~ Concept Note ~

Youth & Industry 4.0:
Implications of the Fourth Industrial Revolution on the Future of Work and Education

Side event organized on the sidelines of the ECOSOC Youth Forum

9 April 2019, 3-5pm
Conference Room 8, UN Headquarters New York

Context

The United Nations Industrial Development Organization (UNIDO) and International Telecommunication Union (ITU) will jointly hold a side event that focuses on the future of work and education within the context of the Fourth Industrial Revolution (4IR). This is in adherence to the ECOSOC Youth Forum 2019’s objective of providing a platform for discussion on innovative solutions to issues of relevance to young people on the implementation of the 2030 Agenda for Sustainable Development.

Industry and industrial processes have evolved over time, with major technological advancements revolutionizing industrial production structures. The Fourth Industrial Revolution takes the automation of manufacturing processes to an unprecedented level, with the introduction of smart, autonomous systems that are capable of self-cognition, self-optimization and self-customization. Industry 4.0\(^1\), which is a major driver of the Fourth Industrial Revolution, is being gradually implemented in advanced economies, often with digitalization as the first important step. Digital technologies will allow for new business models, value-producing opportunities and integration of production structure and IT infrastructure.

While these processes present numerous opportunities for producers and manufacturers, it creates a heightened level of uncertainty for policymakers and development practitioners. This is partly due to the new challenges that will arise, especially in terms of employment, educational systems and industrial policies. Experts are split on these issues, with many predicting major disruptions to the traditional work structure and the obsolescence of educational systems. Others are convinced that the Fourth Industrial Revolution will create more jobs and will not necessarily lead to global unemployment and education crises. For example, a recent UBS survey\(^2\) noted that despite the proliferation of robots in factories today, global unemployment actually level fell to 5.2% in 2018 - the lowest level in 38 years.

Finding solutions to these specific challenges and exploiting opportunities is of utmost importance for the youth and therefore, there is a need for continuous discourse among the wide range of stakeholders – including innovators and policymakers. There is also a palpable need for new strategic approaches that encourage and facilitate the adoption of frontier technologies and foster the new industrial revolution, without harming the environment or increasing inequality.

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\(^1\) (UNIDO, 2017). Industry 4.0. [online] Available at: https://www.unido.org/sites/default/files/2017-01/Unido_industry-4_NEW_0.pdf

\(^2\) (FT, 2018). Global unemployment hits lowest point for 4 decades. [online] Available at: https://www.ft.com/content/1e8f4cf4-f257-11e8-a555-df4bf40f9d0d
Objective

Ultimately, the aim of this session will be to explore the potential impact of Industry 4.0 and digital technologies on developing countries and youth participation in the future job market, given the changing dynamics. The transformative potential of digital technologies is clear and must therefore be properly understood and utilized to take advantage of opportunities, while mitigating the challenges, specifically for the youth. Bearing in mind that outcomes from the ECOSOC Youth Forum will be considered as an informal contribution to the High-Level Political Forum, it is also important to incorporate the theme – “Empowering people and ensuring inclusiveness and equality” into the session. The focus of the session will also be consistent with two of the Sustainable Development Goals that will be reviewed at this year’s HLPF, namely, SDG 8 (Decent Work and Economic Growth) and 10 (Reduced Inequalities).

The panel will look specifically at the future of work in the age of automation and how it will affect the prospects of young people – both socially and economically. In relation to this, one must look at education, not only as an integral part of mitigating the negative impacts of the 4IR, but also as a powerful tool for accelerating the adoption of new technologies. Panelists will discuss what changes must be made in order to prioritize the skills that machines have not yet replaced, as well as the importance of investments in vocational training programmes. Additionally, the discussion will touch on the responsibility of the private sector in training and up-skilling their employees, while providing apprenticeships and training opportunities to young people. These solutions will play an outsized role in enabling the participation of youth at various levels.

Consequently, panelists will debate the fact that despite the potential for notable economic and social returns coming from technological advancements, developing countries feel that keeping up with the pace of progression in developed countries will be challenging – leading to a further exacerbation of existing inequalities and a compounding of the current youth unemployment crises across the developing world.

Guiding questions:

a) What are the available frontier technologies that can be leveraged to create job opportunities for the youth? Are they applicable to developing countries?
b) What are the challenges of the 4IR from a developing country perspective?
c) What should work look like in the future?
d) What tools are available to global, regional and national policymakers to ensure a fairer global economy – reducing inequality between and within countries?
e) Do the social and economic returns from the 4IR outweigh the costs?
f) Is there a way for developing countries to keep up with the rest of the world? What role does the private sector have to play in this?

Participation

This event will bring together a diverse panel that appropriately includes young people, in both the public and private sector, and representatives from youth organizations. Other participants will include Member States, United Nations organizations, as well as representatives from academia, the private sector and civil society that are attending the ECOSOC Youth Forum.
Format

 Introductory remarks will be delivered by the organizers, followed by a panel discussion. Each panelist will give a brief introduction and their thoughts on the current state of youth employment and how they think the Fourth Industrial Revolution will impact this. The moderator will then facilitate an interactive and open discussion, allowing panelists to interact with one another and the audience.

PROGRAMME

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<th>Opening Statement</th>
<th>Ms. Claudia Linke-Heep, Deputy Representative, UNIDO New York Office</th>
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| Panel Discussion  | Moderator: Ms. Jamira Burley, Global Business Coalition for Education  
|                   | Mr. Jonathan Said, Head of Inclusive Growth and Private Sector Development Practice, Tony Blair Institute for Global Change  
|                   | Ms. Noella Bigirimana, Rwanda Government Fellow, World Economic Forum Centre for the Fourth Industrial Revolution  
|                   | Ms. Aisha Taylor, Community Engagement & Partnerships Manager, Google  
|                   | Ms. Allyson Knox, Senior Director for Education Policy, Microsoft (TBC) |
| Q&A               | Interactive discussion with the audience |
| Conclusion        | Closing remarks by Ms. Ursula Wynhoven, Representative and Head of the Liaison Office, ITU |