# Digital Transformation Centres

Alfie Hamid
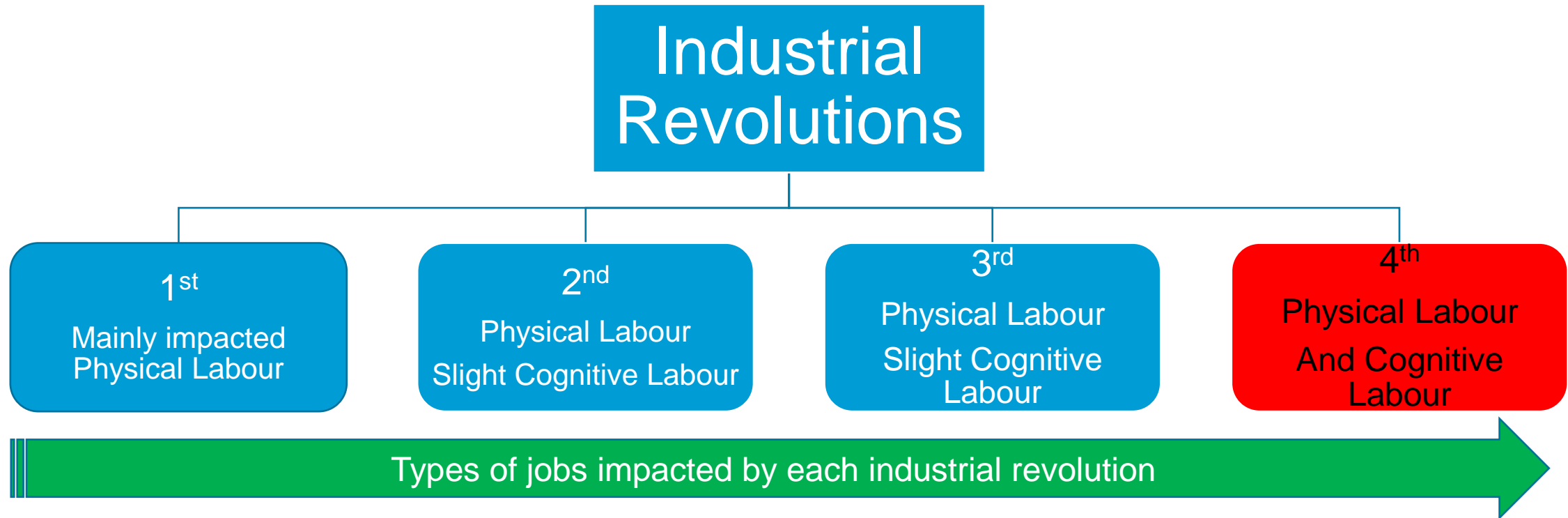Snr Manager, Global Partnerships
Cisco, Networking Academy

ITU-D Study Group 2 rapporteur group meetings (22 May - 2 June 2023)

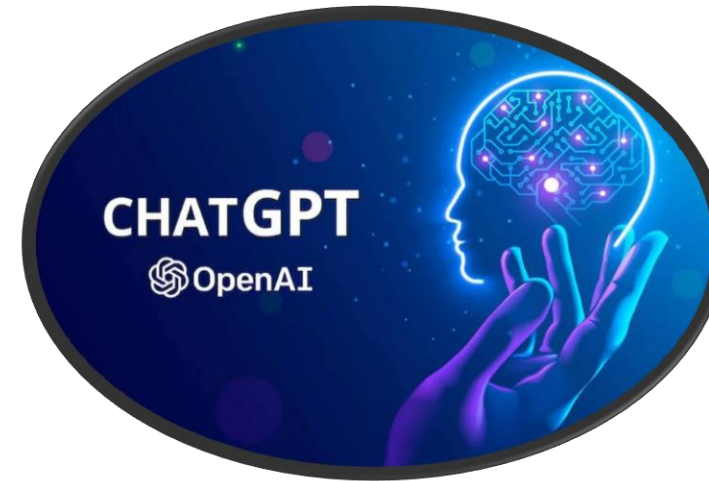# 4<sup>th</sup> Industrial Revolution

# 2018 Pre-COVID & 4$^{th}$ Industrial Revolution
## The Impact on Jobs

**Industrial Revolutions**

**1$^{st}$**
Mainly impacted Physical Labour

**2$^{nd}$**
Physical Labour
Slight Cognitive Labour

**3$^{rd}$**
Physical Labour
Slight Cognitive Labour

**4$^{th}$**
Physical Labour
And Cognitive Labour

Types of jobs impacted by each industrial revolution

# Where are we Today?

# OpenAI Research

- OpenAI looked at over 1,000 professions in the US
- Labelled each with various tasks needed to perform the jobs
- Used human annotators and a GPT-4 model to rate whether access to a ChatGPT-powered system would cut down the time required for a human to perform a specific task "by at least 50%."
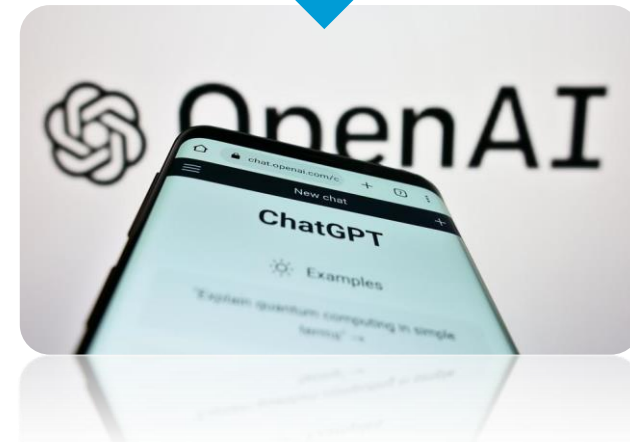
| Group | Occupations with highest exposure | % Exposure |
|---|---|---|
| **Human α** | Interpreters and Translators | 76.5 |
| | Survey Researchers | 75.0 |
| | Poets, Lyricists and Creative Writers | 68.8 |
| | Animal Scientists | 66.7 |
| | Public Relations Specialists | 66.7 |
| **Human β** | Survey Researchers | 84.4 |
| | Writers and Authors | 82.5 |
| | Interpreters and Translators | 82.4 |
| | Public Relations Specialists | 80.6 |
| | Animal Scientists | 77.8 |
| **Human ζ** | Mathematicians | 100.0 |
| | Tax Preparers | 100.0 |
| | Financial Quantitative Analysts | 100.0 |
| | Writers and Authors | 100.0 |
| | Web and Digital Interface Designers | 100.0 |
| | *Humans labeled 15 occupations as "fully exposed."* | |

| Model α | Mathematicians | 100.0 |
|---|---|---|
| | Correspondence Clerks | 95.2 |
| | Blockchain Engineers | 94.1 |
| | Court Reporters and Simultaneous Captioners | 92.9 |
| | Proofreaders and Copy Markers | 90.9 |
| **Model β** | Mathematicians | 100.0 |
| | Blockchain Engineers | 97.1 |
| | Court Reporters and Simultaneous Captioners | 96.4 |
| | Proofreaders and Copy Markers | 95.5 |
| | Correspondence Clerks | 95.2 |
| **Model ζ** | Accountants and Auditors | 100.0 |
| | News Analysts, Reporters, and Journalists | 100.0 |
| | Legal Secretaries and Administrative Assistants | 100.0 |
| | Clinical Data Managers | 100.0 |
| | Climate Change Policy Analysts | 100.0 |
| | *The model labeled 86 occupations as "fully exposed."* | |
| **Highest variance** | Search Marketing Strategists | 14.5 |
| | Graphic Designers | 13.4 |
| | Investment Fund Managers | 13.0 |
| | Financial Managers | 13.0 |
| | Insurance Appraisers, Auto Damage | 12.6 |

# Findings
# Highest Exposed Jobs

- Interpreters and Translators
- Poets, Lyricists and Creative Writers
- Writers and Authors
- Journalists
- Public Relations Specialists
- Mathematicians
- Tax Preparers
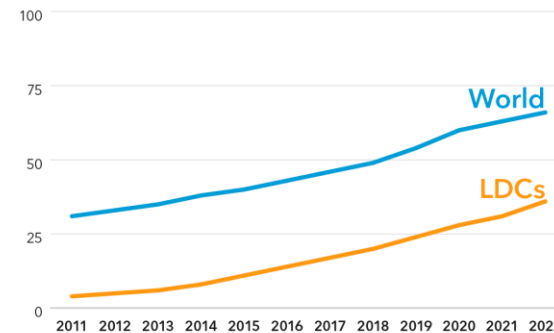- Blockchain Engineers
- Accountants and Auditors

# Leveling the playing fields?

**Digital Equity** is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services.



**66%** of people online in the world in 2022

**36%** of people online in LDCs in 2022

Note : being online means having used the Internet in the last three months

Source: ITU, *Facts and Figures: Focus on Least Developed Countries*



**Growth of Internet use in LDCs**
Percentage of Individuals using the Internet from 2011 to 2022

World

LDCs

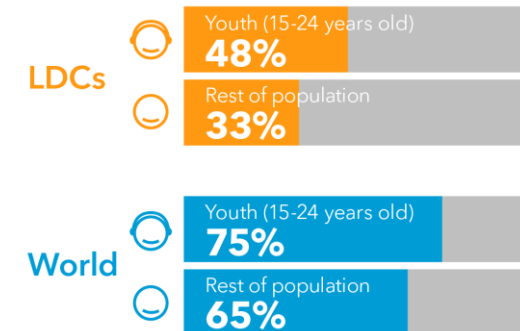2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Source: ITU, *Facts and Figures: Focus on Least Developed Countries*



**Digital generational gap in LDCs**
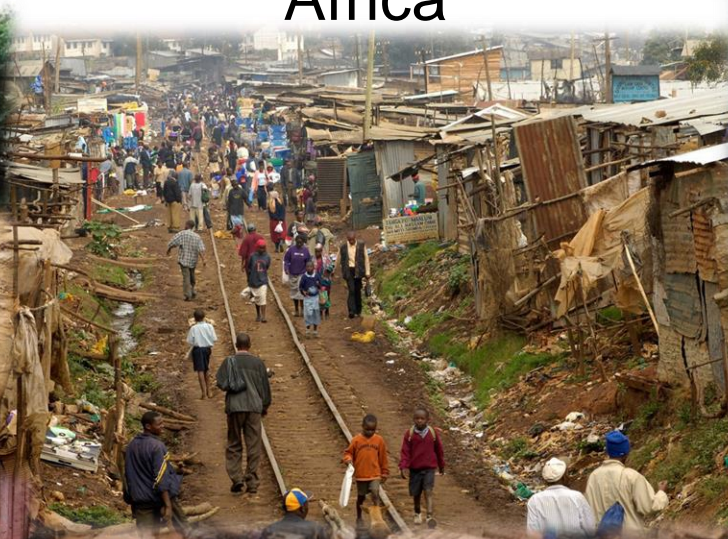Percentage of individuals using the Internet in 2022

LDCs
- Youth (15-24 years old) **48%**
- Rest of population **33%**

World
- Youth (15-24 years old) **75%**
- Rest of population **65%**

Source: ITU, *Facts and Figures: Focus on Least Developed Countries*

# Beneficiaries



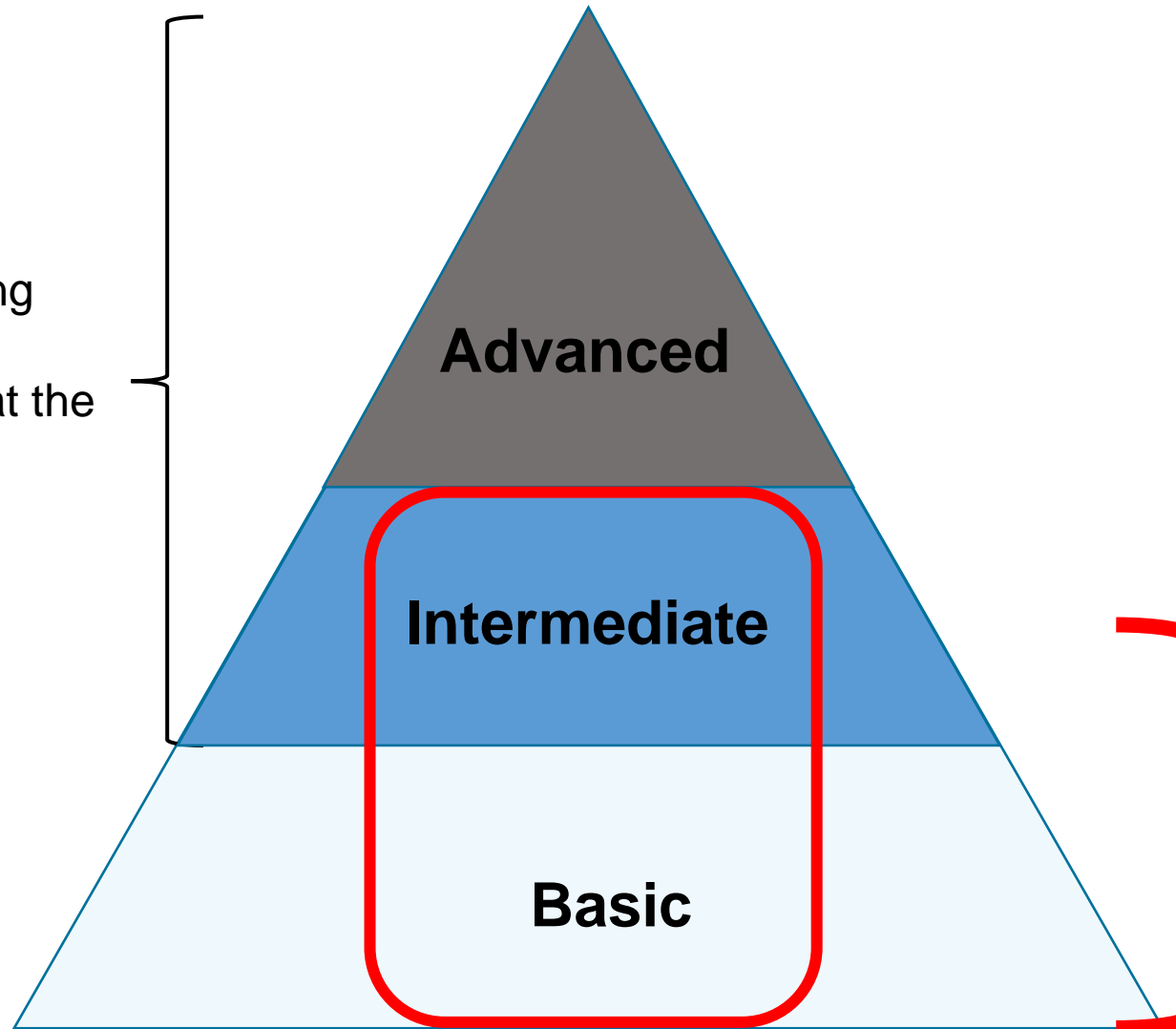Africa

Americas

Europe

Asia Pacific

# Beneficiaries

- Rural
- Underserved
- Underrepresented
- Gender equity
- Poor
- Disabled
- Elderly

# Digital skills levels for Beneficiaries

- Improve workplace efficiency
- Enable startups using digital tools
- Use of digital tools at the community level.



- Target masses who need basic digital skills knowledge for digital inclusion

**Networking Academy** — CISCO

# DTC Training Catalogue

| Level | Topic | Face-2-Face or Self-paced | Provider | Provider's Course / Program Name |
|---|---|---|---|---|
| **Basic** | Basic hardware (e.g. input devices, ports) | Both | Cisco NetAcad | Get Connected |
| | Desktop computing (e.g. operating systems, folder management) | Both | Cisco NetAcad | Get Connected |
| | Essentials of Web navigation (e.g. browsing, search, email, web forms) | Both | Cisco NetAcad | Get Connected |
| | Basics of Cyber Security (e.g. network security, privacy, malware) | Both | Cisco NetAcad | Intro to Cybersecurity |
| | Basics of Social Media (e.g. Facebook, Instagram) | Both | Cisco NetAcad | Get Connected |
| | Basics of IoT (e.g. digital transformation, processing standard business processes) | Both | Cisco NetAcad | Intro to IoT |
| **Intermediate** | Fundamentals of Networks (e.g. basic networking concepts) | Face-2-Face | Cisco NetAcad | Networking Essentials |
| | Fundamentals of Cybersecurity (e.g. security controls) | Face-2-Face | Cisco NetAcad | Cybersecurity Essentials |
| | Fundamentals of programming (e.g. C, C++, Python, Linux) | Face-2-Face | Cisco NetAcad | C, C++, Python and Linux |
| | Computer hardware and software | Face-2-Face | Cisco NetAcad | IT Essentials |
| | Fundamentals of Entrepreneurship & Innovation (e.g. leadership, communication, teamwork) | Both | Cisco NetAcad | Entrepreneurship |

# Challenges

- Access: devices and connectivity
- Training Venues
- Trainers
- Local language

# Solutions

- Local partners and sponsors
- Community centers
- Training of trainers & self-paced
- Local trainers

# Thank You