





Reaching YES

Addressing the youth employment and skilling challenge



In March 2020, PwC launched a three-year strategic, global collaboration with UNICEF in support of Generation Unlimited (GenU), which aims to help upskill millions of young people around the world. The collaboration brings together public, private and civil society stakeholders to develop programmes and innovations that support young people on their path to productive futures and engaged citizenship, and to conduct research on the global skills challenge. In addition, PwC and UNICEF, in support of GenU, are collaborating in India and South Africa to develop, expand and fund education and skills programmes for young people.

https://pwc.to/UWY-2020

New world. New skills. is PwC's global programme to help millions of people around the world improve their understanding, skills and knowledge for the digital world.

There is an urgent need for organisations, governments, educators and citizens to come together to address this growing problem. We are convening discussions and working with a broad group of stakeholders to help find solutions that work in each country. We're helping organisations in the public and private sectors anticipate the skills they will need in the future and work together on comprehensive solutions.

We are committing to upskilling as a firm—training our people, investing in technologies and supporting clients, communities and other stakeholders across our territories.

www.pwc.com/upskillin

UNICEF works in the world's toughest places to reach the most disadvantaged children and adolescents—and to protect the rights of every child, everywhere. Across more than 190 countries and territories, we do whatever it takes to help children survive, thrive and fulfill their potential, from early childhood through adolescence.

And we never give up. unicef | for every child

Launched by the UN Secretary-General in 2018, **Generation Unlimited** is a Public-Private-Youth Partnership on a mission to skill and connect the world's 1.8 billion young people ages 10-24 to opportunities for employment, entrepreneurship and social impact. Anchored in UNICEF, the partnership brings together global organizations and leaders including heads of state, CEOs, United Nations leaders, and civil society champions with young people to co-create and deliver innovative solutions on a global scale.

www.generationunlimited.org

Foreword

Reaching YES

Today, the world has 1.3bn young people who are trying to start out, find their way and make a life—just as we did once.

Addressing the youth employment and skilling challenge

But the harsh reality is that millions of these young people will find it hard to make a life for themselves because they will struggle to find work. While the youth population has exploded by 30% in the last 20 years or so, the number in the labour force has actually decreased by approximately 12%. The COVID-19 pandemic has made it even tougher for young people to find a job.

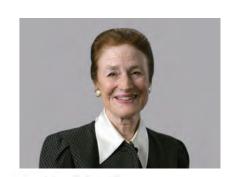
When a young person wants to work but lacks the opportunity to do so, that is a tragedy both for the individual and for society. And one of the reasons that youth in every region struggle to find work is a mismatch between the skills they can offer and the skills employers need.

That's why UNICEF and PwC have partnered with Generation Unlimited to develop a practical road map to help our youth understand what skills employers want, acquire those skills and get the certifications to prove it; we call this 'reaching YES' (youth employment and skilling). This is a big undertaking, but we believe it can be achieved through partnerships among government, business, multilateral organisations and young people themselves.

Helping youth acquire the skills they need to succeed is not just an economic or business imperative; it is a social imperative too. We hope this report will inspire you to join us in helping every young person realise their potential.



Bob Moritz
Chairman of the PwC Network



Feiner & Jone

Henrietta Fore
Executive Director of UNICEF





Kevin FreyCEO of Generation Unlimited

© UNICEF, PwC and Generation Unlimited, 2021



Youth on the precipice

We are at a tipping point: our most vibrant future resource—youth, and particularly young women—are being left behind at an astonishing rate. This is a dire situation that threatens social stability and economic recovery in many parts of the world that most need those things.

While the youth population (ages 15 to 24) grew 30% between 1999 and 2019, their labour force participation rate globally decreased by approximately 12%. Some of this decrease was a result of youth pursuing secondary or tertiary education, but over 20% of this cohort were not in education, employment or training (NEET). In short, many young people—who in total number 1.3bn—are entering the workforce lacking many of the skills they need to thrive in an increasingly digital world that demands an ever-changing array of skill sets.

Two forces are exacerbating the crisis: automation and the COVID-19 pandemic. Jobs historically held by the young are at risk of being automated, at an accelerating pace.³ According to PwC's 24th Annual Global CEO Survey (2021), 83% of CEOs surveyed planned to increase their rate of digital investment either moderately or significantly over the next three years, and 36% aimed to focus on improving productivity through technology and automation, a number more than double the share of CEOs who said the same in 2016.⁴

As if that trend weren't worrisome enough, nearly one-quarter of youth ages 18 to 24 stopped working during the pandemic, while many others had their hours and income slashed, likely because they were working in highly affected sectors.⁵ A growing number of individuals, mostly women, are NEET, largely because of gendered expectations that they will perform unpaid family

work (e.g., providing care for siblings or children, doing household chores) or other informal, unpaid work; while one in seven young men were NEET prior to the pandemic, the rate for young women was one in three.⁶ The number of NEET youth remains high, according to the UN,⁷ as higher levels of youth unemployment from COVID-19 have not been offset by returns to education and training.

Although the constellation of issues keeping voung people out of the workforce is complex. there is no escaping the central role played by lack of skills. The youth skilling challenge is a global issue made worse by global forces, but it is manifested differently according to locationand understanding that is one of the keys to addressing the challenge successfully. Because voung people in the same country have different lived experiences and opportunities depending on socioeconomic status, age, gender and ethnic identity, among other factors, any approach designed to help youth contribute meaningfully and improve their own and their future families' well-being should include a spectrum of stakeholders.

By following the calls to action outlined in this paper, this group of stakeholders can continue the journey many have begun towards addressing the three fundamental goals of the global youth skilling challenge: to identify what skills will be needed, to develop broad-based and flexible programmes for skills acquisition and to provide a way for those in the workforce to verify their training. In other words, by working together, collectively we can reach YES (youth employment and skilling).



Understanding the challenge

While the global youth skilling challenge varies by country, region or locale, three gaps are consistent across all lines: identifying the skills needed for future jobs, acquiring those skills and certifying that an individual has the skills they say they have.

The Skills Identification Gap: What specific skills are needed to build a pipeline of workers suitably trained for the digital future, whether in regular employment, entrepreneurial ventures or the gig economy? Such taxonomies and maps that do exist at the national, industry or

company level are often incompatible or vague and thus difficult to apply across geographies or industries. And there aren't many skills maps for entrepreneurial ventures and small and medium enterprises (SMEs)—a notable challenge when 90% of enterprises in many countries are classified as SMEs and jobs in self-employed, micro- and small enterprises account for 70% of employment worldwide, according to the International Labour Organisation.8



Reaching YES

Addressing the youth employment and skilling challenge

The Skills Acquisition Gap: Many young people's skills don't match the ones they need, especially in populations lacking connectivity, access and education. This gap can be the hardest one to bridge, given the breadth and complexity of multiple demographics within a country, but it is also the most fundamental to getting youth intoor back into—work. To bridge this gap, youth need the basics:

- Connectivity: 63% of the world's youth ages 15 to 24 lack internet access at home that would potentially enable them to access skills development programmes. In Improving wireless or wireline connectivity to areas that have been historically underserved—and using blended approaches of learning including radio, TV and face-to-face learning as connectivity is scaled up—should serve as the foundation for local and national upskilling programmes to support as many youth as possible.
- Access: Beyond technology, young people need cultural acceptance, family support, a steady family income from working adults, native language content and more. National and local regulations, public service campaigns and cultural training can create an environment that encourages youth to acquire skills online.
- Education and training opportunities:
 Foundational education is a core need for skills acquisition; this requires that educators be central to the conversation. They, alongside national and local governments, regulatory bodies, employers and young people, can employ skills maps to determine what skills are needed, what should be taught and how to certify learners who have acquired these skills. By targeting '21st-century skills'—including creativity, communication, critical thinking and problem solving alongside more technical skills needed for jobs in a digital future—countries can more effectively align education with relevant skills.¹¹



YOUTH IN ACTIONAddressing the Skills Acquisition Gap

Farayi, 23, Zimbabwe

- Co-founder of Amigo Solutions
- Winner of the GenU imaGen Ventures Youth Challenge
- Farayi is working to tackle barriers in access
 to skill-building by developing an app to give
 every student in Zimbabwe equal access
 to textbooks, tutorials and other learning
 materials. He is working to bring everything
 educational to one central place and leverage
 technology so that it becomes accessible to
 students no matter how remote they are.
- In Zimbabwe, only 15% of young people go online every day. Young people can only get equal opportunities in education if they can access world-class learning materials at a low cost and in the palm of their hands. The education system does not teach us how to run businesses and how to go about entrepreneurship.'



6 Reaching YES Addressing the youth employment and skilling challenge

The Skills Certification Gap: Beyond interviews, aptitude tests and online portfolios, employers lack a standard way to verify the skills new employees claim to have. To be maximally useful, any such standard must work at the national level, place control in the hands of the user and, ideally, be portable across geographic boundaries. The challenge is greater when prospective employees are youth with limited or no work experience or references. Although micro-credentials and digital badging are a start, a national system built on a technology platform such as a distributed ledger or blockchain could help employees track their skills through formal and informal means and provide employers with a trusted and broadly verifiable assessment method. This system would also potentially enable employers to identify more accurately the most useful skills for their talent pool and set up new hires for success by indicating what additional training may be needed down the road.



Addressing the challenge

The youth skilling challenge is a global issue, but one that must be addressed nationally and locally, for its manifestations and ramifications are unique to each country, industry and locale; even youth within a country will have very different opportunities and experiences based on socioeconomic status, age, gender, ethnic identity and other factors. Because of this, efforts to address youth skilling should be undertaken with an eye towards flexibility and applicability. For those designing, building and disseminating such programmes, a key question is, 'Who are the most vulnerable or marginalised populations, and how can we make these efforts accessible and relevant to them?' Although the answer will vary across nations and locales, one thing will be consistent governments, the private sector, multilateral organisations, educators and youth must all bring to bear on the problem their respective capabilities, knowledge and resources. Ultimately, this effort is about empowering individuals to have greater life chances, and so must reflect and respect their priorities, not be a top-down process.

Here are several near- and medium-term goals for stakeholders to consider in order to help address the three fundamental skills gaps in their locale or industry:





Development of national skills maps will be central to any effort to address the youth skilling challenge and is already being employed successfully in several territories. They are generally most effective at the national and industry level, and would benefit from being based on economic decisions made by governments and the private sector in industries in which the country has or is trying to build a comparative advantage and where there is the potential for inclusive growth. To create a bridge between what employers need and what educators are teaching, the maps should include standardised definitions and methods that track whether or not a skill has been learned. Given the importance of soft skills, it would help if soft skills as well as more technical, job-specific skills are codified. Standards bodies—such as Learning Tools Interoperability, which created a common standard for learning management engines, or the Organisation for Economic Co-operation and Development's (OECD's) Programme for International Student Assessment,12 which gauges basic skills achievement—are potentially useful resources for governments and employers.

A mapping system would ideally include a skills taxonomy, which names and defines common skills and skill categories and ways to measure skills competence; a skills map, which outlines categories of jobs in industries of national importance, including SMEs, and their requisite skills; and a skilling tracker, which helps identify educational and training requirements and outlines how these skills can be acquired, whether within the formal education system or through experiential learning. For consistency and transferability, a national skills map can integrate the work of international bodies such as UNICEF.

UNESCO, the International Labour Organisation, the World Economic Forum and others, which have already developed such taxonomies. Existing education technology infrastructure can be used to create and host these maps via both formal and informal learning channels, using modalities available locally (whether in person, online, written, oral or video). These trackers help youth understand the skills needed for a job and how to acquire them, and can also serve as paths for lifelong learning, to inform and shape educational and training systems and to enable feedback loops between industry and the public sector that will help educators adapt their curricula as new skills become important. As a model, a government could pilot such a track with a national industry growth sector, creating a business case for a broader set of national upskilling tracks across multiple industries.

National governments, specifically ministries of education, labour, skills and youth, can serve as the lead stakeholders in creating these maps, with direct and significant input from national and local companies, particularly SMEs; educational and industry associations; educators; and career guidance professionals.

Examples: Singapore's SkillsFuture programme¹³ provides opportunities for all learners, from students through experienced careerists, to identify the appropriate skills for their chosen profession and also provides access to the resources needed to master those skills. As it is targeted to all Singaporeans, it encourages lifelong learning and skills development. Germany's skills anticipation programme¹⁴ uses 'skills intelligence' to project what the future labour market might look like, providing forwardslooking career guidance to job seekers and insight to educators into what skills youth might need as they prepare to enter the workforce.



Addressing the youth employment and skilling challeng





2. UTILISE CORPORATE TRAINING TO SUPPORT A NATIONAL SKILLS BUILDING ENGINE.

Many corporations, primarily large, global ones, have internal skills development platforms that help current employees acquire new skills. By pairing elements from these corporate programmes, many of which are best in class, with a government-led national policy framework, stakeholders jointly can help establish a national skills development programme that utilises existing high-quality resources, is germane to national and local populations, achieves scale more efficiently and is available at a lower cost than one built from the ground up. Such a platform could ostensibly serve an additional purpose: training individuals before they are hired and possibly improving the overall quality of the candidate pool. This could build in cost savings and efficiency for companies and potentially improve productivity. Ultimately, the platform could incorporate any national skills maps (see #1 above) and become an important complement to skills training provided in schools.

National governments, particularly ministries of labour, youth, technology and skilling, may be best suited to coordinate this effort alongside large national and multinational corporations operating within their borders.

Examples: Some corporations are leading the way in providing corporate training to nonemployees, including Amazon Web Services (AWS) and Microsoft Learn. AWS provides students and military veterans with access to skills training courses for cloud careers and outlines pathways to technology career tracks through its AWS Educate initiative, 15 and its job board connects participants with technology jobs at Amazon and other companies. Microsoft Learn is an online training platform that helps any interested individual achieve proficiency on a series of Microsoft technologies.¹⁶ Yuwaah (Generation Unlimited India) and PwC are developing a 'platform of platforms' which will aggregate existing platforms providing digital upskilling opportunities to help connect youth with options for training, career guidance and, ultimately, jobs.

The partnership aims to transform education, skilling and employment for 300m young people in India by 2030.¹⁷



11 Reaching YES

Addressing the youth employment and skilling challenge



3. BUILD A NATIONAL DIGITAL SKILLS VERIFICATION TRUST.

There is an urgent need for a platform—such as a secure distributed ledger or blockchain-that enables youth to register and store their personal skills development credentials, earned in formal and informal education systems, and to export this record to their potential employers and employment platforms such as LinkedIn. Such a platform would enable learners to create a personal learning and skills record in a way that ensures personal data privacy protection and allows users to choose which information to share with prospective employers, and how and when to do so. This central repository can be connected to a national skills map framework and will enable youth to make optimal use of a national skills building engine.

National governments, in concert with technology companies, can lead the development of such a verification trust. It will be imperative, however, to get input from youth and other users to determine how best to structure the functionality, and from private-sector companies to identify the type of verification they are most likely to require from prospective employees.

Examples: The Digital Credentials Consortium (DCC), created and led by universities with expertise in verifiable digital credentials design, aims 'to create a trusted, distributed, and shared infrastructure that becomes the standard for issuing, storing, displaying, and verifying digital academic credentials.' Although this specific programme is a platform to verify tertiary academic credentials, the DCC's founders acknowledge that it's best seen as part of a more complete system that ties together postsecondary and lifelong learning and records all the individual's skills credentials throughout



15-24 LACK INTERNET ACCESS AT

HOME THAT WOULD POTENTIALLY

ENABLE THEM TO ACCESS SKILLS

DEVELOPMENT PROGRAMMES.

GENERATION UNLIMITED, GIGA. "HOW MANY CHILDREN AND

YOUNG PEOPLE HAVE INTERNET ACCESS AT HOME?" PG. 2

their lifetime. The Youth Agency Marketplace (Yoma) is a digital ecosystem platform developed by Generation Unlimited and partners (UNICEF, GIZ and Botnar) where youth can engage in social impact initiatives linked to skilling and economic opportunities. The initiatives align with the UN's Sustainable Development Goals, creating a youth marketplace for skills, digital profiles, employment and entrepreneurship. Public and private partner organisations use the site to interact with youth, supporting them and providing them with opportunities. A verifiable digital CV is registered with certified credentials using blockchain technology, and users are encouraged with rewards and incentives.







4. DEVELOP A REGIONAL AND/OR NATIONAL SKILLS FORUM TO IMPROVE INFORMATION SHARING AMONG ALL KEY STAKEHOLDERS.

For those countries or regions that don't already have such a body, an information-sharing forum built around skills development provides a virtual venue for employers, educators, government officials, professional associations, and youth to collaborate continuously in order to address trends in the job market and to identify skills gaps, skilling programmes needed and skills youth need to thrive. Through it, multinationals working on national skills maps, skills tracking platforms and skilling can connect with youth, ministries of education and other stakeholders. The platform allows for open dialogue and a feedback loop among those responsible for training and hiring and those pursuing skills, and enables skills providers and developers to adapt their goals and expectations collaboratively.

Professional associations are well placed to take the lead in coordinating national or regional groups, bringing together government stakeholders, the private sector, community groups and youth to share this information. **Example:** Bangladesh's National Intelligence for Skills, Education, Employment & Entrepreneurship (NISE³) gathers government stakeholders, skills service providers, industry associations, industry leaders and others to facilitate information and data sharing around skill development.²⁰ It's here that key stakeholders can share information and best practices and acquire data related to upskilling and reskilling, and skills providers can align with industries. The platform facilitates job searching by providing, among other things, access to career counseling and guidance and information on entrepreneurship, training and apprenticeship opportunities.

THE YOUTH SKILLING CHALLENGE

IS A GLOBAL ISSUE [THAT] IS

MANIFESTED DIFFERENTLY

ACCORDING TO LOCATION-AND

UNDERSTANDING THAT IS ONE OF

THE KEYS TO ADDRESSING THE

CHALLENGE SUCCESSFULLY.



The calls to action in this paper are designed to build on the conversations and activity already underway to drive this issue to the top of government and business agendas with, and on behalf of, youth around the world. It is incumbent on all stakeholders to continue the process. The following suggestions draw on existing best practices and are intended to support government leaders, business leaders and youth as they step up action today.



Government leaders:

Identifying and convening business leaders operating in national economic priority sectors can help clarify the pipeline of jobs that will support the sectors' development, and the skills that individuals will need to be successful in these jobs.



Business leaders:

Convening sector peers to identify, map and communicate the skills most needed now and in the future can help create ownership and buy-in from the business community to address this challenge. Bringing together chief talent officers, chief learning officers and chief human resources officers can help identify the components of corporate training vehicles that can be made available, individually and in aggregate, to youth and educators at the local, national and global levels.



Youth:

Youth working alongside community leaders, business leaders and government leaders—via letters, phone calls and social media—can help bring a vital perspective to the skilling conversation on what youth need to get appropriately skilled, where the gaps are and what tools and resources would be of most value to them.

The challenge before us is daunting and complex; almost two years into the global pandemic, it has also become increasingly urgent. Businesses, governments and transnational organisations must take action if they are to keep youth employed—a key component to unlocking the potential of a 21st-century digital economy. Even more important, this is a moral responsibility the current generation has toward succeeding ones to empower them to fulfil the promise of a better life.



YOUTH IN ACTION

Addressing the Skills Acquisition Cap

Andrea. 25. Mexico

15 Reaching YES

- Co-Founder of Femme & STEM
- Winner of the GenU imaGen Ventures Youth Challenge
- Andrea is working to tackle gender inequities in STEM skills and education through a personalised online education platform that teaches STEM subjects in a user-friendly way, specifically targeting girls and young women, given the negative stereotypes that so far have led to only 8% of young women choosing a STEM-related career in Mexico.
- While I was a young girl, I fell into the trap of believing that STEM and ICT were fields meant for men. If I had the right education and skills, I would have taken this career path right away. I wish to empower young women to believe more in themselves and get certified in STEM skills for stability and access to jobs of the future.



16 Reaching YES

Addressing the youth employment and skilling challenge

Endnotes

- 'Between 1999 and 2019, despite the global youth population increasing from 1 billion to 1.3 billion, the total number of young people engaged in the labour force (those who are either employed or unemployed) decreased from 568 million to 497 million.' International Labour Organisation, 2020, 'Global Employment Trends for Youth 2020—Technology and the Future of Jobs,' pp. 13, 25, https://www. ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_737648.pdf
- Ibid., pp. 13, 22-23, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_737648.pdf
- Ibid., pp. 54, 64, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/ publication/wcms_737648.pdf
- PwC, 2021, 'PwC 24th Annual Global CEO Survey,' https://www.pwc.com/gx/en/ceo-agenda/ ceosurvey/2021/report.html
- International Labour Organisation, 2020, 'Youth and Covid-19: Impacts on jobs, education, rights and mental well-being,' pp. 13–16, https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/ publication/wcms_753026.pdf
- United Nations, 'Reimagining Youth Skills Post-Pandemic,' https://www.un.org/en/observances/worldyouth-skills-day
- 7. Ibid.
- 8. International Labour Organisation, 2019, The Power of Small: Unlocking the Potential of SMEs, https://www.ilo.org/infostories/en-GB/Stories/Employment/SMEs#power-of-small
- 9. For additional information on bridging the digital divide, or any of these points, please reference 'Stepping Forward: Connecting today's youth to the digital future.'
- Generation Unlimited, GIGA, 2020. 'How many children and young people have internet access at home?' p. 2, https://data.unicef.org/resources/children-and-young-people-internet-access-at-homeduring-covid19/
- 11. Organisation for Economic Co-operation and Development, 2020, "What Students Learn Matters: Towards a 21st Century Curriculum," https://doi.org/10.1787/d86d4d9a-en
- 12. Organisation for Economic Co-operation and Development, Programme for International Student Assessment, https://www.oecd.org/pisa/
- 13. Singapore SkillsFuture program, https://www.skillsfuture.gov.sg/
- Skills anticipation program in Germany, European Union, https://skillspanorama.cedefop.europa.eu/en/ analytical_highlights/skills-anticipation-germany#_aims
- 15. AWS Educate, https://aws.amazon.com/education/awseducate/
- 16. Microsoft Learn, https://docs.microsoft.com/en-us/learn/
- 17. Generation Unlimited, 'PwC, UNICEF, YuWaah to upskill 300 million youth in India,' https://www.generationunlimited.org/stories/pwc-unicef-yuwaah-upskill-300-million-youth-india
- Digital Credentials Consortium, https://digitalcredentials.mit.edu/wp-content/uploads/2020/02/white-paper-building-digital-credential-infrastructure-future.pdf
- 19. Youth Agency Marketplace (Yoma), https://www.yoma.africa/
- 20. Bangladesh National Intelligence for Skills, Education, Employment, and Entrepreneurship (NISE⁵), http://skills.gov.bd/. English language resources can be found here: http://skills.gov.bd/resources

17 Reaching YES Addressing the youth employment and skilling challenge

Authors and contributors



Mihnea Moldoveanu, Lead author is the Desautels Professor of Integrative Thinking and Professor of Economic Analysis at the Rotman School of Management, University of Toronto, and Director of the Desautels Centre for Integrative Thinking. He is a serial high technology entrepreneur, including being Founder and past CEO of Redline Communications, Inc.



Urmila Sarkar is a senior adviser and team lead for programmes, planning and youth at the Generation Unlimited Executive Team.



Sena Lee is an education specialist at the Generation Unlimited Executive Team.



Hana Sahatqija is a youth engagement specialist at the Generation Unlimited Executive Team.



Ingrid Carlson is a member of the global strategy and leadership team at PwC.



Bethan Grillo is a member of the global corporate sustainability team at PwC.



Dave Faggard is a member of the global corporate affairs and communications team at PwC.



Barry Ross is a consultant to the 'New world. New skills.' programme at PwC.

Acknowledgments

The authors would like to thank the following individuals for their help with this report:

Nadi Albino (Generation Unlimited)
Bassem Nasir (UNICEF)
James Song (PwC)





Published December 2021

pwc.com/reaching-yes

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 156 countries with over 295,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com.

PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.