

# Digital technology underpins almost every aspect of modern living across work, travel, leisure and health, and good Internet access is now widely viewed as the '4th utility'.

Fast, reliable connectivity is vital to support business growth, help rural communities to thrive, improve health and well-being, and make it easier for people to get online and access public services.

Smart living	Transport	Environment	Healthcare	Education	Agriculture
Improving the quality of life for communities in and around the city.	Making travel easier, reducing congestion, and exploring intelligent mobility	Managing our water, energy, air quality and waste	Catering for an ageing population and providing public health	Making learning accessible in the home. Sharing resources online	Using new ways to farm
Mobile phones, Laptops	Timetables online	Smart meters	Online consultations	Home schooling	Soil Sampling
Computers	Cars are becoming smart cars	Flood warnings	Online prescription services	Online courses	Electronic tags
Wifi Calling	Road signs becoming digital	Recycling centres booking form	Alert buttons		Precision Farming
Smart Televisions	Traffic Alerts				Online Livestock Markets
Video Games	Satellite Navigation				Automatic dairy milking parlours
Wearable Tech (fitbit / apple watch etc)	Cars connected to manufacturers				Calving/Lambing sensors
CCTV					Automatic cattle drafting gates
Drones to deliver parcels					Automatic feeders
Smart speakers (Alexa/ Echo)					
Online shopping					

# Healthcare

## Doctor / General Practitioner

With poor connectivity healthcare professionals cannot effectively and efficiently consult with their patients online, they cannot access the critical medical systems they require, they cannot carry out online prescriptions, online research is not possible, Digital rota's become impossible and Digital consultation with colleagues via email or video cannot be achieved.

With fast, reliable Digital connectivity all the above becomes eminently possible. Healthcare professionals can work more efficiently, regularly conduct online research and continue to learn. Online video consultations are easily achieved, with greater connectivity GP's can email prescriptions to the pharmacy. The GP can consult with patients that may be shielding or live in very remote areas. With

online access the GP can consult with colleagues across the world.

During the pandemic, many healthcare workers have been isolated from their families and friends. By having better connectivity, they can now video call via online platforms, use social media and check in with their friends as well as continuing to work whilst complying to all regulations.



# Farm

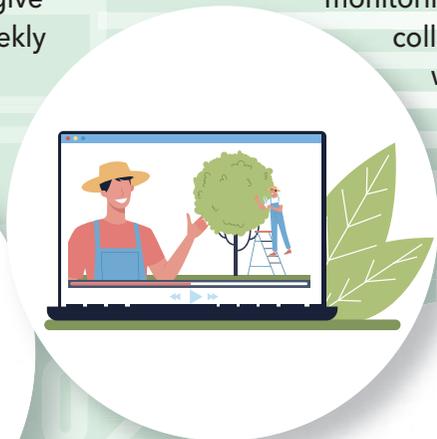
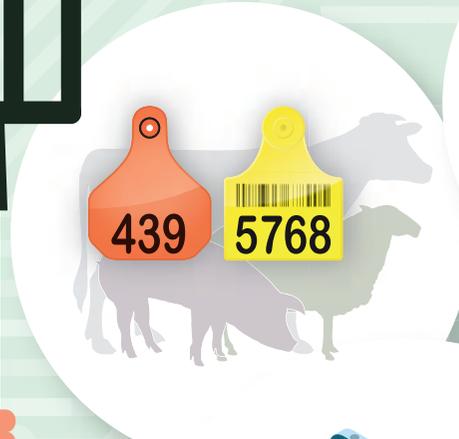
## Farm worker

Fast, reliable connectivity can transform farms and indeed the wider agricultural sector. Connectivity is facilitating the adoption of modern business practices, underpinning Smart farms, and ultimately driving our farms of the future. Fast, reliable connectivity allows farmers to carry out tasks such as updating their records via an online platform,

ordering livestock tags, applying for grant funding, checking their online dairy statements, paying their employees or bills, watching farming webinars and keeping up with local, national and international agricultural sector developments. The farmer can ensure that they are complying with relevant policies and procedures, records are online and easier to access. Livestock markets give regular updates on the weekly sales and have begun to

stream videos on their online platforms.

Connectivity also facilitates Smart farming and the application of Internet of Things technologies which is proven to make farming more efficient and effective which in turn drives down costs and increases productivity. This is achieved through the monitoring of assets and products, collecting and analysis of data which informs crucial decision making.



# Café Owner

Digital Connectivity allows cafés to advertise their products and services. It ensures they can catch up with the latest news and policies regarding food hygiene, attend webinars and use live streaming to showcase the daily specials. Café's can use videos, collages, images, and various types of technology to advertise their business and attract higher footfall. Connectivity facilitates the adoption of modern

business practices to ensure they are operating in the most efficient and effective manner possible.

Digital connectivity is not only important for the café owners but has also become crucial for the customers who come to the café. Customers need digital connectivity to contact friends and families or to work remotely. Fast reliable connectivity has become an

expected service for many customers.

During the Covid19 pandemic connectivity and Digital services have allowed some Cafes to diversify, to change what they offer and how they offer it. Some have focused entirely on take away, promoting that service via Digital communications channels and Social Media. This has provided a much-needed income stream during extremely difficult times and potentially an addition income stream in the future.



# Shop owner

Like the Café, fast reliable connectivity is critical to running a shop. Shop owners can advertise their products to a much wider audience. By exploiting social media, shops can promote their business via free, user friendly and popular platforms with significant reach. By using filters, the business can target their audience specifically and use the chosen platforms to do so. The business can sell their goods via the web, monitor stock levels, and take online

payments. With the use of digital connectivity, contactless payments and card payments can be taken in store or online giving every customer choice. Using digital connectivity, the shop can send out emails with promotional materials and any news or information they would like to share with customers.

As with other examples, connectivity for the Shop is

facilitating the adoption of modern business practices to ensure they are operating in the most efficient and effective manner possible.

During the Covid19 pandemic connectivity and Digital services have allowed some shops to diversify, to change what they offer and how they offer it. Some have focused on expanding their reach by offering a home delivery service. The service is promoted via Digital channels and orders taken via Digital channels. This has provided a much-needed alternative service for many customers and a welcome income stream for many during extremely difficult times. It potentially offers an additional income stream in the future.



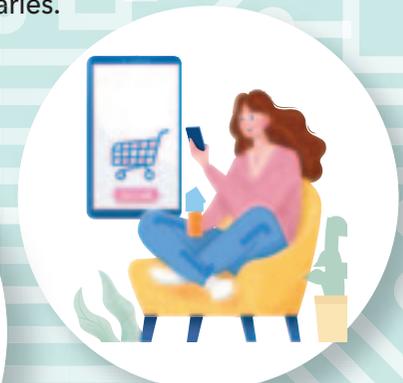
# Teacher & Student

Having fast reliable digital connectivity is vitally important for teachers both when working within our schools and from home. A significant part of all learning across Wales is now delivered and/or facilitated via the Wales Digital learning platform called HWB. Fast reliable access to HWB and other Digital resources allows teachers to mark online, attend online courses, email and discuss with colleagues, keep in touch with their students, deliver virtual classrooms, keep up to date with the current guidelines and policies and more. The future of

teaching, exactly when, where, and how it will take place is currently unknown however there is little doubt that fast and reliable connectivity will be critical. A blended approach to learning is likely with Digital delivery forming at least part of that delivery model and underpinning most, if not all of it.

Digital connectivity is an equally important resource for students of all ages, from primary school to University and beyond. Students and learners can view lectures and lessons, access distance learning, contact families and friends,

check online banking, check their household bills, carry out online shopping, apply for jobs, research, and access online libraries.



# Elderly resident

Digital connectivity can be critically important for elderly residents. It can play a key role in helping people to live independent lives in their own homes. It can also ensure communication with family and friends via online platforms or video capable devices, helping to address loneliness and keeping people socially active. Connectivity allows the resident to search online for anything and everything including access to entertainment, banking, problem solving and more.

Perhaps the most important benefit that fast reliable connectivity can bring to elderly residents is health care and assisted living technologies. Connectivity at home provides access to video appointments with doctors, physiotherapists etc. Connectivity also facilitates Smart solutions and the application of Internet of Things technologies which is proven to help people live more independent lives, for longer, in their

own homes. This is achieved through the deployment of a variety of sensors and communications devices which allow the resident to access help and support or alerts family and health services if something is wrong ensuring early intervention.

