BCS Member in the Community Stories to close the digital divide

By Freddie Quek, Chair of BCS Digital Divide Specialist Group

12th September 2024 marks the second End Digital Poverty Day, a nationwide initiative dedicated to raising awareness about the pressing issue of digital poverty and divide in the UK. Established by the Digital Poverty Alliance, its mission is to eliminate digital poverty by 2030. The BCS and DPA has joined forces by signing a Memorandum of Understanding last year.

The issue of digital poverty has been around for a while. Nearly 20% of children do not have adequate access to get an online for learning or doing their schoolwork. 1.7m households do not have internet access, and 1.4m households only rely on mobile data to get online. At the other end of the spectrum, 30% of adults over 65 years old do not use the internet or have digital devices and skills to access basic needs.

Technology For Good
The BCS, Chartered Institute for IT has over 70,000 members in 150 countries, whose purpose is to "Make IT Good for Society" identified closing the digital divide as one of its strategic priorities. The BCS Digital Divide Specialist Group was established in 2022 to "Leave no one digitally behind". Working closely with the Digital Poverty Alliance and the #Joiningthedots community of 15 tech leaders communities in the UK, the tech sector is playing a role to socialise what technology can do to help address digital inclusion to close the digital divide.

BCS Member in the Community
The idea of "BCS Member in the Community" came out of last year's BCS-DPA Strategy Day. Every IT and digital professionals have the superpower to use digital technologies for work, life and entertainment, and yet there are many people in society from the young to the elderly who are unable to for various reasons. What if we are able to enable each individual BCS member to do something in their own local communities, be part of other initiatives out there, or lead initiatives?

Here are some stories to amplify and inspire BCS and non BCS members that we can all do something individually or collectively to help close the digital divide.

The first three stories are pledges made to the Digital Poverty Alliance's National Delivery Plan last year, followed by stories of BCS members doing amazing work in their local communities across the UK.

Contents

Pledge 1 Digital Helping Hands – Tech Support Pilot

Initiative

The **Digital Helping Hands** initiative is championed by #Joiningthedots, BCS and WaveLength, with two major technology partners Unisys and ServiceNow. This service aims to assist those outside work who have varying levels of digital competency and confidence by supporting their experiential learning of using digital tools and services for personal life management and entertainment. Beneficiaries can seek assistance from the helpdesk directly or supported by intermediaries.

Problem

The concept of an IT Helpdesk has no such equivalent outside work for people. Some of the key differences from work users include individuals with varying levels of digital literacy and confidence, and the need for additional support from intermediaries. Some of the complexities of supporting these users include dealing with a variety of technology and the type and age of devices.

Solution

The initiative's first pilot partner is Anawim, a charity supporting vulnerable women, launched in support of #EndDigitalPoverty Day on 12 September 2024. It aims to join a number of dots - devices, data connectivity, tech support and confidence. The Digital Helping Hands support categories include: **Operating System** issues with digital device operating systems); **Connectivity** (data access and Wi-Fi issues); **Apps** (problems with digital applications); **Online Security** (cybersecurity practices); **Education** (understanding digital tools); **Skills** (developing digital competencies).

The project team which meets weekly, combines expertise from corporate tech support from Unisys, with insights from experts like BCS member, Professor Leela Damodaran, who studies the needs of older people, and Tim Leech, CEO of WaveLength, a charity that supports those dealing with loneliness.

Goal

The initiative's goal is to learn how to support people outside work and scale this support across the UK and globally.

Pledge 2 Digital Inclusive Design Educational Tool
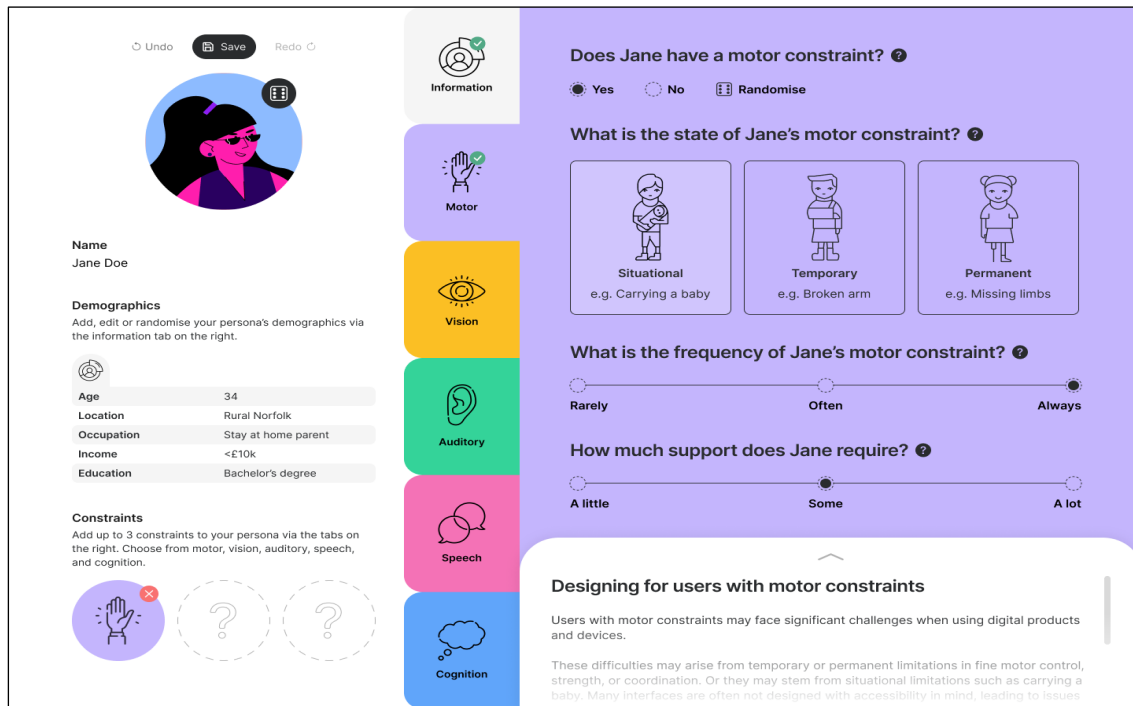
Initiative

BCS members David Smith CITP MBCS and Freddie Quek FBCS, along with Kate Harrison, Rich Thurston, Elena Dumitrana, Nicola Duckett embarked on a groundbreaking initiative to create a *National Catalogue of Digital Personas* that everyone could contribute to and utilise.

Problem

Today's use of digital personas assume if it is good enough for 80%, it is representative of the entire population. They also assume that users are able bodied and have digital skills.

The team's initial research, which included insights from LOTI, Lloyds Bank and Cambridge University, led them to identify 13 additional dimensions to be considered for digital personas. This complexity proved to be a challenge. By consulting with experts, including older adults, disabled individuals, and neurodiverse individuals, they realised that these digital personas needed to be dynamic, evolving with users' changing needs—whether temporary, permanent, or situational. This revelation inspired the creation of a comprehensive matrix and a decision tree to refine their approach.

Solution

The result is an innovative **Digital Inclusive Design Educational Tool** aimed at designers and developers, guiding them in creating digital solutions that consider both the physical and cognitive constraints of all users. At the core of this tool is a two-part approach; the first part focuses on universal design principles that apply to 80% of users, while the second part addresses adaptive design, specifically catering to the remaining 20% who might be digitally excluded due to various constraints.

Goal

The initiative's goal is to become the go-to educational tool for digital solution designers and developers worldwide so that it has the greatest impact for all users of digital products and solutions.

Pledge 3 Higher Education Digital Inclusion Manifesto and Toolkit

DIGITAL INCLUSION TOOLKIT

The following can be used for quick self-assessment, reference for developing institutional strategies and policies, and monitoring progress against the three core principles:

ACCESSIBILITY

Currently my organisation	Responsible Teams	Yes	No	Maybe	N/A
Conducts regular accessibility audits and testing of the university website involving people with lived experience of digital exclusion as appropriate					
Ensures that the website complies with international accessibility standards, such as WCAG (Web Content Accessibility Guidelines).					
Maintains a list of recommended accessible software and technology tools.					
Provides access to digital hardware and services to allow those struggling with digital poverty to access their materials					
Provides an accessible alternative for multimedia content, such as transcripts for videos and audio descriptions.					
Ensures there is high quality training and support available to staff and students for all educational software and applications used within the organisation					
Provides training, guidelines and resources for staff on creating accessible course materials.					
Ensures that the LMS is accessible to students with disabilities, including those using screen readers.					
Promotes the use of open educational resources (OER) and accessible e-books to reduce barriers related to textbook costs.					
Staff are conscious of the challenges faced by students and wider communities experiencing digital poverty and considers this when designing modules/courses and other digital initiatives					
Students with disabilities have timely access to accessible versions of required course materials.					
Students have access to course content in preparation for their instructor led session					
Staff use accessible formats for course materials and other external engagement activity, including digital documents, presentations, and multimedia content.					
Staff design online assessments and tests with accessibility features in mind, allowing students with disabilities to participate fully.					
Staff provide alternative assessment methods for students who require accommodations.					

Initiative

At Digital Universities Week 2023 organised by Times Higher Education (THE), a number of universities including University of Leeds, University of Liverpool, University of Bristol, and University of Staffordshire, together with the Digital Poverty Alliance (DPA) and British Computer Society (BCS) and championed by THE, started a call to action to create a higher education sector-wide **Digital Inclusion Strategy** to address digital poverty

Problem

Digital poverty affects both students and staff which prevents the development of transferable information and communications technology (ICT) skills and digital literacy. The HE Commission's Report on Digitally Enhanced Blended Learning launched in 2024 found that

students are still struggling to access appropriate online course materials or lack access to suitable devices needed for learning.

Solution

HEIs should participate in the wider ecosystem to learn and solve common problems together. A small working group led by Professors Raheel Nawaz and Simeon Yates and coordinated by Freddie Quek FBCS and Charlotte Coles, created a **Digital Inclusion Manifesto and Toolkit**. The manifesto identified three core principles that should underpin institutional strategies for digital inclusion: Accessibility; Equality, Diversity and Inclusion; and Empowerment. Professor Nawaz created and rolled out the Digital Inclusion Toolkit at his university which he announced at THE Campus Live UK&IE 2023 in Liverpool. Other universities such as De Montford University are following suit.

Goal

The initiative's goal is to establish a global Higher Education Digital Inclusion Network comprising higher education institutions, organisations and stakeholders linked with digital education to support digital inclusion activities in higher education across the world.

Story 1 Digital Inclusion Programmes in North East and North Cumbria

Initiative

BCS Fellow Andy Wake founded **Town and Community** as a not-for-profit organisation in Durham in May 2021 to provide practical digital inclusion for everyone, helping local businesses and organisations in North East England to donate their obsolete digital devices and computer equipment to local beneficiaries through sustainable, scalable, and repeatable education, health, and community programmes.

Problem

North East England is the most digitally excluded region in the UK. Education and health services are increasingly being delivered digitally, but not everyone has access to services due to lack of computer equipment, connectivity, knowhow, and support.

Solution

Town and Community embarked on its first programme **Digital Inclusion STEM Education Programme 1.0** in 2022 to address the lack of computers to deliver STEM and computer education in primary and secondary schools in the region. It has contracted with local businesses to dispose of and repurpose their digital devices and computer equipment to provide a safe and secure IT Asset Disposal service. This programme has successfully seen over 3500 computers donated to schools in the North East Region.

The second programme **Digital Inclusion Health Programme 1.0** is working with the NHS and the Health Innovation Network in North East & North Cumbria to repurpose NHS digital devices for health and care pathways. Its first pilot project is an award-winning digital inclusion initiative called **Children and Young People in the North East and North Cumbria Diabetes Network Accessing Digital Devices Project**, providing over 400 children with type 1 diabetes with repurposed smartphones and laptops to manage their condition.

Goal

Town and Community's goal is to build stronger towns and communities through establishing accessible digital inclusion programmes in education, health, arts and sports.