The safe, wise and secure use of digital tech by Nepali migrants and their families: advice for those with little experience of using digital technologies

Source: Tim Unwin

ROYAL HOLLOWAY UNIVERSITY OF LONDON

UNESCO Chair in ICT4D

Facilitated by the UNESCO Chair in ICT4D with migrant communities in Nepal as a contribution to WP9 of the MIDEQ Hub

CC BY SA

UNESCO uniTwin

unesco
Chair

Overall aim of this training

Migrants' wives in Nepal discussing the impact of migration (Source: Anita Ghimire)

To provide migrants and their families who have little experience of digital tech with a basic introduction to its **safe**, **wise** and **secure** use, so that they can benefit appropriately from their use and enhance the lives of migrant communities.

What are digital technologies?

- Devices and systems powered by electricity that are used to share and store information
- Some examples
  - Radios
    - One way transmission of information
  - Basic mobile phones
    - To make phone calls and share messages
  - Internet
    - A globally connected system of information (data)
  - "Smart-phones"
    - Phones that can be used to connect to the Internet
  - Tablets and Computers (Laptops and Desktops)
    - More powerful and bigger devices for storing and sharing more information (data) on bigger screens
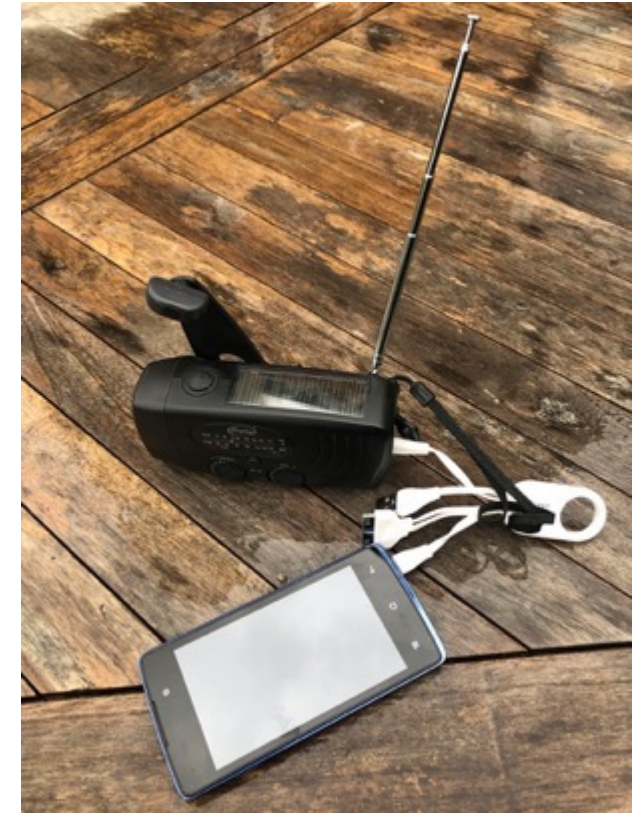
Solar powered and wind-up radio and battery charger
Source: Tim Unwin

The positive potential of digital tech

- Helping us to connect with family
- Sharing useful information with friends
  - News
  - How to get a job
- Gaining access to services (such as health, welfare and employment) provided by
  - Governments
  - Companies
  - NGOs
- For when we are in trouble: rescue and repatriation
- Managing our money and sending some of it home
- Language and translation
- Finding out where we are
- And much more…

Migrant's wife proudly showing off the tablet sent to her by her husband (Source: Anita Ghimire)

But to take advantage of all this, it is essential to use digital tech safely, wisely, and securely – all linked together

Source: Tim Unwin

Remember that digital tech can also be used deliberately or accidentally to cause many harms

The positives of digital tech can only be realised if...

- Migrants and their families have basic "digital literacy"
  - Knowing how to use digital tech
- And use digital tech:
  - Safely
    - Ensuring safe practices are used
  - Wisely
    - Using digital tech for appropriate purposes
  - Securely and privately
    - Making sure use of digital tech is as secure and private as possible

Source: Tim Unwin

1. Need to begin with basic use of digital tech

Source: Tim Unwin

We can do much more with digital tech if only we knew how! Everyone can learn how to be tech savvy!

ROYAL HOLLOWAY UNIVERSITY OF LONDON
UNESCO Chair in ICT4D

UNESCO uniTwin
unesco
Chair

Using a basic mobile phone

- Phones enable you to connect by voice or text to family and friends
- But remember that everything you use a digital phone for can be traced
  - So use it wisely and carefully
- It requires electricity, so remember to charge it up
  - There are many ways of doing this
- You need to be connected to a network
  - Having an account (with a SIM card) and a supplier
  - Ensure you are within coverage area of your supplier

Basic Nokia phone
Source: Tim Unwin

Need to connect to a Network: SIM Cards

- SIM cards
  - Enable you to connect to a network
- Different companies and networks
  - Charge different amounts
  - Offer different services
- Payment
  - Prepaid (pay in advance as needed)
  - Contract (usually monthly charged to a bank account)
- Need to choose company that will best suit your needs

SIM cards
Source: Tim Unwin

(Note: SIM means Subscriber Identity Module)

Using smart-phones

- Smart-phones enable you to be connected to the Internet
  - As long as you are within the network coverage area of your supplier
  - But they are more expensive to buy and use
- Can still be used for basic calls and text
- Also can have many apps (applications) that run on them to do things
  - Some free, but many need to be paid for
- Typical apps and platforms
  - Social media and messaging (such as WhatsApp, Facebook, Viber, TikTok)
    - For communicating and sharing text, images, audio and video
  - Games
  - Watching films
  - Making payments
  - Accessing platforms and apps such as
   - Such as DOFE Baideshik Rojgar, and https://pardesi.org.np

Smartphone
Source: Tim Unwin

Connecting to the Internet

UNESCO Chair in ICT4D

- What is the Internet (or Net)?
  - A global system of connected computers that you can access when you are "online"
- What is the World Wide Web (or Web)?
  - The pages and information you see when you connect to the Internet
- Connectivity through mobile networks and WiFi
  - Mobile data package
  - Using WiFi (but remember data security issues)
    - Public (sometimes free as in airports) and private WiFi networks
- Searching the web using Browsers
  - Popular such as Chrome (Google), Safari, Firefox, DuckDuckGo
- Interacting: using voice, text, video through applications (apps)
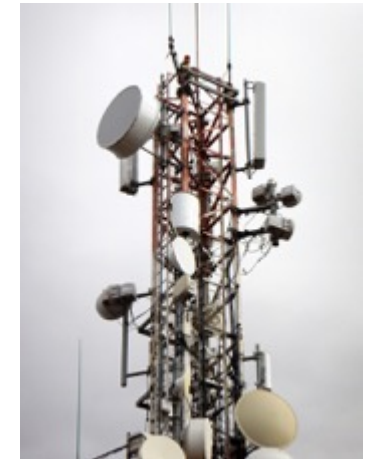
Mast for mobile connectivity
Source: Tim Unwin
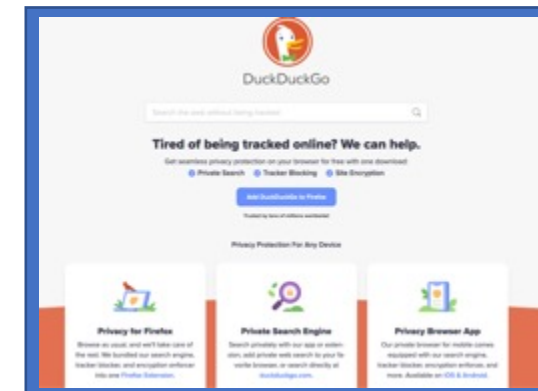
Digital literacy and information literacy

- Digital literacy (see also GSMA [guide](#)):
  - Knowing how to use hardware effectively
    - The full potential of a phone
    - Screens
    - Keyboards
    - Other uses – such as a torch or compass
  - Using software appropriately
    - Learning how to use different apps
      - Understanding and changing the settings
    - Learn how to use social media (Facebook, X/Twitter) and messaging apps (WhatsApp, Signal) safely and securely

- Information literacy:
  - How to know if information is true or not
  - Is the information genuine and authentic?
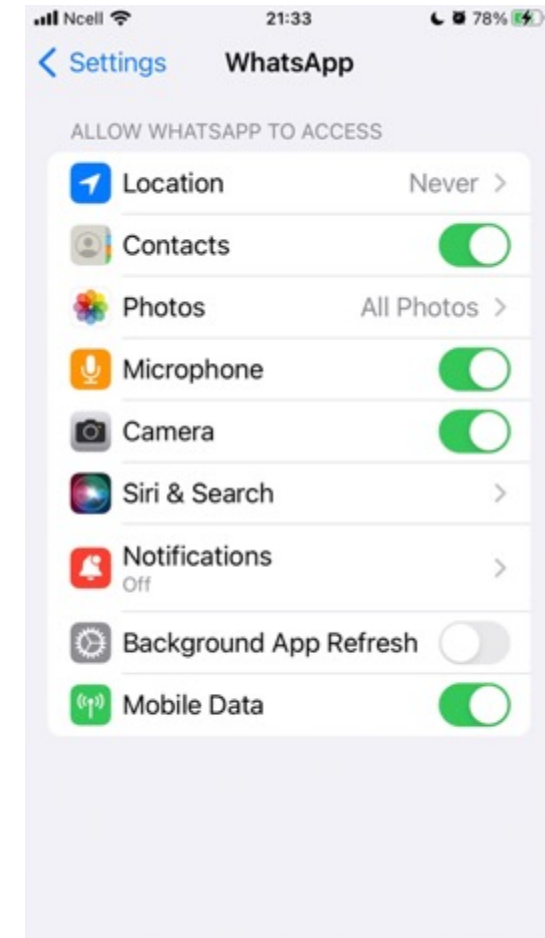
Discussion

2. The safe use of digital technologies

Source: Tim Unwin

"Using digital tech so you are not at risk of harm or of harming others"

ROYAL HOLLOWAY UNIVERSITY OF LONDON
UNESCO Chair in ICT4D

UNESCO uniTwin
unesco Chair

Key elements to remaining safe: knowing the potential harms

- Knowing the potential harms
  - Being tracked
  - Online abuse and harassment
  - Bullying
  - Scams and losing money or documents
  - What we give to companies by using digital
  - If it seems too good to be true, it probably is…

- But don't be too afraid of them
  - Act wisely, safely and securely
    - So that you can truly benefit from digital tech

https://www.oceanpointins.com/ri-business-insurance/cyber-liability-insurance/8-common-hacking-techniques/

Key elements to remaining safe: behaving safely

- Behaving safely online
  - Learn about the tech and apps you want to use
  - Never share anything that could harm you or others
  - Try not to provoke others
  - Don't let yourself be persuaded to join an app/platform if you don't want to, or are unsure about it
  - Don't write or say something online that you would not say to someone's face
  - Don't click on a website link you aren't sure about
    - Check link begins with "https" rather than just "http"
  - Always try to protect the most vulnerable (e.g. children)
  - Beware of "deep fakes": they are not what they appear to be

Source: Tim Unwin

Key elements to remaining safe: technical

- Always report (to app owners and police/authorities) as soon as you can:
  - Phishing: tricking you to do something wrong
    - Never click a link you are unsure of
  - Hacking: compromising a digital system
  - Scams: many varieties of fraud – often to access your money, documents or identity
    - Watch out for scams using QR (Quick Response) codes
- Authentication
  - Passwords (keep them complex and unique for each app)
    - Longer than 10 characters and using numbers, symbols, and upper- and lower-case letters
  - Biometric authentication (fingerprints, face)
  - Multi-factor (several pieces of evidence)
  - Device recognition (securing your devices from malicious actors)
 - Be sure you know who you are really interacting with online or on social media

TIME IT TAKES A HACKER TO BRUTE FORCE YOUR PASSWORD IN 2023

Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	Instantly	Instantly	Instantly
5	Instantly	Instantly	Instantly	Instantly	Instantly
6	Instantly	Instantly	Instantly	Instantly	Instantly
7	Instantly	Instantly	1 sec	2 secs	4 secs
8	Instantly	Instantly	28 secs	2 mins	5 mins
9	Instantly	3 secs	24 mins	2 hours	6 hours
10	Instantly	1 min	21 hours	5 days	2 weeks
11	Instantly	32 mins	1 month	10 months	3 years
12	1 sec	14 hours	6 years	53 years	226 years
13	5 secs	2 weeks	332 years	3k years	15k years
14	52 secs	1 year	17k years	202k years	1m years
15	9 mins	27 years	898k years	12m years	77m years
16	1 hour	713 years	46m years	779m years	5bn years
17	14 hours	18k years	2bn years	48bn years	380bn years
18	6 days	481k years	126bn years	2tn years	26tn years

HIVE SYSTEMS

> Learn how we made this table at hivesystems.io/password

Top tips when you begin using mobile phones: always do these

- "Factory reset" a second-hand phone that you receive or give. This will erase any existing information/data on it.

- Keep your apps and operating systems updated with the latest versions

- Only ask someone you really trust to help set your SIM card settings or add money to an account

- Never share your passwords (and use strong ones)

- Get a physical case and screen protector for your phone

- Minimise the amount of personal information you keep on your phone in case it is stolen or lost.

Source: Tim Unwin

https://ict4d.org.uk
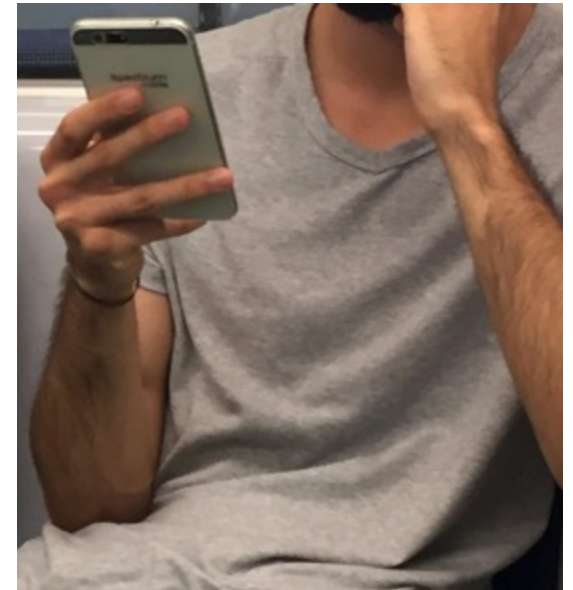
Remember the cultural contexts where you use digital tech

- Know the local cultural and legal contexts where you are living as a migrant

- In some countries it is wise not to take photos of:
  - Government buildings and military sites
  - Aircraft or airports
  - Incidents such as accidents

- Remember to respect other people's privacy and don't take photos of them without permission
  - Especially women and families

- Keep your selfies to yourself

Migrant labour in Dubai:
Source: TimUnwin

Discussion

3. Using digital tech wisely

Source: Tim Unwin

"Using digital tech with good judgement and knowledge"

ROYAL HOLLOWAY UNIVERSITY OF LONDON

UNESCO Chair in ICT4D

UNESCO uniTwin
unesco
Chair

Key elements to wise use of digital tech: what to do

- Do use it productively for what you want to use it for
  - and not for what companies or governments want you to use it for
- Do be very careful about what you post online
- Do learn properly how to use the tech and apps you have
  - Read the terms and conditions
  - Adjust the settings
- Do remember that everything "posted" remains online somewhere for ever
- Do be thoughtful and polite on social media
- Do take time away from digital tech
- Do think about creating multiple identities/e-mails (with a separate one for purchases)
  - And keeping a "clean" phone for emergencies

Key elements to wise use of digital tech: what not to do

- Don't post anything you would not want everyone to see
  - Who can see what you post?
  - Check privacy settings
  - Never post when you are upset or distressed
- Don't ever respond to messages/links you do not trust
  - Especially those pretending to be from your bank
- Don't waste too much time on
  - Social media
  - Gaming online
  - Online gambling
  - Digital violence
- Don't waste money
  - As with TikTok gifting
- Don't take risks through using digital tech
  - As with crypto currency investments
- Don't respond to provocation if you suffer a "troll" attack
  - It will only make it worse

Source: Tim Unwin

Discussion

4. The secure use of digital technologies

ROYAL HOLLOWAY UNIVERSITY OF LONDON

UNESCO Chair in ICT4D

"Using digital tech securely and with privacy"

UNESCO uniTwin

unesco Chair

https://ict4d.org.uk

See also video at
https://www.facebook.com/scmp/videos/246038106344865/?t=34

Key elements to secure use of digital tech – social behaviours

- Being private online
  - Remember that what you post on the Internet is there forever
  - Only post if you are sure that you and related others are happy with this
  - Never share your passwords with anyone
    - Don't ever share a One-Time Password (OTP) with anyone
  - Whenever possible reject all cookies when visiting websites.
- Secure and private from whom?
  - Governments
    - Remember mobile devices can be used for surveillance
  - Companies
    - Remember that most social media companies make their money from the data you give them for free!
  - Other people
    - Some are eager to exploit you through digital tech

Source: Tim Unwin

https://ict4d.org.uk

Key elements to secure use of digital tech: practical matters

- Keep your software as up-to-date as possible
  - The latest versions of apps usually improve security
- Turn off as many cookies (permissions) as possible
  - Only accept necessary cookies (or reject all)
  - So you don't share all you do online with organisations that you don't want to
- Thing about using free Virtual Private Networks (VPNs) to access the Internet
  - These help to hide a user's digital location and identity and makes them anonymous
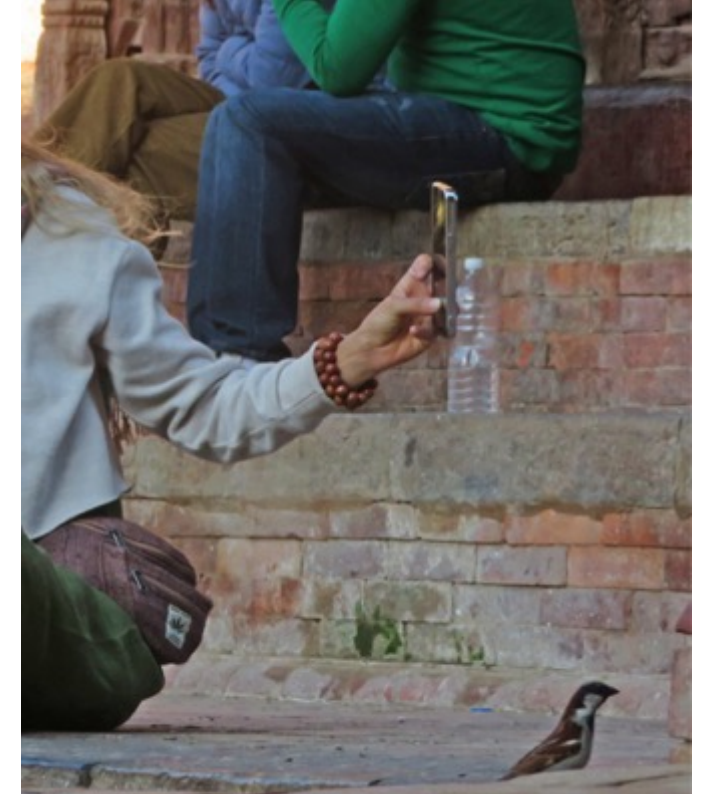
Source: Tim Unwin

Discussion

Conclusions: think about

Source: Tim Unwin

- **is it safe?**
- **is it wise?**
- **is it secure?**

Final reminders: being safe, wise and secure

What to do ✅

- Learn about how to use your digital tech
- Create robust passwords
- Use multi-factor authentication
- Regularly update your apps and operating systems
- Be thoughtful and polite on social media
- Take time away from digital tech

What not to do ❌

- Don't share your passwords
- Don't become addicted to digital tech
- Don't respond to messages you do not trust
- Don't waste money you can't afford on digital tech and social media
- Don't send money or documents online to someone you don't know
- Don't share anything online you would not want everyone to see

Origins of this training resource (2022-23)

Developed collaboratively with AuraEd, Hamropatro, Helvetas SaMi, NNSM, Pourakhi, PNCC, NIC, NISER, UNESCO Office in Kathmandu, Ujyaalo, Gandaki University, MRC Pokhara, and NEST Pokhara

ROYAL HOLLOWAY UNIVERSITY OF LONDON

UNESCO Chair in ICT4D

UNESCO uniTwin

unesco Chair

Funded by UKRI GCRF as part of the MIDEQ Hub (2019—2024)

Together with partner