



united world schools

# Bridging the Digital Divide



## Student Learning Pack

### Learn About the Digital Divide

From classrooms to after school games, technology is widely used in teaching and learning around the world. When used appropriately, technology has the power to support teachers and engage students and communities, while also supporting students in gaining the technological skills they will need to be successful as adults.

Yet, access to technology is limited for many people. According to the UN, almost half of the world's population cannot access the internet, and in the least developed countries, only 19% have online access. This gap in access to is often referred to as the digital divide.

In this student learning pack, you will:

- Learn about the digital divide and how it contributes towards inequalities in education
- Explore UWS' use of technology during covid-19
- Take action by raising awareness of the issue or organising an event

### How to use the learning pack

This global citizenship resource is designed for students aged 11-16 and is primarily designed for students to work through independently, for example as part of a club, community action project or as part of UWS' Student Ambassador Scheme. Students can work through the think boxes at their own pace, and in the 'Take Action' section, select the challenges that appeal the most to them.

Teachers are also welcome to adapt this resource to use in lessons. For example, it could be used within ICT lessons, PSHE, English and Geography.

# Technology and Education

Implementing technology into the classroom can provide many benefits to students and teachers. It's clear that technology will play a central role in nearly all aspects of our lives. Therefore, preparing students with the skills to navigate an increasingly digital workplace is critical. Research by the World Economic Forum estimates that 65% of children entering primary school will find themselves in occupations that do not exist today.

Education technology provides instant access to information and can encourage innovation in teaching and learning. This benefits both students and teachers. Below are some ways that technology can support student learning and engagement.



## Access to Education

A common argument against technology is that it is often unavailable to disadvantaged groups. However, technology has the potential to reach out-of-school children and provide opportunities to learn under difficult circumstances. For example, in response to Covid-19, countries around the world used technology and remote learning to continue education amid school closures.



## Student Learning and Engagement

Education technology can:

- **Make learning more interactive**- rather than memorizing facts, children learn by doing. This could be as simple as using computers to complete some research or a project, taking an interactive quiz or survey in class or playing educational games.
- **Improve student collaboration**- students can participate in online group discussions or share documents on their virtual learning environments.
- **Support student progress**- technology can help students progress at their own pace and guided exercises can provide support or challenge to ensure all students are learning.



## Digital Skills

By using technology in the classroom, both teachers and students can develop key skills for the 21st century. These include the skills needed to understand and use technology and the ability to problem solve, collaborate and think critically in digital spaces. Technology can also help develop many practical skills, including creating presentations, maintaining proper online etiquette and writing emails. These are very important skills that can help prepare students for the world of work.

**THINK**

## How do you use technology in your school?

1. **Create a mindmap of the different types of technology you use in your school.**

Add to the mindmap:

- How the technology is used? For example, is it used in class to support whole-class learning, or used by individual students?
- The benefits of each type of technology

2. **Can you imagine what your school life would be like without any access to technology at all?**

Discuss with a partner:

- How teaching and learning would change without technology
- Would there be any benefits to using **less** technology in school?

3. **Create a chart or other type of graphic organiser to show:**

- The benefits of using technology in education
- The negatives of using technology in education

# The Digital Divide

## What is the digital divide?

The digital divide refers to the gap between those with access to technology and the internet and those without. The divide is partly due to geographic challenges, where installing high speed internet is difficult in remote locations, which are often hard to reach and have unreliable power. Inequalities in wealth are also responsible, where the poorest and most disadvantaged communities have limited access to digital devices such as computers, tablets and mobile phones.

However, the digital divide is about more than simply access to technology. It also refers to the skills and abilities of people who benefit from technology. Those 'digital natives' who have grown up surrounded by technology, have access to devices at home and have acquired a basic level of technological skills have more opportunities than students who don't.

Just **54%** of the population have access to the internet. This drops to **19% in the least developed countries.**

During covid-19, the UN estimated that, for at least **500 million** children around the world, remote learning remained out of reach.



## Where we work

United World Schools works in remote regions in Nepal, Cambodia and Myanmar to provide children with access to education. Since 2008, we have:

- **built 226 primary schools**
- **trained 999 local teachers**
- **reached 36,500 children with education**

We work with communities that are physically isolated—typically, several hours' walk from the nearest town, with many families living on less than \$2 a day.

Before we built a school, the children in our communities had no access to education at all. As a result, literacy rates are often very low amongst parents and community members. Many of our students belong to ethnic-minority groups and speak the local language, isolating them from the government education system which is taught in a language they cannot speak or understand.

## Using technology in remote schools

- **Radio and TV:** In places where internet access is poor, radio and TV can be used to support educational delivery. Another benefit of radio and television is that one device can reach many learners at once.
- **Computers and tablets:** Installing computer labs in schools is a popular option as it provides students with opportunities to gain crucial digital skills. Tablets are a portable way to bring learning to new locations, and they tend to be less expensive than computers. Tablets can introduce game based learning to students, provide access to books away from school, and personalise learning.
- **Mobile phones:** The use of mobile phones in education has increased as phones themselves have become more advanced. Smartphones can provide access to educational apps, dictionaries, translators, textbooks, and more. Offline apps are particularly useful in places with unreliable internet connection.

*Dump hardware in schools, hope for magic to happen (World Bank, 2014)*

This is what we need to avoid. The teachers and students in most developing contexts have not grown up using technology. If we provide schools with equipment, it must be accompanied with training on how to use it. Otherwise, it may never be used—remaining in boxes or locked computer labs!

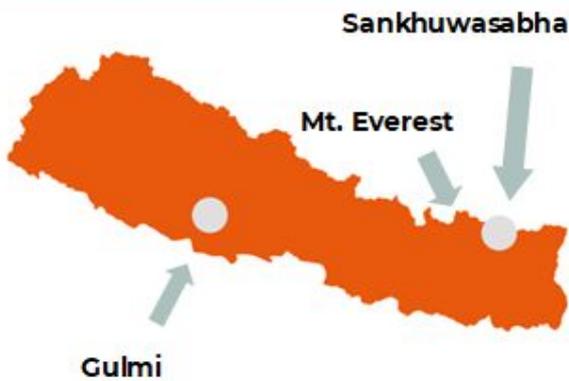
THINK

## Barriers to learning for UWS students

1. **What are some of the main challenges that students in UWS communities face?**
  - List each challenge e.g. poverty. Consider how each challenge affects education
  - How could technology help to solve some of these challenges?
2. **These educational challenges are called barriers to learning. Based on this information, discuss these questions:**
  - To what extent do you think UWS communities are affected by the digital divide? Do you think it is fair?
  - What are the main challenges of introducing technology into UWS schools?

**Challenge: Use the research links at the end of this pack to delve a little deeper into these issues. You might use this research to produce an article or presentation on the digital divide.**

# Case Study: Nepal



## Country Context

In 2006, Nepal emerged from a 10-year civil war, that left the country with high levels of **poverty and inequality, particularly in education**. With over half the population surviving on less than \$1.25 a day, Nepal has been ranked **19th poorest country in the world** by the International Monetary Fund. Nepal's literacy rate is among the lowest in the world, especially with women where over 40% are illiterate.

The first UWS school opened in 2016 in the Sankhuwasabha district, Nepal. At the start of 2018, UWS expanded further into the Gulmi district. These areas are extremely remote and often mountainous, with four-by-four tracks providing the only access to villages. Educational provision within the district is limited partly due to its geographical isolation. In such hard-to-reach areas, the government often struggles to provide education, with some communities left without a school. UWS build and run schools in these communities to provide children with access to primary education.

## The use of radio during Covid-19

In Nepal, half of the households UWS work in do not have access to the internet. With schools shut due to the spread of Covid-19, UWS had to think of alternative ways to reach these remote communities—as online learning would exclude over 50% of children.

UWS turned to technology that many might consider old fashioned: radio. Over 85% of households within the communities UWS work with have a radio. So the UWS team in Nepal began teaching daily lessons over a handful of local radio stations, with prompts for further homework. By the end of 2021, UWS worked in collaboration with 10 local FM stations and reached over 10,000 children with daily radio education programmes.

Only **50%** of households have access to wifi

Less than **50%** of households have access to a digital device (e.g. mobile)

There is **no technology** in UWS schools

## What are UWS schools like in Nepal?

In some ways, UWS schools in Nepal are similar to schools in the UK. Schools usually have a library, a playground and classrooms that are clean and welcoming.

However, there are some differences. For example, many schools have vegetable gardens, where children can learn about sustainable agriculture. As the vegetables are shared amongst students and their families, these gardens support the whole community. Some schools have solar power as electricity is not very reliable. Technology is either very limited or non-existent. **There are no printers, computers or projectors for students or teachers to use.**

# THINK

## UWS Nepal

- 1. UWS decided to use radio to reach children during the covid-19 crisis.**
  - Why did they choose radio? What are the benefits and disadvantages of using radio to provide children with education?
- 2. What technology would you use in a crisis? You have 1 minute to persuade your group/partner that your technology choice is the best solution for Nepal.**
  - Spend 15 minutes planning- select your technology of choice and come up with reasons why it is the best solution. Remember to consider the barriers in Nepal.
  - Each person in the group has 1 minute to make their case- no repetition!

**Challenge: Develop a concept note (plan) for the most convincing solution.**

You should: a) outline the problem and your proposed solution b) say how it will benefit student learning and c) provide detail on the costs involved, the training needed and the time it will take to implement.

# Take Action

Inspire the students and teachers in your school by raising awareness and finding creative ways to fundraise to support United World Schools. Help UWS be part of the tech solution!

Use the research links at the end of this pack to help you become an expert in the digital divide. You can look at the digital divide more generally, or focus on its impact in one of our countries.



## Engage

Engage students, teachers and parents in your school. Raise awareness of the digital divide, the challenges children in UWS schools face and the innovative ways United World Schools have used low-tech solutions to support student learning.

**You might:**

- **Develop a research project on the digital divide** and present key findings to your classmates/teachers/school
- **Host a discussion group** in your school
- **Deliver an assembly** educating students on the digital divide
- **Organise a debate:** Educational Technology- is it the problem or the solution?
- **Share your learning** through writing an article for the school newspaper



## Organise

Organise an event in your school or community to further raise awareness of the issue and to fundraise for our cause.

**You might:**

- **Organise an event to celebrate World Radio Day** on February 13  
<https://en.unesco.org/commemorations/worldradioday>
- **Organise a whole-school challenge** to raise awareness of the barriers children in remote schools- like UWS- face everyday. For example, challenge teachers and students to go technology free for a day!
- **Organise a fundraising event**, use our fundraising toolkit to spark ideas and get creative!  
<https://www.unitedworldschools.org/school-fundraiser-toolkit>



## Amplify

Use your platform and audience to raise awareness and shine a spotlight on our work.

**You might:**

- **Use social media** to promote our work and spark discussion
- **Write a blog** on the digital divide

# SHARE

## We want to hear from you!

**Let us know how you get on with these challenges. We encourage you to form groups and share ideas - within your school and beyond!**

### Tell us about your plans

Email the School Partnerships team on: [partnership@unitedworldschools.org](mailto:partnership@unitedworldschools.org)

We can provide advice and share UWS branded templates, to ensure your fundraising event, assembly or school challenge is a big success.

### Promote it!

Share any photos, school newsletters or social media content with us!

# Research the Digital Divide

## Useful Links

1.	Technology in remote locations <a href="https://blogs.worldbank.org/edutech/education-technology-poor-rural">https://blogs.worldbank.org/edutech/education-technology-poor-rural</a>
2.	Digital skills <a href="https://blogs.worldbank.org/edutech/the-second-digital-divide">https://blogs.worldbank.org/edutech/the-second-digital-divide</a>
3.	Power of technology (focus on electricity) <a href="https://www.one.org/us/blog/the-dark-side-of-education/">https://www.one.org/us/blog/the-dark-side-of-education/</a>
4.	Power of technology (benefits for education) <a href="https://www.webanywhere.co.uk/blog/2016/02/top-6-benefits-technology-classroom/">https://www.webanywhere.co.uk/blog/2016/02/top-6-benefits-technology-classroom/</a>
5.	Sustainable Development Goals (some stats) <a href="https://www.un.org/sustainabledevelopment/infrastructure-industrialization/">https://www.un.org/sustainabledevelopment/infrastructure-industrialization/</a> <a href="https://www.un.org/sustainabledevelopment/education/">https://www.un.org/sustainabledevelopment/education/</a>
6.	Digital Divide (during covid-19) <a href="https://www.educationdevelopmenttrust.com/our-research-and-insights/commentary/bridging-the-digital-divide-evidence-and-advice-on">https://www.educationdevelopmenttrust.com/our-research-and-insights/commentary/bridging-the-digital-divide-evidence-and-advice-on</a>
7.	Digital Divide (covid-19) <a href="https://www.sec-ed.co.uk/best-practice/coronavirus-digital-divide-disadvantaged-children-pupil-premium-technology-remote-teaching/">https://www.sec-ed.co.uk/best-practice/coronavirus-digital-divide-disadvantaged-children-pupil-premium-technology-remote-teaching/</a>

## Meet Abhira

**Abhira is 9 years old and lives in a remote village in Nepal. During covid-19, she has been learning through our radio education programme.**

"I tune into the radio everyday and enjoy listening to stories and fun facts. Due to the radio programme and support from my teacher, I feel more relaxed now. Me, my family and community are aware about coronavirus and how to stay safe."

