The SDG Accord

The University and College Sector's Collective Response to the Global Goals

Empowering Through Sustainability: ICT Students Recommission Redundant PCs for Community Good

Bradford College

SDG focus

☒ Goal 4 - Quality education
☒ Goal 12 – Responsible Consumtpion and Production

What did you do?

Sustainability is no longer a trend—it is a necessity. In today's ever-evolving digital world, technology plays a crucial role not only in industry but also in shaping education and community development. Recognising this, Level 1 ICT learners at **Bradford College** have engaged in a practical, impactful project that combines learning, environmental responsibility, and community service. Through a sustainability and recommissioning initiative, these students transformed redundant college computers into functional devices ready to support local charitable causes.

This report reflects on the significance of the project, the processes involved, the roles taken by students—particularly **Jack Littlewood**, and **Harvey Garside** who led the initiative—and the wider implications on the environment, education, and the local community. The first set of refurbished machines has already been donated to **Local Services 2 You Limited**, a dedicated organisation that works with vulnerable groups, including older adults, to promote independence and social inclusion.

What were the benefits and outcomes?

1) Technical Tasks and Learning Outcomes

a) Identifying and Preparing Redundant Machines

The first task involved **identifying redundant PCs**. Students had to assess the systems available, determine if they were repairable, and record their specifications. This included examining the **hardware components** such as the hard drive, RAM, processor type, and overall condition.

Learning outcome: Students gained first-hand experience with **computer hardware diagnostics**, developing confidence in identifying usable systems and understanding which components are critical to system functionality.

b) Data Removal and Disk Formatting

The next step was critical—**secure data removal**. As the machines previously belonged to the college, it was vital to ensure that no sensitive or personal data remained on them. Under guidance, students used disk wiping tools to **clean drives according to data protection policies**, ensuring GDPR compliance.

Learning outcome: Students learned the importance of **data privacy**, gained experience with disk management tools, and understood the legal and ethical dimensions of working with used equipment.

c) Operating System Installation and Configuration

Once the machines were clean, learners prepared them for **reuse** by installing an open-source operating system. For this project, they used **Linux distributions** due to their free licensing, stability, and light hardware requirements. The installation process included **booting from USBs**, **partitioning drives**, and **configuring user settings**.

Learning outcome: This step allowed students to practice **software installation, troubleshooting**, and **system configuration**—key skills for any IT technician. They also learned how to optimize performance on older machines.

2) Leadership and Collaboration: Jack and Harvey's Role

The project was not only a technical challenge but also an exercise in leadership, communication, and teamwork. **Jack and Harvey** took on key responsibilities, leading the team and ensuring a structured, smooth workflow.

a) Project Coordination

Jack and Harvey acted as project leads, **delegating tasks**, tracking progress, and maintaining logs of each machine's status. They ensured the correct procedures were followed, from disk wiping to the final system test.

Leadership skill: They demonstrated the ability to **organize team efforts**, handle responsibilities, and communicate clearly—skills that are essential in any workplace setting.

b) Peer Support and Mentorship

As others encountered challenges—such as system boot errors, formatting issues, or driver problems—Jack and Harvey provided support, explained solutions, and helped peers work through the steps rather than taking over.

Behavioral development: This showed maturity, patience, and the ability to **mentor peers**, reinforcing a positive learning culture within the group.

c) Quality Assurance

They were also involved in **final checks** to ensure that each PC met the required standard before being donated. This involved testing USB ports, ensuring the OS was responsive, and that basic applications (web browsers, office tools) were functional.

Learning takeaway: They understood the importance of **quality assurance**, consistency, and delivering a product that met the needs of real users.

3) Community Impact: Supporting Local Services 2 You Limited

The first batch of recommissioned computers was donated to **Local Services 2 You Limited**, a community-focused organisation that supports older and vulnerable people. These systems will help with **digital inclusion**, providing access to online resources, communication tools, and information services.

Real-world Impact

- **Digital Inclusion for the Over-50s**: Many older individuals face barriers in accessing technology. These computers offer opportunities to learn digital skills, combat loneliness, and improve independence.
- **Support for Community Projects**: Charities often lack funds for technology. This project bridges the gap, enabling them to run programs, offer training, and manage communications more efficiently.
- **Positive PR for the College**: Bradford College is seen as a forward-thinking institution that gives back to the community while instilling real skills in its students.

4) Environmental Benefits: Reducing E-Waste

Every recommissioned PC means one less system sent to landfill. This has significant environmental benefits:

- **Reduced Toxic Waste**: Electronic devices contain materials like lead and mercury which are harmful if not disposed of properly.
- **Resource Conservation**: Reusing systems reduces demand for new electronics, saving energy and raw materials.
- **Promoting a Circular Economy**: This project shows that with creativity and technical skills, old equipment can have new life.

5) Student Reflections and Feedback

Throughout the project, learners reflected on what they had learned, not just technically, but personally. Below are some of the common themes that emerged in student feedback:

- "I feel more confident now working with real machines instead of just theory."
- "Helping others with technology has made me realise the value of what we're learning."
- "It felt good to know we were doing something that really matters for people outside the classroom."
- "Jack and Harvey were great leaders. They explained things well and didn't make you feel bad if you got stuck."

These reflections demonstrate how practical, project-based learning enhances **engagement, retention, and real-world awareness** among students.

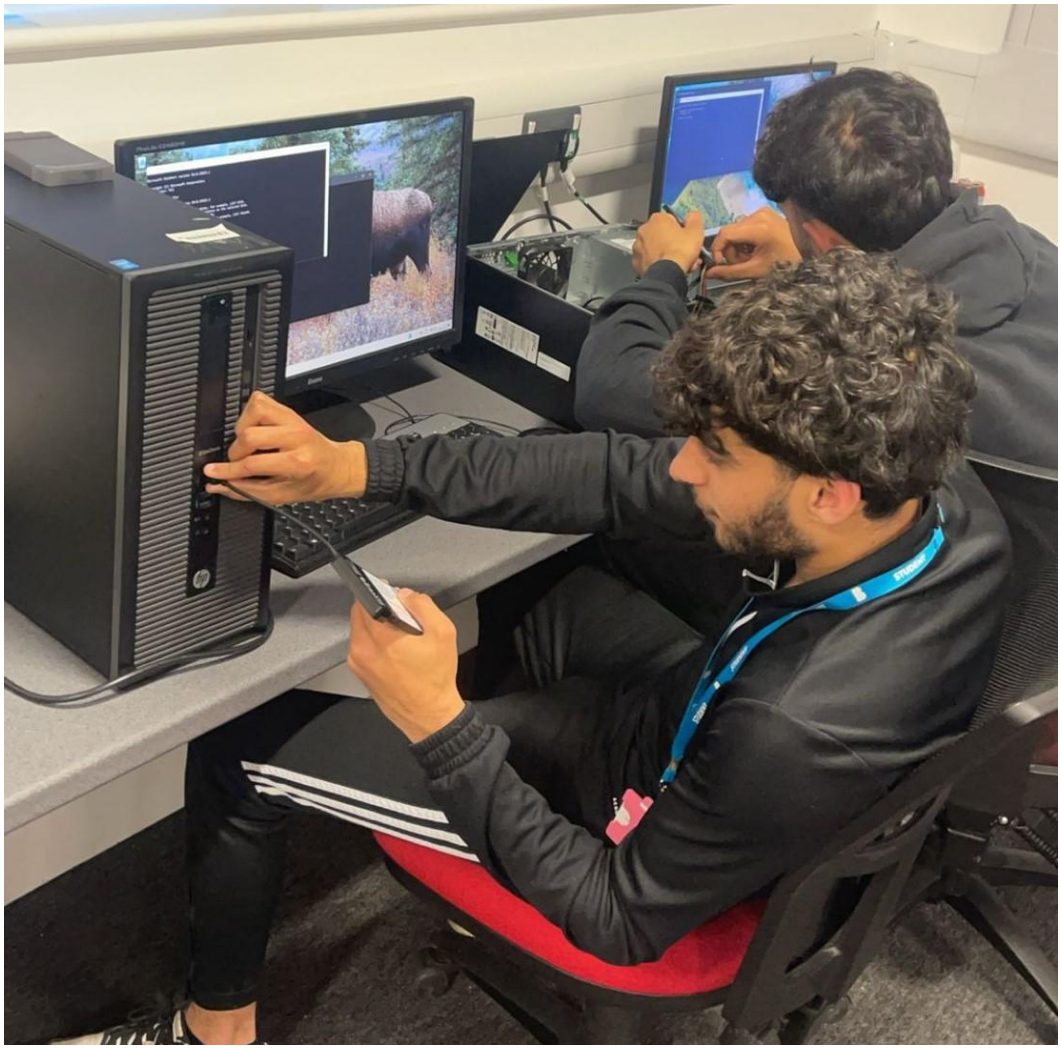

Image: Two learners recommissioning obsolete IT equipment so it can be donated

What barriers or challenges did you encounter in embedding sustainability into your learning and teaching practice and how did you overcome them?

No real-world project comes without its hurdles. Students faced several issues, including:

- **Missing Drivers:** Some hardware didn't initially work with Linux, requiring further research and downloads.
- **Formatting Failures:** A few drives failed to wipe properly and had to be replaced or reconfigured.
- **Time Constraints:** Balancing the project with other coursework required careful planning and prioritisation.

These challenges became valuable learning experiences, teaching resilience, problem-solving, and adaptability.

What are your conclusions and recommendations for others?

Given the success of this project, there is potential to expand it further:

- **Wider Donation Scheme**: Partnering with other charities, schools, or care homes.
- **Advanced Technical Tasks**: Including data recovery, part replacement, or dual-boot systems.
- **Student-Led Training Workshops**: Teaching basic IT skills to the community using these machines.

This kind of project can even lead to **internship or volunteering opportunities**, as students gain real-world, CV-ready experience.

The sustainability and recommissioning project at **Bradford College** has been an inspiring example of how education can directly serve the community. Through this initiative, **Level 1 ICT learners** applied their technical knowledge, developed soft skills, and contributed to both environmental protection and social good.

Jack and Harvey stood out as emerging leaders, guiding their peers and ensuring high standards throughout the project. Their involvement showcases the potential within vocational learning when students are given responsibility, purpose, and the chance to make a difference.

More than just a technical task, this project empowered students with the message that **IT can change lives—not just their own, but those of others in the community.**