S4YE
Insights from the Private Sector

Nov 20, 2019 | 9:00am – 10:30am | WebEx
Welcome

Namita Datta, Coalition Manager, S4YE
Solutions for Youth Employment (S4YE) is a vibrant multi-stakeholder coalition based in the World Bank that brings together:

- 44 innovative youth employment projects
- 25 private sector companies and associations
- Youth
- Foundations, Donors, Bilateral and Multilateral organizations.
- 150 youth employment projects of the World Bank
- Part of World Bank Multi Donor Trust Fund with:
  - United Kingdom – DFID
  - Norway – Ministry of Foreign Affairs
  - Austria – Ministry of Finance; Austrian Dev. Agency
  - Germany - Federal Ministry, BMZ.
We bring together multiple stakeholders to advance youth employment

External Community of Practice ‘Impact Portfolio’

Youth Advisory Group

Private Sector Partners

World Bank Youth Employment Network
Promote peer to peer learning, sharing ideas and best practices

Combine the strengths of private sector (innovation, growth) with that of World Bank (scale, technical expertise, policy dialogue)

Facilitate deeper engagement and partnership between the private sector and the World Bank on major corporate initiatives
Launching a monthly webinar series showcasing the work of each of our private sector partners

A deep-dive profiling Private Sector led Youth Employment initiatives

Invitees include colleagues at the World Bank and IFC as well as S4YE’s partner network (150 WB youth employment projects, 44 innovative youth employment projects, 25 private sector companies, other bilateral donors and foundations)

Opportunity for the S4YE community to share experiences, ask questions and learn from each other;

Save the Date for the next webinar on ‘Emerging trends in Agri-preneurship’ featuring Nestlé and IFC on Dec 2, 2019
‘How AI is Creating Jobs for low-income Youth’

Speakers

• Naria Santa Lucia, Senior Director of Skills and Employability, Microsoft Philanthropy

• Jai Natarajan - VP, Marketing & Strategic Business Development – iMerit

• Davide Strusani, Principal economist – TMT, Disruptive Technology and Funds, IFC

Overview

• This webinar is the first in the ‘S4YE-Insights from the Private Sector’ series and focuses on the opportunities that Artificial Intelligence could provide for low income and disadvantaged youth.

Agenda

• Welcome and Introduction
• Presentations
  • Artificial Intelligence and jobs; IFC’s experience
  • Microsoft Artificial Intelligence Strategy & Initiatives
  • How AI is Creating Jobs for low-income Youth at iMerit
• Q&A
• Closing
‘How AI is Creating Jobs for low-income Youth’

Speakers Bio

Naria Santa Lucia - Sr. Dir. of Skills and Employability, Microsoft Philanthropies at Microsoft

As the skills and employability lead at Microsoft Philanthropies, Naria works to manage the company’s global philanthropic investments and grant programs in digital skills, computer science education, and career pathways investments to drive digital inclusion and employment outcomes for traditionally underrepresented and under-resourced communities. Naria has also served as the Executive Director of the James B. Moran Center for Youth Advocacy, a juvenile and education law and social work organization in Illinois and the Director of LAW Fund and the Endowment for Equal Justice at the Legal Foundation of Washington. Naria is a graduate of the Law School and the College at the University of Chicago.

Jai Natarajan - VP, Marketing and Strategic Business Development, at iMerit.

iMerit has over 2500 data experts who label and enrich data at scale to help customers get better results from their algorithms. It does so while empowering women and youngsters in underprivileged communities to join the digital economy. iMerit works with leaders across sectors like Autonomous Vehicles, AgTech, Medical Imaging, e-Commerce and Financial Services, with diverse types of image, video and text data. Jai’s background is in Computer Graphics and Education.

Before joining iMerit, he founded Emmy- winning animation studio Xentrix, and has previously worked at Lucasfilm and Sony, and also run Marketing for a large chain of animation education institutes. He also serves on the board of Anudip Foundation, a livelihood development non-profit that trains thousands of marginalized youngsters in digital skills.

Davide Strusani – Principal economist – TMT, Disruptive Technology and Funds at IFC

At the IFC, Davide leads the economics team that focuses on telecoms, technology, digital services, venture and equity fund investing. As part of its role, Davide’s team assesses the development impacts of investments made by IFC in these industries and undertakes economic research to inform the development of private sector market in developing economies.

Davide is a recognized expert on the role of communications and technology in delivering economic and social growth, having led numerous in-country campaigns aimed at focusing governments and sector regulators on the benefits of ICT.

Davide has over 16 years of experience in development banks and top global consulting firms, working for over 50 large organizations including governments, private clients, industry organizations and NGOs, in 40 countries worldwide. Davide has worked extensively for digital players such as Google, Facebook and eBay. Davide is an expert of mobile connectivity and of telecom regulation and competition, and has studied in depth the evolution of competition policy across the digital ecosystem. Davide featured twice in The Economist as expert of the economic impacts of Hyperconnectivity, and one of his papers on a global study on the economic impacts of mobile broadband on growth has featured in the World Economic Forum Review. Davide is a regular speaker at the GSMA’s World Mobile Congress.
A member of the World Bank Group
Provides investment, advice, resource mobilization
AAA credit rating; owned by 184 countries
Present in nearly 100 countries
Invested and mobilized $19 billion in FY19

*IFC is the largest global development institution focused on the private sector in emerging markets.*
IFC invests in digital and AI startups across multiple sectors globally

Invest through our Venture Capital portfolio

- Health
- Education
- Logistics
- B2B Marketplaces
- Cleantech

Invest through our Fintech portfolio

- Payments
- Lending & Originators
- Capital Markets Infrastructure
- Insurtech
The economic case for AI

➢ Traditional pathways to a country’s economic development are increasingly subject to technology-based disruptions

➢ Despite the potential risks of AI, failing to take advantage of the opportunities it offers could be even more costly
What happens to jobs?

AI offers significant opportunities for job creation in EM mainly through entrepreneurship and innovation.
How do we support digital entrepreneurship?

- Policy
  - R&D environment & institutions
  - Venture-friendly legislation and processes
  - Taxation
  - Foreign business friendliness
  - Digital industry support and incentives
  - Entrepreneurship strategy and regulatory framework incentives (e.g., tax benefits)

- Markets
  - Availability and pricing of digital devices and platforms
  - Availability and pricing of Internet access
  - Digital commerce channels and value chains
  - Financial inclusion levels

- Financial Capital
  - Angel investors
  - Venture capital / private equity
  - Debt finance
  - Capital markets
  - Foreign investment

- Human Capital
  - Availability of software developers
  - Skill levels of developers
  - Managerial and organizational skill levels
  - Creative skills
  - General availability of skilled labor

- Infrastructure & Supports
  - Internet speed
  - Energy
  - Transportation & logistics
  - Tech hubs, co-working places, incubators, and accelerators
  - Professional (social) networks
  - Entrepreneur-friendly associations
  - Events and conferences

- Culture
  - Business activity (esp. in creative sectors)
  - Attitudes toward entrepreneurship
  - Risk tolerance
  - Confidence
  - Social media attention
  - Role models
With the exceptions of China and India, emerging markets have received a modest share of global investment in advanced technologies.
Africa is receiving extremely limited funding – where more jobs are needed and populations are younger

Total VC flows to emerging markets between 2008-2017 excluding China and India was just $24 billion, compared with global flows to the United States over the same period of $694 billion.
At IFC we see Financial Capital and Professional Skills as critical to build an AI ecosystem.
Leveraging AI to expand markets delivers the largest opportunities to create sustainable jobs

FINTECH
- Payments
- Credit
- Insurance
- SME business services

RETAIL
- Marketplace and ecommerce
- Enabling services

TRANSPORT & E-LOGISTICS
- Rides
- Last mile delivery
- Trucking
- Freight visibility
Beyond innovation, entrepreneurship and market expansion, AI generates direct activities and indirect opportunities to augment human capital.

**Direct AI businesses**

| High-skill talent export | Low-skill talent export |

**Upskilling and Matching**

**Labor-matching algorithms**

**Augmenting human capital**

| Healthier workforce | Targeted education |
What risks need to be managed?

➢ Poor job quality
➢ Reduced outsourcing opportunities
➢ Automation of routine activities
➢ Disruption of local businesses
Questions?
Microsoft
Philanthropies
Increasing AI Skills and Education for Youth

Naria K. Santa Lucia
Microsoft Philanthropies
Rapid advancement in technology is changing how we live, how we work, and how we learn.
But as technology moves forward, billions of people are at risk of being left behind.

- **700+ million**: Living in extreme poverty, on less than $2 per day
- **71 million**: Refugees and internally displaced people
- **49%**: Of the world is not using the internet
- **1 billion**: People on the planet with disabilities, but only one in ten has access to the products they need
- **54%**: Of employees will require significant re- or upskilling by 2022
“When your technology changes the world, then you bear a responsibility to help address the world that you have helped create and accept greater responsibility for the future.”

—Brad Smith, President of Microsoft
Microsoft Philanthropies Mission:

Empowering communities and nonprofits to realize the promise and potential of technology
We must advance a future that is for everyone

- Close the opportunity gap
- Advance technology for good
- Ensure responsible use of technology

Earn and sustain trust
The AI revolution has created a shortage of AI talent in the world

A study published by the Chinese company Tencent confirms the lack of supply. They estimate that there are ~ 300,000 AI practitioners and researchers worldwide, but there are millions of roles available for people with these qualifications.\textsuperscript{6}

MIT technology reviews estimates that the salary of people in the US with these AI Skills could be higher than 300K, and even go higher than $1M for the right set of skills. The majority of organizations outside the tech industry do not have the money or salary structure to hire/retain/attract this talent, we need to consider that 300K is double the average salary of a CEO in the US.\textsuperscript{7}

The average salary for a Chief Executive Officer (CEO) is $158,428.
Outside the tech industry, organizations do not have the capacity/structure to hire AI talent.

Using LinkedIn data, we observe that the top companies employing AI talent are mainly in the tech industry and education. The Tech industries alone account for 44.5% of AI talent in the US, although Tech industries only account for 10% of the workforce.*

Companies with more AI talent:

- Google
- Amazon
- Microsoft
- Facebook
- Apple
- Intel Corporation
- IBM
- Stanford University
- Carnegie Mellon University
- Georgia Institute of Technology
- Uber.com
- Lockheed Martin
- LinkedIn
- Qualcomm
- Cisco
- Boeing

Source: LinkedIn
Important that creators of AI come from diverse groups

**Gender Gap**

In the European Union overall, only around 16% of all AI workers in the EU are women. This is comparable to the U.S., where less than 20% of AI workers are women. And despite some variations across Europe, the share of women in the AI workforce never exceeds 30% in any EU member state. The low level of female AI talent is a pressing issue. Diverse representation among emerging technology workers is crucial for the sector, and especially important for AI products given the potential for bias against members of diverse social, economic, or political groups.
Focus on AI skilling to close the opportunity gap

By 2025, 10 million people unreached or displaced by technology will be equipped with the computing and AI skills to be employed in the digital economy.
Focus on AI Skilling to close the opportunity gap

Emerging Markets //

- Build foundational digital literacy skills
- Provide access to high quality, inclusive computing and CS training and education
- Equip people with AI skills and education

Developed Markets //

Training and Credentials

Capacity Building

Policy and Collective Action

Provide employment in the digital economy
AI Offerings for Youth and Young People

- FarmBeats School Kits
- DigiGirlz AI
- Imagine Cup Junior AI Challenge
- Minecraft AI Tutorial
- Microsoft AI School
Thank you

naria.santalucia@microsoft.com
How AI is Creating Jobs for low-income Youth

Jai Natarajan, VP
We are iMerit

iMerit is a **tech-enabled data services** company that leverages human intelligence in data, content, and machine learning.

We deliver high-quality, managed services while effecting **positive social and economic change**.

Our data experts work **full-time onsite** at our secure delivery facilities.

| 2,700+ employees | SOC 2 certified | 130+ clients | 200 M+ data points delivered | 9 centers | < 5% attrition | 24x7 operations |
An AI algorithm is a blank slate: it is trained using data that we feed into it.

Data labeling is the act creating flashcards for AI to learn more efficiently. It relies on human judgement.

The AI learns iteratively from thousands of flashcards.

The best things about NOLA are the waitstaff and the atmosphere. It’s a lovely space, and whoever trains the staff is a pro: they are friendly and very efficient. The food is just average. I ordered a crab cake, it was virtually flavorless and the cornbread was dry as dust. A standout for us was desert: delicious bread pudding and turtle pie. We will be coming back for the ambiance and deserts.
Experience and Expertise

- Autonomous Vehicles - Images + LiDAR
- Named Entities in Financial Documents
- Peril Assessment for Property Insurance
- ID tumors and lesions in medical scans
- Baseball, golf, soccer video analysis
The AI Workforce

Young, mostly millennials or Generation Z, 18-30

Born Mobile

Mindset Digital, Online

Not defined by conventional degrees or fixed qualifications

Leap-frogging into digital jobs using blended and self-learning
iMerit – Sourcing Model

SKILLING PARTNER
(Customized Skills Training + Digital Inclusion Training)

ONBOARDING & ON-THE-JOB TRAINING

UNIVERSITY GRADS & INDUSTRY HIRES
(Domain & Subject Matter Experts)

PROJECT SPECIFIC TRAINING
Inclusion Dashboard

- 2700+ employees
- 80% from low income backgrounds
  - < USD 100 per month family
  - Sporadic livelihoods
- 52% women
  - All women’s center (Metiabruz)
  - Recently launched center for rescued women from trafficking
- 2.5-3x income growth over 3-5 years
- 140 Inclusion employees have become team leads, PMs or trainers
Lessons Learned
Future of Work - How, Not What

- Market-Aligned Skills Training
  - Leadership Development
  - Domain Specialization
  - Contextual Understanding
  - English Enhancement Program
  - On Job Training

- Agile
- Nuanced
- Custom-Skill
- Micro-Reskill
Hybrid Approach

Solution Architects
Domain Experts
Delivery Management
Technology
L&D

Advanced Workforce
Deep and Narrow Learning

- “Para legals”, “Para medics”
- Context
- Learn by example
- Learn by doing
Lead with Capability

“We like iMerit for its Advanced Workforce”
Thank You!
Independent views

Do you think you are making a difference to society through your work?

- 79.10%
- 12.70%
- 8.20%

Do you feel that your opinion in family matters are considered with more importance after you started working with iMerit?

- YES: 69%
- NO: 13.50%
- MAY BE: 17.50%

Do you think joining iMerit have brought some positive changes and raised your income status, standard of living?

- YES: 92.80%
- MAY BE: 7.20%

* iMerit Employee Survey, Q4 2018
Straight from the heart

- How do you invest your savings?

- I buy gold: 18%
- I save it at bank/post office: 32%
- I buy land: 2%
- I invest in Share, mutualfund and others: 48.00%

*imErity Employee Survey, Q4 2018*
FARIA

Completed her Anudip MAST training and began working for iMerit as a Data Entry Operator. After a few years in this role, she was selected to be part of the Catholic Relief Services team and received several months of up-skilling to meet the technological requirements of the project. Today, she excels in her role.

Initially, when Faria completed her Anudip training, her parents did not want her leaving the community each day to work, a common theme in many households in the community. iMerit’s presence in Metiabruz allows Faria to work in a professional environment, support her family, and keep with community customs.

She is now financially independent and is able to pay her school fees as well as spend time with friends on the weekends.
RAJ KISHOR

Raj comes from a tribal village in Jharkhand hidden from the hustle and bustle of modernization and urban lifestyle. Terrorism and Maoism lurk in the daily existence of Raj and his family.

When he lost his job at an NGO due to an unforeseen shutdown, Raj signed up for the MAST program at the Anudip Foundation and became one of the first employees at iMerit’s Ranchi delivery center. He is now a social influencer for his community, close friends, and family.

Raj is a Sr. Team Lead focusing on image classification projects. As an experienced team member at iMerit, he works closely with his team to overcome challenges they face. It is imperative to guide his team members, spending time with them to improve their skills to maintain iMerit’s standards for accuracy and quality and delivering projects effectively.
SUNITRA BEHERA

She is from a village called Ali in the district of Kendra Para in Odisha. She studied from a small school in her village and currently pursuing her graduation in Arts. Her Father is an Auto Driver and Mother is a housewife. She has got two sisters and a brother. Her father’s income was not enough to fulfill all the needs of the family.

She has always had a curiosity about computers and technology, having a dream that one day she will get an opportunity to work in that domain and when she got the opportunity to work with iMerit Technology Services Pvt. Ltd., her dream came true. It has been over a year now and she believes that she is living her dream. Her economic condition has also improved and she is helping her father financially as well.

Sunitra is a dedicated worker focusing on natural language process. As an experienced team member at iMerit, she works closely with his team to overcome challenges they face. She is a quick learner and is always curious about learning new ways of doing her work more efficiently.
SURYAMANI ROUTRAY

She is from Sanapadar, a remote village in Khordha district of Odisha. She studied in a small village school and later did her graduation from Bhakta Vihar College which is far away from her home. Her Father is a Mason and Mother is a housewife.

It has been a tough life for her and she had struggled through the initial years of her life due to poor financial condition of her family. Her first real break came when she got selected in an interview to work for iMerit Technology Services Pvt. Ltd. She has been working here for a year now executing her job with responsibility and dedication.

. She has a lot of determination and wants to go up in the organization hierarchy moving ahead. She is a dedicated worker focusing on natural language process. According to her, life has changed after joining IMerit as she is now getting exposure to a world which is much different from her previous one. Also, her income is helping her and her family to lead a better life than before. It has been a change which has given her life a new meaning and an opportunity for further development.
Q&A

Webex Chat
Email: rsilva3@worldbank.org
S4YE Linkedin
Thank you and we look forward to working together!