

Utilizing Digital Solutions: **Digital Tools to Address the Needs of the Disadvantaged Groups**

#WhyNot?

© All rights reserved



Faculty of
Computing and
Digital Technology





MINISTRY OF HUMAN RESOURCES



WAPES Asia-Pacific Regional Conference

Mitigating Future Skills Gaps:
Progressing Into a Digital World of Work

16-17 July 2024 | Kuala Lumpur, Malaysia



Prof. Dr. R. Logeswaran
Dean,
Faculty of Computing and Digital Technology
Chairman, Learning Technology Committee



INTRODUCTION

- Digital tools can **significantly impact** the lives of **disadvantaged groups** by providing them with **access to resources and opportunities** that might otherwise be unavailable.
- By leveraging technology, we can help **bridge the gap** and **promote greater inclusion and equality**.



Digital Tools in Education

Segments Assisted:

- **Low-income** students
- Students in **remote areas**
- Individuals with **limited access** to quality education

Example Tools:

- Khan Academy
- Coursera
- Duolingo
- ChatGPT



How They Assist:

- Provide **free or affordable access** to a wide range of courses and learning materials.
- Offer **flexible learning schedules**, which can be crucial for those who need to work while studying.
- Enable **self-paced learning**, helping students to learn at their own speed



Digital Tools in Healthcare

Segments Assisted:

- People in rural or **remote areas**
- Individuals with **mobility issues**
- **Low-income** populations



How They Assist:

- Offer **telemedicine** services, allowing patients to consult with healthcare professionals remotely.
- Provide **symptom checkers** and **health information**, empowering users to manage their health proactively.
- Facilitate appointment **scheduling** and medication **reminders**.

Example Tools:

- Ada Health
- Babylon Health
- mHealth (Mobile Health) Apps



Digital Tools in Mental Health & Relaxation

Segments Assisted:

- Individuals experiencing **mental health issues**
- **Low-income** populations
- People in **remote areas** without access to traditional mental health services

How They Assist:

- Provide **guided** meditation and mindfulness practices to reduce stress and anxiety.
- Offer **online therapy sessions** with licensed professionals.
- Facilitate access to mental health **resources** and support communities.
- Provide relaxation apps (e.g., **games, music,** videos, etc.)

Example Tools:

- Headspace
- Calm
- Talkspace



Digital Tools in **Financial Inclusion**

Segments Assisted:

- **Unbanked** or underbanked populations
- **Small business owners** in developing regions
- Individuals in need of **microloans**

How They Assist:

- Provide **mobile banking** solutions for those without access to traditional banking.
- Enable secure and easy **online transactions**.
- Offer **microfinance** and peer-to-peer lending platforms.

Example Tools:

- M-Pesa
- PayPal
- Kiva



Digital Tools in Employment & Skill Development

Segments Assisted:

- **Unemployed** individuals
- People seeking to **upskill** or **reskill**
- **Freelancers** and gig workers

Example Tools:

- LinkedIn Learning
- Skillshare
- Upwork



How They Assist:

- Offer **courses** and tutorials on various skills and professions.
- Provide platforms to showcase skills and **connect with potential employers**.
- Facilitate freelance **job opportunities**.



Digital Tools in **Accessibility**

Segments Assisted:

- **Visually impaired** individuals
- **Hearing impaired** individuals
- People with **physical disabilities**

How They Assist:

- Offer **real-time assistance** for visually impaired users.
- Provide screen readers / other **accessibility features** for navigating digital content.
- Enable **voice commands** and other assistive technologies for greater digital accessibility.



Example Tools:

- Be My Eyes
- VoiceOver (Apple)
- NVDA (NonVisual Desktop Access)
- Automatic captions



Digital Tools in **Communication**

Segments Assisted:

- **Isolated** individuals
- Migrants and **refugees**
- **Low-income** populations

Example Tools:

- WhatsApp
- Zoom
- Signal

How They Assist:

- Facilitate free or **low-cost** communication with family and friends.
- Provide **video conferencing** for remote learning and work opportunities.
- Offer secure and private messaging for those in need of **confidentiality**.



Digital Tools in **Exploration & Experimentation**



How They Assist:

- Facilitates **virtual experience** (e.g. virtual tourism).
- Allows **detailed understanding** without the high cost of purchasing and/or travelling.
- Offer **safe** exploration.

Segments Assisted:

- **Low-income** populations
- People in **remote locations**
- Those with severe **disabilities**

Example Tools:

- Websites
- Mobile apps
- Extended Reality (XR)



Digital Tools in Creativity, Innovation & Productivity



Example Tools:

- ChatGPT
- AI tools
- Office suites
- Utilities

Segments Assisted:

- **Low-income** populations
- People in **remote locations**
- Those disadvantaged due to **cultural or religious barriers**

How They Assist:

- Provide **ideas**.
- Speeds up **knowledge discovery**, overcomes language barrier.
- Allows **creation** of solutions and presentation of ideas beyond the ability of the user alone.



Digital Tools in Knowledge Sharing / Quick Fix

Segments Assisted:

- **Low-income** populations
- People in **remote locations**
- Areas **without electricity**

Example Tools:

- YouTube
- TikTok
- WhatsApp
- Facebook

- Solar Bottle Light
- Irrigation without electricity
- Spiral pump
- Household remedies

How They Assist:

- Provide **ideas** and quick fixes for everyday problems.
- **Guidance in building** cost-effective solutions with readily available materials.



ISSUES



- Plagiarism / Dishonesty
- Insufficient Effort / Lack of critical thinking
- Hallucinations / Incorrect “facts”
- Privacy Issues
- Scams / Malicious Intent / Cyberbullying

Provide training / guidance in proper use of the digital tools



CONCLUSION

- **F**act: Digitalization is part of modern life
- **C**reate: Improve productivity & innovation
- **D**etermine: Security, Privacy & IP issues
- **T**arget: Ethical use of the digital tools

Enquiries:
Prof. Loges
Logeswaran.nr@help.edu.my

THANK YOU

HELP UNIVERSITY

