0.002	0.5	37.0	0.726	9.0
China Peru	0.797 0.794	0.670 0.633	15.9 20.3	0.976 0.959	1 2	0.132 0.340	41 83	0.016 0.025	3.9 6.4	41.4 38.9	0.644 0.757	19.2 4.7
Peru Grenada	0.794			0.959	1	0.340	83 58				0.151	4.7
Azerbaijan	0.791	0.735	6.8	0.984	1	0.226	80				0.737	6.6
Mexico	0.789	0.646	18.1	0.976	1	0.358	88	0.020	5.0	39.8	0.731	8.6
B Colombia	0.788	0.593	24.7	0.992	1	0.393	98	0.020	4.8	40.6	0.740	6.1
Brazil	0.786	0.594	24.4	1.002	1	0.390	96	0.016	3.8	42.5	0.702	10.7
1 Palau	0.786	0.616	21.6	0.992	1							
Moldova (Republic of)	0.785	0.719	8.4	1.029	2	0.146	42	0.004	0.9	37.4	0.738	6.0
Ukraine	0.779	0.715	8.2	1.038	2			0.001	0.2	34.4	0.717	8.0
Ecuador	0.777	0.640	17.6	0.998	1	0.358	88	0.008	2.1	38.0	0.735	5.4
Dominican Republic	0.776	0.634	18.3	1.024	1	0.417	106	0.009	2.3	38.8	0.726	6.4
Guyana .	0.776			0.992	1	0.427	109	0.007	1.8	39.3		
9 Sri Lanka	0.776	0.630	18.8	0.951	2	0.367	93	0.011	2.9	38.3	0.754	2.8
2 Tonga	0.769	0.682	11.3	0.998	1	0.444	115	0.003	0.9	38.1		
3 Maldives	0.766	0.602	21.4	0.986	1	0.309	79	0.003	0.8	34.4		
3 Viet Nam	0.766	0.641	16.3	0.997	1	0.299	78	0.008	1.9	40.3	0.699	8.7
5 Turkmenistan	0.764							0.001	0.2	34.0	0.667	12.7
6 Algeria	0.763	0.601	21.2	0.887	5	0.443	114	0.005	1.4	39.2	0.706	7.5
' Cuba	0.762	**		0.975	1	0.296	75	0.003	0.7	38.1	0.723	5.1
3 Dominica	0.761											
Paraguay Paraguay	0.756	0.599	20.8	0.988	1	0.412	104	0.019	4.5	41.9	0.689	8.9
) Egypt	0.754	0.582	22.8	0.895	5	0.398	101	0.020	5.2	37.6	0.726	3.7
O <b>Jordan</b>	0.754	0.637	15.5	0.861	5	0.433	111	0.002	0.4	35.4	0.714	5.3
2 Lebanon	0.752			0.992	1	0.360	91				0.691	8.1
3 Saint Lucia	0.748	0.523	30.1	1.016	1	0.327	82	0.007	1.9	37.5		
4 Mongolia	0.747	0.647	13.4	1.030	2	0.284	72	0.028	7.3	38.8	0.577	22.8
5 Tunisia	0.746	0.595	20.2	0.931	3	0.238	62	0.003	1.0	35.2	0.703	5.8
6 South Africa	0.741	0.476	35.8	0.996	1	0.388	95	0.025	6.3	39.8	0.685	7.6
Uzbekistan	0.740		211	0.951	2	0.291	74	0.006	1.7	35.3	0.702	5.1
Bolivia (Plurinational State of)	0.733	0.578	21.1	0.961	2	0.419	107	0.038	9.1	41.7	0.675	7.9
B Gabon	0.733	0.558	23.9	0.994	1	0.505	135	0.037	8.6	42.4	0.704	4.0
Marshall Islands	0.733	0.626	14.6	0.960	2	0.400	127	0.072	 17.2	42.2	0.400	
Botswana	0.731	0.509	30.4	0.997	1	0.490	127	0.073	17.2	42.2	0.698	4.5
Fiji Indonesia	0.731 0.728	0.626 0.608	14.4	0.948	3	0.350	85	0.006	1.5	38.1	0.604	
Suriname	0.722		16.5	0.945 0.993	1	0.423	108 97	0.014 0.011	3.6 2.9	38.7 39.4	0.684	6.0
Belize	0.721			0.981	1	0.428	110	0.017	4.3	39.8	0.670	7.1
Libya	0.721			0.955	2	0.428	65	0.017	2.0	37.1	0.629	12.8
Jamaica	0.720	0.590	18.1	1.013	1	0.253	88	0.007	2.8	38.9	0.686	4.7
Kyrgyzstan	0.720	0.649	9.9	0.959	2	0.340	83	0.011	0.4	36.3	0.699	2.9
Philippines	0.720	0.597	17.1	0.984	1	0.351	86	0.016	3.9	40.6	0.680	5.6
) Morocco	0.710	0.517	27.2	0.859	5	0.438	113	0.027	6.4	42.0	0.679	4.4
Venezuela (Bolivarian Republic of)	0.709	0.605	14.7	0.993	1	0.512	137	U.UL1			0.652	8.0
2 Samoa	0.708	0.609	14.0	0.955	2	0.416	105	0.025	6.3	39.1		0.0
3 Nicaragua	0.706	0.535	24.2	0.952	2	0.408	103	0.074	16.5	45.3	0.668	5.4
4 Nauru	0.703	0.599	14.8	0.955	2	0.100					0.000	J. 1
Medium human development	-								*			
5 Bhutan	0.698	0.478	31.5	0.958	2	0.278	71	0.039	9.8	39.4	0.593	15.0
6 Eswatini (Kingdom of)	0.695	0.431	38.0	0.964	2	0.484	124	0.033	7.9	41.3		

Continued  $\rightarrow$ 

		Human Development Index (HDI)				Gender Inco	quality Index	Multidi	nensional Pover	Planetary pressures- adjusted HDI			
		Illuex (IIDI)	inequality auju		Gelider Devel	opinent index	Gender med	quality illuex	multiuli	Headcount	Intensity of		Difference from HDI
		Value	Value	Overall loss (%)	Value	Group	Value	Rank	Value	(%)	deprivation (%)	Value	value (%)
Н	l rank	2023	2023	2023	2023	2023	2023	2023	2012-2023	2012-2023	2012-2023	2023	2023
126	Iraq	0.695	0.534	23.2	0.793	5	0.558	148	0.033	8.6	37.9	0.665	4.3
128	Tajikistan	0.691	0.594	14.0	0.926	3	0.258	68	0.029	7.4	39.0	0.673	2.6
129	Tuvalu	0.689	0.578	16.1	0.969	2			0.008	2.1	38.2		
130	Bangladesh	0.685	0.482	29.6	0.918	4	0.487	125	0.104	24.6	42.2	0.666	2.8
130	India	0.685	0.475	30.7	0.874	5	0.403	102	0.069	16.4	42.0	0.656	4.2
132	El Salvador	0.678	0.555	18.1	0.983	1	0.362	92	0.032	7.9	41.3	0.638	5.9
133	Equatorial Guinea	0.674	0.520	20.2		3			0.002		 2E 0	0.644	4.5
133 135	Palestine, State of Cabo Verde	0.674 0.668	0.538 0.478	20.2 28.4	0.945 0.964	2	0.298	 77	0.002	0.6	35.0	0.653	3.1
136	Namibia	0.665	0.478	34.1	1.011	1	0.448	116	0.185	40.9	45.2	0.611	8.1
137	Guatemala	0.662	0.479	27.6	0.934	3	0.480	121	0.134	28.9	46.2	0.626	5.4
38	Congo	0.649	0.426	34.4	0.924	4	0.565	151	0.112	24.3	46.0	0.631	2.8
39	Honduras	0.645	0.496	23.1	0.964	2	0.437	112	0.051	12.0	42.7	0.620	3.9
40	Kiribati	0.644	0.535	16.9	0.976	1			0.080	19.8	40.5		
141	Sao Tome and Principe	0.637	0.478	25.0	0.980	1	0.492	130	0.048	11.7	40.9		
42	Timor-Leste	0.634	0.451	28.9	0.939	3	0.394	99	0.222	48.3	45.9		
43	Ghana	0.628	0.399	36.5	0.933	3	0.514	138	0.113	24.8	45.5	0.604	3.8
43	Kenya	0.628	0.456	27.4	0.944	3	0.526	143	0.113	25.4	44.7	0.610	2.9
45	Nepal	0.622	0.437	29.7	0.858	5	0.487	125	0.085	20.1	42.5	0.592	4.8
146	Vanuatu	0.621	0.521	16.1	0.952	2	0.556	147					
47	Lao People's Democratic Republic	0.617	0.462	25.1	0.911	4	0.475	117	0.108	23.1	47.0	0.570	7.6
148	Angola	0.616	0.360	41.6	0.906	4	0.515	139	0.282	51.1	55.3	0.604	1.9
149	Micronesia (Federated States of)	0.615			0.953	2							
50	Myanmar	0.609	0.477	21.7	0.947	3	0.478	118	0.176	38.3	45.9	0.593	2.6
151	Cambodia	0.606	0.444	26.7	0.939	3	0.506	136	0.070	16.6	42.3	0.572	5.6
52	Comoros	0.603	0.356	41.0	0.929	3	0.501	132	0.084	19.2	43.9		
53	Zimbabwe	0.598	0.406	32.1	0.944	3	0.519	140	0.110	25.8	42.6	0.585	2.2
54	Zambia	0.595	0.361	39.3	0.949	3	0.524	141	0.232	47.9	48.4	0.585	1.7
55	Cameroon	0.588	0.361	38.6	0.898	5	0.558	148	0.232	43.6	53.2	0.574	2.4
56	Solomon Islands	0.584	0.483	17.3	0.927	3	0.478	118					
57	Côte d'Ivoire	0.582	0.350	39.9	0.910	4	0.589	159	0.210	42.8	49.1	0.537	7.7
57	Uganda	0.582	0.400	31.3	0.908	4	0.524	141	0.281	57.2	49.2	0.569	2.2
159	Rwanda	0.578	0.399	31.0	0.922	4	0.394	99	0.231	48.8	47.3	0.567	1.9
60	Papua New Guinea	0.576	0.423	26.6	0.926	3	0.584	156	0.263	56.6	46.5	0.566	1.7
161	Togo	0.571	0.363	36.4	0.865	5	0.564	150	0.180	37.6	47.8	0.562	1.6
62	Syrian Arab Republic	0.564			0.787	5	0.490	127				0.553	2.0
63	Mauritania	0.563	0.374	33.6	0.886	5	0.603	161	0.327	58.4	56.0	0.542	3.7
64	Nigeria	0.560	0.379	32.3	0.892	5	0.677	171	0.175	33.0	52.9	0.548	2.1
65	Tanzania (United Republic of) Haiti	0.555	0.391	29.5	0.951	2	0.504	134	0.221	47.2	46.9	0.541	2.5
		0.554	0.337	39.2	0.932		0.618	165	0.200	41.3	48.4	0.545	1.6
	Lesotho w human development	0.550	0.357	35.1	1.006	1	0.534	144	0.084	19.6	43.0		
68	Pakistan	0.544	0.364	33.1	0.838	5	0.536	145	0.198	38.3	51.7	0.529	2.8
	Senegal	0.544	0.340	35.8	0.030	4	0.556	127	0.196	50.8	51.7	0.529	3.4
	Gambia	0.524	0.329	37.2	0.959	2	0.578	154	0.198	41.7	47.5	0.512	1.9
	Congo (Democratic Republic of the)	0.522	0.341	34.7	0.886	5	0.604	162	0.331	64.5	51.3	0.517	1.0
	Malawi	0.517	0.365	29.4	0.925	3	0.581	155	0.231	49.9	46.3	0.507	1.9
	Benin	0.515	0.316	38.6	0.866	5	0.573	153	0.290	55.9	51.8	0.504	2.1
	Guinea-Bissau	0.514	0.331	35.6	0.878	5	0.632	166	0.341	64.4	52.9		
	Djibouti	0.513	0.341	33.5	0.814	5	0.481	122			JE.7	0.480	6.4
	Sudan	0.511	0.328	35.8	0.813	5	0.588	158	0.279	52.3	53.4	0.498	2.5
	Liberia	0.510	0.326	36.1	0.865	5	0.646	167	0.259	52.3	49.6	0.505	1.0
	Eritrea	0.503										0.496	1.4
	Guinea	0.500	0.302	39.6	0.828	5	0.609	163	0.373	66.2	56.4	0.488	2.4
	Ethiopia	0.497	0.326	34.4	0.886	5	0.497	131	0.367	68.7	53.3	0.487	2.0
	Afghanistan	0.496	0.321	35.3	0.660	5	0.661	168	0.360	64.9	55.5	0.492	0.8
	Mozambique	0.493	0.297	39.8	0.920	4	0.479	120	0.334	60.7	55.1	0.486	1.4
83	Madagascar	0.487	0.319	34.5	0.934	3	0.584	156	0.386	68.4	56.4	0.481	1.2
84	Yemen	0.470	0.325	30.9	0.407	5	0.838	172	0.188	37.4	50.2	0.465	1.1
85	Sierra Leone	0.467	0.281	39.8	0.830	5	0.566	152	0.293	59.2	49.5	0.459	1.7
86	Burkina Faso	0.459	0.273	40.5	0.881	5	0.555	146	0.343	64.5	53.2	0.453	1.3
87	Burundi	0.439	0.286	34.9	0.932	3	0.501	132	0.409	75.1	54.4	0.435	0.9
88	Mali	0.419	0.281	32.9	0.812	5	0.612	164	0.376	68.3	55.0	0.411	1.9
	Niger	0.419	0.265	36.8	0.855	5	0.591	160	0.601	91.0	66.1	0.410	2.1
	Chad	0.416	0.252	39.4	0.787	5	0.670	169	0.517	84.2	61.4	0.397	4.6
	Central African Republic	0.414	0.253	38.9					0.461	80.4	57.4	0.407	1.7
	Somalia	0.404	0.229	43.3	0.793	5	0.675	170				0.396	2.0
93	South Sudan	0.388	0.226	41.8								0.383	1.3

Continued →

	Human Development Index (HDI)	Inequality-adj	usted HDI (IHDI)	Gender Development Index Gender Inequalit		er Inequality Index		Multidimensional Poverty Index			Planetary pressures- adjusted HDI	
	Value	Value	Overall loss (%)	Value	Group	Value	Rank	Value	Headcount (%)	Intensity of deprivation (%)	Value	Difference from HDI value (%)
HDI rank	2023	2023	2023	2023	2023	2023	2023	2012-2023	2012-2023	2012-2023	2023	2023
Other countries or territories												
Korea (Democratic People's Rep. of)												
Monaco												
Human development groups												
Very high human development	0.914	0.821	10.2	0.989	-	0.125	-				0.741	18.9
High human development	0.777	0.640	17.6	0.971	-	0.334	-				0.677	12.9
Medium human development	0.656	0.457	30.3	0.883	-	0.513	-				0.631	3.8
Low human development	0.515	0.336	34.8	0.836	-	0.571	-				0.505	1.9
Developing countries	0.712	0.539	24.3	0.934	-	0.478	-	0.089	18.3	48.5	0.653	8.3
Regions												
Arab States	0.719	0.544	24.3	0.871	-	0.539	-	0.072	14.7	48.9	0.665	7.5
East Asia and the Pacific	0.775	0.649	16.3	0.973	-	0.315	-	0.021	5.0	42.4	0.658	15.1
Europe and Central Asia	0.818	0.719	12.1	0.970	-	0.226	-	0.004	1.2	37.1	0.731	10.6
Latin America and the Caribbean	0.783	0.619	20.9	0.989	-	0.384	-	0.025	5.8	42.9	0.715	8.7
South Asia	0.672	0.469	30.2	0.872	-	0.458	-	0.094	20.8	45.2	0.644	4.2
Sub-Saharan Africa	0.568	0.377	33.6	0.916	-	0.558	-	0.254	48.4	52.5	0.553	2.6
Least developed countries	0.560	0.374	33.2	0.889	-	0.552	-				0.548	2.1
Small island developing states	0.739	0.567	23.3	0.979	-	0.451	-					
Organisation for Economic Co-operation and Development	0.916	0.812	11.4	0.986	-	0.192	-				0.752	17.9
World	0.756	0.590	22.0	0.955	-	0.455	-				0.680	10.1

#### **Definitions**

Human Development Index (HDI): A composite index measuring average achievement in three basic dimensions of human development—a long and healthy life, knowledge and a decent standard of living. See *Technical note 1* at https://hdr.undp.org/sites/default/files/2025\_HDR/hdr2025\_technical\_notes. pdf for details on how the HDI is calculated.

Inequality-adjusted HDI (IHDI): HDI value adjusted for inequalities in the three basic dimensions of human development. See *Technical note 2* at https://hdr.undp.org/sites/default/files/2025\_HDR/hdr2025\_technical\_notes.pdf for details on how the IHDI is calculated.

**Overall loss:** Percentage difference between the IHDI value and the HDI value, calculated only for countries for which an IHDI value is calculated.

Gender Development Index: Ratio of female to male HDI values. See *Technical note 3* at https://hdr.undp.org/sites/default/ files/2025\_HDR/hdr2025\_technical\_notes.pdf for details on how the Gender Development Index is calculated.

Gender Development Index groups: Countries are divided into five groups by absolute deviation from gender parity in HDI values. Group 1 comprises countries with high equality in HDI achievements between women and men (absolute deviation of less than 2.5 percent), group 2 comprises countries with medium to high equality in HDI achievements between women and men (absolute deviation of 2.5–5 percent), group 3 comprises countries with medium equality in HDI achievements between women and men (absolute deviation of 5–7.5 percent), group 4 comprises countries with medium to low equality in HDI achievements between women and men (absolute deviation of 7.5–10 percent) and group 5 comprises countries with low equality in HDI achievements between women and men (absolute deviation from gender parity of more than 10 percent).

Gender Inequality Index: A composite measure reflecting inequality in achievement between women and men in three dimensions: reproductive health, empowerment and the labour market. See Technical note 4 at https://hdr.undp.org/sites/default/files/2025\_HDR/hdr2025\_technical\_notes.pdf for details on how the Gender Inequality Index is calculated.

Multidimensional Poverty Index: Proportion of the population that is multidimensionally poor adjusted by the intensity of the deprivations. Not all indicators were available for all countries, so caution should be used in cross-country comparisons. When an indicator is missing, weights of available indicators are adjusted to total 100 percent. See Technical note 5 at https://hdx.undp.org/sites/default/files/2025\_HDR/hdr2025\_technical\_notes.pdf for details on how the Multidimensional Poverty Index is calculated.

**Multidimensional poverty headcount:** Percentage of population with a deprivation score of at least 33.3 percent in the survey year.

Intensity of deprivation of multidimensional poverty: Average deprivation score experienced by people in multidimensional poverty.

Planetary pressures—adjusted HDI (PHDI): HDI value adjusted by the level of carbon dioxide emissions and material footprint per capita to account for the excessive human pressure on the planet. It should be seen as an incentive for transformation. See *Technical note* 6 at https://hdr.undp.org/sites/default/files/2025\_HDR/hdr2025\_technical\_notes.pdf for details on how the PHDI is calculated.

**Difference from HDI value:** Percentage difference between the PHDI value and the HDI value.

#### Main data sources

Columns 1 and 4: HDRO 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).

Column 2: Calculated as the geometric mean of the values in the inequality-adjusted life expectancy index, inequality-adjusted education index and inequality-adjusted income index based on data from CEDLAS and World Bank (2024), Eurostat (2024), ICF Macro Demographic and Health Surveys, LIS (2024), UNDESA (2024), UNESCO Institute for Statistics (2024), United Nations Children's Fund (UNICEF) Multiple Indicator Cluster Surveys and UNU-MIDER (2023).

Column 3: Calculated based on data in columns 1 and 2.

Column 5: Calculated based on data in column 4.

Column 6: HDRO calculations based on data from Barro and Lee (2018), ILO (2024), IPU (2024), UNDESA (2024), UNESCO Institute for Statistics (2024), UNICEF Multiple Indicator Cluster Surveys and WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division (2023).

Column 7: Calculated based on data in column 6.

Columns 8–10: HDRO and OPHI calculations based on data on household deprivations in health, education, and standard of living from various years of ICF Macro Demographic and Health Surveys and UNICEF Multiple Indicator Cluster Surveys.

Column 11: HDRO calculations based on data from Barro and Lee (2018), Global Carbon Project (2024), IMF (2024), UNDESA (2024), UNEP (2024), UNESCO Institute for Statistics (2024), United Nations Statistics Division (2025) and World Bank (2024).

Column 12: Calculated based on data in columns 1 and 11.

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