**Frontline Accessibility**: Building ATech Awareness and Confidence Among Public Service Professionals

A report from the Assistive and Accessible Technology Policy Lab, authored by Geena Vabulas

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# Executive Summary

## The opportunity

Innovation in consumer technology has transformed our ability to make the world truly accessible for disabled people. In the last twenty years: cloud computing has enabled a revolution in flexible working; smartphones now include features like dictation which once cost hundreds of pounds in software; and specialised tools such as eye-control have graduated from the realm of sci-fi speculation to real-world tech.

For millions of disabled people, assistive and accessible technology (ATech) is already life changing. But far too many lack access to this revolution – for those who are left out, the pervasiveness of digital technology only makes them more marginalised.

## The barriers

The barriers to using ATech are many, but one towers highest: simple lack of awareness. Time and again we have heard from disabled people and the professionals who support them who say, as one Work Coach put it recently: “I was absolutely astounded by the different tools available right at my fingertips that I never knew were there!”.[[1]](#footnote-2) These are success stories, but they are bitter-sweet when we reflect that people have struggled with barriers for years while the tools to help them did exist – sometimes on the smartphone that’s been in their pocket all along. In other cases, a disabled person might suspect that using ATech could help but they don’t know how to get started using it – and those around them lack the confidence to help.

## Taking action

### Empowering frontliners

To raise awareness among disabled people and their support networks, we should deliver fundamentals-level ATech training for frontline professionals in public services. Teachers, job coaches, care workers, and others work directly with the public every day: this makes them uniquely well placed to share awareness of ATech with disabled people. It can be as simple as frontliners raising the topic, sharing tips and tricks, or seeking out further advice from more specialised services. And when disabled people can talk about ATech with the people in their support networks, they are empowered to begin exploring and using this technology. What’s more, many frontliners are disabled themselves – and training can inspire them to use ATech in their own work.

### A proven model

ATech training has a proven positive impact – recorded by professionals themselves. Frontliners who have accessed training consistently report that they have learned about new tools and features which they are excited to share with clients and colleagues. One professional in a care setting in Leeds said:

“The training has been fantastic I wasn’t sure about the tablets at first but now I know how to use them and can see the difference it makes interacting with the residents I feel so much more confident and they love them!”[[2]](#footnote-3)

For this report, we reviewed over a dozen ATech awareness training offers around the UK to find out what characteristics make training most impactful. We found that the best training sparks enthusiasm and generates sustained awareness and confidence. This is achieved when training:

1. taps into frontliners’ existing motivation to improve outcomes for their clients
2. is validated by senior leadership
3. is quick and easy to engage with
4. rewards achievement with micro accreditations
5. offers specific and actionable information
6. is accompanied by quality resources, and
7. provides an entry point into a community of peers, where people can share queries, tips, and ideas.

### Scaling what works

The tech and disability sector is already providing ATech fundamentals training to frontliners across education, health and care, and employment support. But this isn’t reaching enough people. Perhaps the largest single programme in the last 12 months was the DWP/Microsoft partnership to train 23,000 Work Coaches in Job Centres – yet, to really transform awareness, we need to reach ten times as many frontliners each year. In this case, funding is not the only issue: the use of online platforms means the marginal cost of expanding the offer is comparatively low, but the sector faces other barriers to reaching scale. First, organisations that offer training find it difficult to reach senior public service leaders, whose endorsement is critical to the uptake and success of training. Second, there is an issue of fragmentation, where multiple training offers sometimes re-create resources that already exist elsewhere. This is where the government can have an outsized impact by leveraging its ability to align key players around a shared mission.

## Conclusions and Recommendations

Assistive and accessible technology (ATech) has the potential to transform the lives of disabled people across the country, but many are still not aware of the tools and features that can help them. To tackle this, we should focus on building awareness among frontline professions in publics services. The impact of ATech fundamentals training for these professionals is multiplied across the population as frontliners share awareness with customers and clients – unlocking the benefits of this technology for millions. Policymakers must join with the sector to radically scale delivery of ATech fundamentals training – matching the scale of the government’s ambition “to help make the UK the most accessible place in the world to live and work with technology”.[[3]](#footnote-4)

**Recommendation One:** We propose a partnership between government, the tech and disability sectors, and public sector leaders, to deliver training to 250,000 frontliners by the end of 2025.

As many leading businesses have found, it is only by giving accessibility a place at the senior level that real change is made. For example, Microsoft’s Chief Accessibility Officer (CAO), Jenny Lay-Flurrie, has put accessibility at the heart of the company’s products and workplace culture.[[4]](#footnote-5) Canada has recently taken the same step, with their Minister of Disability Inclusion appointing Stephanie Cadieux as its first CAO last May.[[5]](#footnote-6)

**Recommendation Two:** The partnership to mainstream ATech awareness should be led by a senior champion within government: we propose the appointment of a UK Chief Accessibility Officer – similar to a Commissioner role – to drive this agenda.

# The need to increase access to ATech

## What is ATech?

Assistive and accessible technology (ATech) refers to digital tools that disabled people use to break down barriers. As such, ATech encompasses both:

1. *assistive technology* products that are designed primarily for disabled users, such as augmentative and alternative communication devices, screen reader software, or an adaptive games controller.[[6]](#footnote-7)
2. *accessible technology* products that are designed to work for all tech users, by taking accessibility needs into account: for example, a website that can be navigated with a screen reader, or a smartphone operating system that includes accessibility features such as dictation. In addition, any technology product becomes an accessibility tool whenever disabled people use them as such, e.g. when someone opts to join a meeting via video call to manage fatigue or uses a Generative AI tool to simplify the language in a document.

## ATech is essential

*“We live in such a digital age where everything is online, so to have the skills and to be able to use it can open up so many doors and avenues, so people we support can achieve so much more, have more person-centred support and greater independence.” - Darren, SeeAbility support worker*[[7]](#footnote-8)

 *“Assistive technology has saved my life and made me who I am today. Life has become manageable and I would recommend it to everyone who struggles.” - Kaki, ATech user*[[8]](#footnote-9)

ATech has a long track record of use by disabled people to enhance independence, and enable inclusion and success, in education, work, entertainment or any aspect of life.[[9]](#footnote-10) In addition, the use of digital tools is becoming ever closer to mandatory for full participation in our society.[[10]](#footnote-11) Government is embarking on digitisation of services “on a scale never seen before”[[11]](#footnote-12) and this is matched by transformations in local services,[[12]](#footnote-13) the private sector[[13]](#footnote-14) and employment.[[14]](#footnote-15) However, digitising services can *create* barriers for those who are unable to use ATech: imagine trying to use the National Careers Service as a job seeker with a visual impairment but no screen reading ATech. The 2022 Lloyd’s Digital Consumer Index asked people who hadn’t been online in the last three months which organisations they found it difficult to interact with, without using the Internet: the top answers were NHS/Healthcare, followed by council or local government services, financial services, and utility providers.[[15]](#footnote-16)

# Barriers to access

The barriers to the use of ATech are many but can be grouped into three main categories: awareness, availability, and support. That is: being aware of the tech that can help,[[16]](#footnote-17) having the right tech available,[[17]](#footnote-18) and having the support to use it.[[18]](#footnote-19)

## Focusing on Awareness

This report focuses on the challenge of awareness because we have seen a consistent pattern in the testimony of disabled people who now benefit from ATech: people’s journey toward using ATech begins when they learn about how technology could benefit them to break down barriers. One JobCentre client described their anxietyabout going for jobs that required reading and said, “It was on my mind constantly.I just didn’t know anything about assistive technology. I’ve had my disability my whole life and if I’d known the computer could help me that would have been amazing.”[[19]](#footnote-20) Without first finding out about ATech, people cannot start to explore which technology is right for them, how to get hold of it, and what support they might need around the tech: awareness is a necessary first step.

Some people will be able to start using ATech as soon as they learn about it – because it was already available to them, and they require only minimal support to start using it. All the main tech platforms include accessibility features in their products; many specialist ATech developers offer some products for free (e.g. the Read&Write browser plug-in and the BeMyEyes app); and some people will have access to ATech that has been purchased by their school, workplace, or local library etc., but don’t know it’s there for them to use.[[20]](#footnote-21)

One person who completed an ATech awareness training said, “I finally at age 53 have tools I can use to read properly”, and cited learning about features that were already on their work computer such as text-to-speech.[[21]](#footnote-22) We should emphasise that in most cases, awareness will be just the start of a journey, but the impact of gaining awareness is particularly powerful in cases where it immediately unlocks the ability to start using ATech.

Finally, awareness is so foundational that, until we successfully mainstream awareness of ATech, it is difficult to determine the level of need for ATech across the UK. For example, someone with arthritis who finds typing painful won’t report that they need a rubberised keyboard or a quieter workspace to use voice dictation if they don’t know these products and adjustments exist. The same issue arises in education settings: for example, a learner with colour blindness might benefit from their teacher changing the settings on the interactive whiteboard but, if the teacher is unaware of such settings, they may report that they don’t find tech important for teaching children with SEND. As many have remarked with regard to ATech: people don’t know what they don’t know. We need to build broad-based awareness of ATech in part so we can discover the true scale of need.

## Data on awareness

*“[W]e had a kind of school partnership meeting last week and I took the [reader programme] and showed everyone and not one of the schools in the LA [Local Authorly] were using it and didn't know that it was available.” - Inclusion lead and SENCO, Primary School*[[22]](#footnote-23)

The data on awareness of ATech in the UK remains incomplete. The Lloyds Bank ‘2022 Consumer Digital Index’ found that 90% of adults can “use the different settings on a device to make it easier to use (e.g. adjust font, volume settings, brightness of screen, voice)”.[[23]](#footnote-24) This is an encouraging statistic – even as Lloyds also note that disabled people are 2.5 times more likely to lack these kinds of ‘Foundation Level’ digital skills. But this data on ‘Foundation Level’ digital skills doesn’t tell us enough about people’s awareness of ATech. The ability to adjust the volume on a device is important for accessibility but it is also so basic a feature that we cannot assume that those who know how to do this also know about the other accessibility features listed in the question (such as having text read out loud). Another possible source of data on awareness are surveys of the prevalence of ATech use.[[24]](#footnote-25) However, evidence of usage could undercount awareness, because some may know about tech but not use it, and it’s unclear how to adjust for this undercounting.

The best evidence on ATech awareness comes from the charities and sector groups who are seeking to improve access to ATech, among whom there is a strong consensus that low levels of awareness remain a barrier.[[25]](#footnote-26) But it would be useful to have quantitative data in this area, both to give us a baseline from which to improve and more detail about where awareness is most lacking.[[26]](#footnote-27)

# Fundamentals-Level ATech Training for Frontline Professionals

*“I can immediately see the benefits for this, for myself as a work coach and in my own life. I have arthritis mobility issues in most of my major limbs and sometimes find typing hard. I now have the knowledge to help myself and help others by putting these tools into practice.” – Feedback from Work Coach after training.*[[27]](#footnote-28)

Frontline professionals interact directly with the users of a service, whether those users are students, customers, clients, or residents. Frontliners often comprise the majority of an organisation’s workforce and are key to delivering the aims of their employer (e.g. teachers and assistants in schools; work coaches in Jobcentres). When these professionals receive basic or ‘fundamentals-level’ ATech training this enables them to better support clients,and it improves accessibility for frontliners themselves.

## The value to clients

*“The training has been fantastic I wasn’t sure about the tablets at first but now I know how to use them and can see the difference it makes interacting with the residents I feel so much more confident and they love them!” – Frontliner feedback from 100% Digital Leeds*

*“It’s marvellous, it brings me so much joy, I miss seeing my family and this just makes me smile. I like doing the crosswords on the iPads too, it keeps the brain going!” – Resident Feedback from 100% Digital Leeds*[[28]](#footnote-29)

Frontline professionals, by virtue of their direct contact with the public, have an important opportunity to share awareness of ATech with clients, learners and patients. We also know that frontline professionals must be aware of ATech in order to make their services or settings supportive environment for using ATech.[[29]](#footnote-30) In 2021, Cranfield University, Ace Centre, and TechAbility surveyed staff at special schools on the effective use of ATech, with 96% reporting that staff knowledge of what ATech is available was also a barrier to supporting learners’ use of the technology.[[30]](#footnote-31) As the CEO of Ace Centre, Anna Reeves told us:

“ATech equipment abandonment is sadly and wastefully all too common when the right support is not in place. The game changer in outcomes for people who need and use ATech is when the professionals who support them have prior knowledge of what is possible and believe that the use of ATech makes a real and significant difference*.*”[[31]](#footnote-32)

Frontliners do not need to be experts to support an individual with their ATech use. Those who have received fundamentals-level ATech training report being able to:

* Identify more individuals who may benefit from ATech.
* Immediately remove barriers by raising awareness of accessibility features available in the technology individuals are already using, such as on their smartphones and in mainstream software packages.
* Signpost to, and support the use of, more specialist technologies.
* Be more creative and confident when it comes to supporting their clients and learners to take advantage of digital tools.[[32]](#footnote-33)

As we can see from above, fundamentals ATech level training of frontline professionals provides both quick wins and encourages long-term ATech progress for the disabled people they are supporting.

It is also likely that some professionals who begin working with ATech will seek to develop their skills further, including to the specialist level. See the Appendix to this report on the need for specialist-level ATech training.

## The value to frontliners

*“Very informative, on a personal basis I had no idea there were so many functions in the settings re: accessibility. I can now read the text more easily having enlarged the text!! I will be mindful to pass this information if needed to people I visit.” – Feedback from training[[33]](#footnote-34)*

Some frontliners have low digital confidence and are not comfortable sharing this with their employers.[[34]](#footnote-35) A high-quality ATech fundamentals training offer can reduce fears about tech more broadly and increase the confidence of frontline professionals.[[35]](#footnote-36) In addition, when this training is offered to all frontliners in a setting, it removes the need for individuals to identify themselves as having gaps in their knowledge.

Most significantly, we have seen reports from disabled frontline professionals who, as a direct result of ATech fundamentals training, have started taking advantage of this technology in their personal and professional lives. We gave the example above of the person who said, “I finally at age 53 have tools I can use to read properly”, and this person is themselves a frontliner – a Work Coach. Another Work Coach who undertook the same training described how she would share these tools with her teenage daughter who is “potentially dyslexic” and was struggling in school due to a lack of diagnosis and support.[[36]](#footnote-37)

Finally, some disabled professionals have told us how, when a whole team received ATech awareness training, this can have a cultural impact, making the workplace more inclusive. One frontliner, who has a visual impairment said:

*“*Often, one can feel very isolated being the only AT user in a team indeed, an office. However, the training has given me much confidence that accessibility knowledge and guidance has been shared with my colleagues.”[[37]](#footnote-38)

As organisations struggle with high turnover and unfilled positions, it vital that staff do not feel pushed out of roles due to a lack of digital skills and confidence, or a failure to create an inclusive workplace culture.

# A cross-sector approach

It will be helpful to identify which frontline professionals are best positioned to take advantage of ATech training – so that efforts to scale the delivery of such training can begin by targeting these key groups. This does not mean choosing a single sector to focus on: rather, we should look across sectors to find those frontline roles that involve contact with a large number of people who could benefit from ATech, and roles that allow one to quickly implement an element of ATech into working practice. There are a number of roles within education, care and allied health, and employment support that are well-placed to have impact in terms of supporting the use of ATech. Furthermore, these groups of professionals are all involved in delivering public services (even where they do not work directly for a public institution) and so their employers are likely to be responsive to government initiatives that are aimed at improving service delivery.

## Education

*“Sometimes with IT, you don’t want to ask as you don’t want to be the only one” – SENCO, Primary School*.[[38]](#footnote-39)

*“Training all staff (teaching, support, job coaches, office and site) to utilise accessibility features in everyday technology allows for consistent modelling of its use, and engenders an attitude of normality when using ATech” – Elizabeth Wilkins, Digital Lead, The Oaks Specialist College*.[[39]](#footnote-40)

Staff in mainstream and specialist schools and colleges, such as teachers, teaching assistants, learning support assistants, and SENCOs, play an important role helping students access the curriculum and demonstrate their skills and knowledge.  They provide hands-on support and are likely to work directly with those students who stand to benefit the most from ATech. Digital tools are increasingly being used in education settings, and we know that without sufficiently trained staff, we risk denying our disabled and neurodivergent students equitable access to learning resources.[[40]](#footnote-41)

Unfortunately, we also know that many learners are missing out on ATech. For example, the DfE EdTech Survey 2020-21 found that many schools still don’t use any ATech. For secondary schools only 73% report using any assistive technologies and only 51% use any accessibility features; for primary schools the figures are lower, with 52% using assistive technologies and 32% using accessibility features.[[41]](#footnote-42) Raising ATech awareness and confidence in education staff is key to ensuring our disabled and neurodivergent learners have the same opportunities to thrive in education as anyone else. In addition, since use of ATech is a key employment and independent living skill for many, enabling the use of ATech in education is key to preparing learners for adulthood.[[42]](#footnote-43)

## Health and Care

*“Being able to demonstrate assistive technology or accessibility features is a really helpful skill - it means you can support patients to think about how it [ATech] can benefit their daily life” - Anna Knight, NHS Speech and Language Therapist*[[43]](#footnote-44)

Care workers and allied health professionals, such as occupational and speech and language therapists, have a powerful opportunity to support an individual’s autonomy and well-being via ATech. Examples of ATech in care include using Augmentative and Alternative Communication devices, smart home devices to control things like lights or music, and tablets and smartphones for entertainment and connecting with friends and family. However, there is a significant gap in the digital skills of the care workforce, [[44]](#footnote-45) and ATech awareness specifically,[[45]](#footnote-46) which limits the ability of services to support clients’ aspirations.[[46]](#footnote-47) For example, we heard from one specialised ATech service that they see a lot of clients who used to use ATech at school but then stopped when they transitioned to their post-education setting.[[47]](#footnote-48) Sometimes this is because the tech belongs to the educational institution instead of the individual, but sometimes this is because staff in the new settings are unfamiliar with their client’s technology and don’t know where to turn for help from more specialist ATech services.

## Employment Support

*“My work involves supporting people with sight loss to gain paid employment, by attending this course I can share what I have learned and make a difference to their lives. All the information provided was relevant to my work.” – Feedback from training*[[48]](#footnote-49)

Digital skills are increasingly relevant to securing and thriving in work and that makes it critical for disabled people to be able to use technology in the ways that suit them – i.e. to be able to use ATech.[[49]](#footnote-50) Though digital skills were once only required for desk-based roles, technology is becoming a standard part of industries as diverse as hospitality, vehicle maintenance, and care work.[[50]](#footnote-51) Employment support professionals – such as work coaches, job coaches, parole officers, and careers advisors in education settings – can be responsible for identifying an individual’s barriers to work, developing their ability to secure a job, signposting them to additional support, and directly supporting them to succeed within a specific employment context.[[51]](#footnote-52) In each of these aspects of employment support, ATech awareness is vital.[[52]](#footnote-53) For example, a client may be put off pursuing their ambition for a career in accountancy because they have a progressive visual impairment, but a careers advisor can share information about ATech used to overcome the barriers their client anticipates.

While some work coaches may not have a specific disability brief, we know that many disabled people will struggle to find employment. The disability employment rate is only 53.7% compared to 82.7% for non-disabled people.[[53]](#footnote-54) We also know that many of those who face digital barriers to employment will not identify themselves as disabled, some as a result of never having received a diagnosis nor formal support.[[54]](#footnote-55) Work coaches, then, have an important opportunity to identify potential ATech users who did not have the opportunity to use these tools earlier in life.

# Current Provision

| **Organisation** | **Sector**  | **Name of training** | **Level** | **Hours to complete training** | **Job roles of trainees** | **Number of trainees over 12-month period** |
| --- | --- | --- | --- | --- | --- | --- |
| AbilityNet[[55]](#footnote-56) | Care & Allied HealthEducationEmployment | Digital Accessibility Training (e.g. Intro to AT, Lived Experience Training, AT and Adjustments)  | Introductory | 30 min – half day | Professionals who support people in education, charities, local councils, and the workplace  | 5,800 (+ additional estimated 5-10K via e-learning AbilityNet designed for other organisations to use internally) |
| Ace Centre[[56]](#footnote-57)  | Care & Allied HealthEducation  | Ace Centre Learning (e.g. iOS Accessibility) | 3 levels: Introductory, Developing, Enhanced (used IPAACKS4 levels to benchmark training level)  | 30 min – 1 day | Residential care staff, teachers, teaching assistants, SLTs, OTs, parents, social workers, technician, engineers  | >1,000 |
| CALL Scotland[[57]](#footnote-58) | Education | CALL Scotland Training (e.g. Technology to support Additional Support Needs in Education)  | Mostly introductory  | 20 min – 10 weeks | Teachers, teaching assistants, SLTs, family members | 9,630 |
| Digital Communities Wales, Digital Confidence health and wellbeing delivered by Cwmpas[[58]](#footnote-59) | Care & Allied HealthEmployment | Digital Accessibility | Introductory, in-person sessions have bespoke levelling  | 1 hour (online) – 3 hours (in person) | Staff in health and social care, housing associations, and local authorities | 200  |
| Digital Unite, AbilityNet, Department for Digital, Culture, Media, and Sport[[59]](#footnote-60)  | Care & Allied HealthEducation | Digital Lifeline | Introductory |  | Support workers in care and specialist education | AbilityNet - 121 partner organisations; Digital Unite 69 partner organisations, 288 individual champion modules completed |
| Education & Training Foundation[[60]](#footnote-61) | Education (Post-16)  | Special Educational Needs and Disability: Digital Technologies Edtech and Essential Digital Skills | 3 Levels: Exploring, Adopting, and Leading | 45-90 min webinars + self-guided training | Post-16 Education staff (plus minority of users from schools, HE, and awarding bodies) | 100 attended SEND webinars (with additional 700/month accessing the SEND digital and tech resources site)1,204 accessibility edtech modules completed |
| Hft[[61]](#footnote-62) | Care & Allied Health | **Includes modules on:** General Awareness of Personalised Technology**;**Personalised Technology Laser Award**.** | All Introductory (besides accredited Laser award)  | 1 hour – 12 weeks | Support workers, managers, community nurses | 500 |
| Jisc[[62]](#footnote-63) | Education | Making Assistive Technology Decisions(Accessibility drop-in clinic) | Introductory | 8 hours | Further and higher education staff (student services, library and e-learning staff) | 40 (drop-in clinic is ~60 people/month)  |
| Microlink, Nasen, Department for Education[[63]](#footnote-64) | Education | Assistive Technology Training | Introductory  | 5 weeks | Education staff, mostly senior positions e.g. SENC**O**, deputy heads | 70 |
| Microsoft, Department for Work & Pensions[[64]](#footnote-65) | Employment | Accessibility Fundamentals Training | Introductory  | 2.5 hours | Work coaches (including youth employment and prison work coaches) | 23,000  |
| Microsoft, SeeAbility[[65]](#footnote-66) | Care & Allied Health | Creating Connections | Introductory  | (no data)  | Care support staff | 21 |
| Open University[[66]](#footnote-67)  | Education | Online Teaching: Accessibility and Inclusive Learning  | Advanced (postgraduate level)  | 150 hours | Teachers (FE), lecturers (HE), learning technologists, trainers (vocational)    | 45 |
| TechAbility[[67]](#footnote-68) | Education | **Includes modules on: b**uilt-in Access, 10 Practical Steps to include more learners | Introductory, in-person sessions have bespoke levelling  | 2.5 hours | Teachers, tutors, learning support teams | 135 |
| TechAbility, Ace Centre, University of Dundee[[68]](#footnote-69) | Care & Allied HealthEducation | Understanding the Benefits of AT | Introductory  | 3 hours | Learning support assistants, teachers, care support staff | 42 |
| University of Dundee[[69]](#footnote-70) | Education | MSc Educational Assistive Technology | Advanced | ~1,800 hours | Education staff (teaching support, disability advisors, SLTs) + small number from NHS AAC hubs  | 14 |
| AbilityNet[[70]](#footnote-71) | Care & Allied HealthEducationEmployment | Digital Accessibility Training (e.g. Intro to AT, Lived Experience Training, AT and Adjustments)  | Introductory | 30 min – half day | Professionals who support people in education, charities, local councils, and the workplace  | 5,800 (+ additional estimated 5-10K via e-learning AbilityNet designed for other organisations to use internally) |
| Ace Centre[[71]](#footnote-72)  | Care & Allied HealthEducation  | Ace Centre Learning (e.g. iOS Accessibility) | 3 levels: Introductory, Developing, Enhanced (used IPAACKS4 levels to benchmark training level)  | 30 min – 1 day | Residential care staff, teachers, teaching assistants, SLTs, OTs, parents, social workers, technician, engineers  | >1,000 |
| CALL Scotland[[72]](#footnote-73) | Education | CALL Scotland Training (e.g. Technology to support Additional Support Needs in Education)  | Mostly introductory  | 20 min – 10 weeks | Teachers, teaching assistants, SLTs, family members | 9,630 |
| Digital Communities Wales, Digital Confidence health and wellbeing delivered by Cwmpas[[73]](#footnote-74) | Care & Allied HealthEmployment | Digital Accessibility | Introductory, in-person sessions have bespoke levelling  | 1 hour (online) – 3 hours (in person) | Staff in health and social care, housing associations, and local authorities | 200  |
| Digital Unite, AbilityNet, Department for Digital, Culture, Media, and Sport[[74]](#footnote-75)  | Care & Allied HealthEducation | Digital Lifeline | Introductory |  | Support workers in care and specialist education | AbilityNet - 121 partner organisations; Digital Unite 69 partner organisations, 288 individual champion modules completed |

# Impact

## Data from trainees

The training providers listed in ‘Current Provision’ table (section 6) use a range of tools to measure the impact of their programmes. In addition to tracking the number of people they are training, most collect data on trainees’ perceptions of the immediate/short-term impact of training. This helps providers understand if their programme was successful in increasing:

* awareness of assistive and accessible technologies
* understanding of how ATech can help remove barriers for learners/clients
* confidence supporting others to use ATech right away
* knowledge of where to find more information (e.g. routes to funding ATech within their setting or specialist impairment-specific support).

There is strong evidence from a variety of sources that direct ATech training has a positive impact on the trainee and their ability to support their clients.[[75]](#footnote-76) Freeform feedback can be particularly illuminating and help capture how training is being applied. For example, the following quotes are from the DWP and DfE ATech training pilots:

“Good course to do. I have already benefited today explaining [text-to-speech] to one of my Employment and Support Allowance (ESA) customers who has a problem with frozen shoulders*.*”[[76]](#footnote-77)

“I think it [the training] was just good because it's amazing how many people don't know what is available. So, we had a kind of school partnership meeting last week and I took the [reader programme] and showed everyone and not one of the schools in the LA were using it and didn't know that it was available.”[[77]](#footnote-78)

## Data from frontliners’ clients

In some cases, an ATech training program is delivered as part of a wider project to increase access to ATech. These projects record impact, and this demonstrates impact for the training as an essential part of the wider project. For example, the Digital Lifeline Fund provided devices, data and support to 5,500 adults with learning disabilities.[[78]](#footnote-79) The project was delivered with 146 community partner organisations, and frontline professionals in these organisations were offered Digital Champion training (69 people took this up) and ATech training (121 people took this up). The project’s impact report recorded feedback from end users who said that they had seen increased general confidence, digital skills, and felt more connected and less lonely.[[79]](#footnote-80)

## The scale of the current training delivery

Although we cannot be sure that the review of training offers in this report is exhaustive, it gives us enough of an indication of the scale of current delivery to see that we are only reaching a fraction of frontline professionals working in education, care and allied health, and employment support roles. The state funded schools workforce is over 970,000 roles(as a full-time equivalate [FTE]), in England alone, and this figure does not include independent schools, non-maintained special schools, sixth-form colleges and further education establishments. [[80]](#footnote-81) In addition, there are 185,000 Allied Health Professionals in England alone,[[81]](#footnote-82) as well as 1.5 million people employed in England’s adult social care sector.[[82]](#footnote-83) Finally, there are between 28,000-35,000 careers advisors in England,[[83]](#footnote-84) over 12,000 probation officers in England and Wales,[[84]](#footnote-85) and just under 15,000 work coaches in UK Jobcentres[[85]](#footnote-86) (which does not count Job Coaches, who work in the supported employment sector). In sum, the delivery of awareness training remains in the tens of thousands per year, while the total addressable market for the training is the low millions. Yet reflecting on this gap is a cause for optimism: we have a tool that has proven effective and which we have yet to use to its fullest.

# What does great ATech Fundamentals training look like?

*“The first thing that struck us in our interviews with both novices and experienced workers in mid‐career was the overwhelming importance of confidence. Much learning at work occurs through doing things and being proactive in seeking learning opportunities, and this requires confidence.” – Professor Michael Eraut, University of Sussex* [[86]](#footnote-87)

Each example of ATech Fundamentals training will define somewhat different learning outcomes. However, a common thread is providing the kind of awareness that instils confidence in frontline professions regarding ATech – without them needing to identify as ‘techie’ or expert in the field. This is a confidence that one can start to explore ways of making ATech part of one’s practise: from changing one’s email signature to be accessible, to showing someone an app, to discussing with clients their options for accessing more specialised ATech and support. Awareness training also inspires confidence to seek further help and advice – using resources, checking in with peers, speaking with more specialist colleagues, etc. – and to consider further learning opportunities.

In the following sections we draw on our review of existing training listed in the ‘Current Provision Table’; our interviews with, and submissions of evidence from, training providers and experts; and out roundtable evidence session, to outline the common features of training offers that succeed in building ATech confidence and awareness. These features help define best practice in ATech Fundamentals training and should be considered in the design of future programmes.

## Taps into frontliners’ existing motivations

*“Effective professional development starts with the end in mind.” – National College for Teaching & Leadership*[[87]](#footnote-88)

*“Really appreciated the fact that trainer could link it to real world examples.” – Feedback from training*[[88]](#footnote-89)

Great ATech fundamentals training is clear from the start about how the training will impact the frontline professionals in their work improving outcomes for their clients and learners. Many people take on job roles in education, care, and employment support because they want to help others; far fewer will be excited about tech for tech’s sake.[[89]](#footnote-90) There is great value in tapping into that intrinsic motivation to help others when framing new training to professionals. For example, similar training content could be presented as “Accessibility features of Android and iPhones” or “Help someone with VI connect to others with smartphones”. The latter emphasises the purpose of the training, rather than the technological skills involved. To strengthen purpose-driven framing, training should include case studies and/or short videos that feature real ATech users demonstrating the value of the technology for their life. Importantly, these quick examples should come from settings that are applicable to recipients (e.g. teachers should see examples of disabled students using ATech in real classroom settings). It is especially motivating to frontline professionals when they can *immediately* apply their training to their work. These quick wins are key to getting people to engage with what they have learned, build their confidence, and motivate them to do more.[[90]](#footnote-91)

When setting out the purpose of training, there is also an opportunity to tackle common misconceptions that may demotivate people. For example, frontline professionals may be concerned that introducing ATech will result in an increased workload, or, conversely, put them out of a job. Sharing examples from similar settings can help tackle these misconceptions. For example, an Hft / Bristol City Council project used ATech to support independent living and ran from 2018 – 2021; a survey of support providers involved in that project revealed that 55% found that their working life is better because of the technology, with the other 45% reporting it remained the same. Nobody felt the ATech had made their working lives worse.[[91]](#footnote-92)

## Is validated by senior leadership

*“It was just interesting to listen to people at other schools to find out the things that they were doing and also the things they come up against, because sometimes it’s hard to get it past senior leadership.” – training feedback from a teaching assistant*[[92]](#footnote-93)

*“By doing this training it has become more of a priority. During [senior leadership team] meetings there's been discussion about what we're doing with it, where we're going with it and in terms of costing and how we approach it.” – training feedback from an assistant headteacher and S*ENCO[[93]](#footnote-94)

How leadership presents a training programme will impact frontline professionals’ perception of the training and how well they embed learning into their work. Someone may understand the potential value of ATech training, but they will lose motivation if they do not believe that their organisation will support them to incorporate it into their working practice.

Leadership may need support to understand the risks and opportunities afforded by empowering staff to be more proactive and creative with ATech. As Health Education England explained, leaders “need to actively work to encourage an organisational culture that is open and trusting with an ethos of information sharing, and control over digital working needs to be decentralised and staff entrusted to a far greater degree.”[[94]](#footnote-95) One way to tackle this is through training designed for leaders, such as Digital Unite’s ‘How to run a brilliant Digital Champions programme.’[[95]](#footnote-96) One of the strongest ways to reduce fears and raise motivation amongst leadership is through peer learning. If a care home manager, for example, learns from another manager about an ATech product or feature they have successfully implemented in their organisation without major disruption or security issues, this will be far more reassuring than simply reading about the potential of the tech.

## Is easy to engage with

*“Great course, learning was straight forward and in great bite size chunks, very user friendly” – training feedback from Work Coach.*[[96]](#footnote-97)

*“…60SecondCPD and on-demand focused training allows staff to up-skill in a practical manner rather than sit in a hall out of the classroom context to hear about ATech.” – Elizabeth Wilkins, Digital Lead, The Oaks Specialist College.*[[97]](#footnote-98)

The trainings we reviewed used different delivery methods and required varying lengths of engagement time. Yet training providers and other experts offers two common points of emphasis: first, the training delivery mode must be chosen to suit busy staff, not according to educational norms that are more suited to a classroom context. In many cases, training is delivered using a range of methods, including some in-person delivery (which could just be an introductory session to motivate the project) as well as both synchronous and asynchronous online learning. Second, the time requirement of the training determines whether its fundamentals level or something more advanced. One professional who is developing a training offer for her workplace, Mary Lavender, told us: “The training is about getting people started on a journey, so I’d rather a training that really excites everyone to learn more, than a big commitment that only a few people have the time to see through”.[[98]](#footnote-99)

## Rewards achievement with micro accreditations

ATech fundamentals training should encourage frontliners to stay motivated with training over time. One way to do this is through awarding ‘badges’ for completing additional modules. The act of earning badges can be motivating, and they can also be used as an official record of professional development. This record can then be used to support an individual’s career progression. Introductory ATech training can be inspiring to frontline professionals and motivate them to seek further training. There is a significant need to expand the expert ATech workforce, but there is low awareness of the routes to professionalisation.[[99]](#footnote-100) A great ATech fundamentals training offer will signpost professionals to opportunities for more advanced training (see Appendix).

## Offers specific and actionable information

*“Really helpful having someone point out apps to try - it's very daunting trying to find something amongst the huge variety available.” – Feedback from training*[[100]](#footnote-101)

To quickly raise the confidence of frontline professionals, it is key that they are provided with specific examples of ATech that they can use in their workplace. Some training offers avoid naming branded products and instead focus on wider principles and general categories of ATech. However, we know that professionals want and need the opportunity to learn about specific bits of kit and software. For example, the DfE’s Evaluation of the Assistive Technology Pilot found that sessions that focussed on raising awareness of the ATech that is available and demonstrated specific products were the most useful and most recalled by trainees, but they still wanted more: “a greater focus on presenting more examples of assistive technology, and more time spent on the assistive technology that was presented, would have been valued and this was the main improvement suggested by participants.”[[101]](#footnote-102) Similarly, Jisc surveyed members of their accessibility community on what future features would be most useful, and found that the most popular request was for more demonstrations of technology.[[102]](#footnote-103)

Great ATech fundamentals training enables the trainee to quickly start trying out ATech. Requiring frontliners to research and identify tools they may be able to use creates unnecessary barriers and reduces their confidence in applying training to their role. If a day centre has iPads, staff should be able to learn about the accessibility settings and apps that work on those devices; if an employer has invested in a mind mapping software licence, it makes sense for training to show how that software can promote accessibility. Great ATech fundamentals training is explicit about the specific tools and products that can be used in the trainee’s work context.

## Is accompanied by quality resources

It would not be reasonable to expect trainees to remember all the content in an introductory ATech training. This is particularly true for those trainees who don’t have as many opportunities to practice supporting individuals to use ATech (i.e. in roles not specifically focused on supporting disabled people) and who may need to refresh their learning long after training. The best ATech training offers keep the content open and available to trainees, including updated materials that are developed for later cohorts.

A great fundamentals-level ATech training offer includes signposting to:

* free, expert, online resources
* organisations with ATech specialists who can provide additional guidance
* routes to funding ATech for the individual the frontline professional is supporting
* referral pathways for individuals who need expert assessment and support.

## Provides an entry point into a community of peers, where people can share queries, tips, and ideas

*“The main challenge for all of us in the 21st century is the speed of technology change which is why it’s so important to build communities of practice to learn from each other, because it’s impossible to scan everything yourself”- Vikki Logier, Education and Training Foundation*[[103]](#footnote-104)

“It's [an] open, accessible and safe non-judgmental venue for collaboration, sharing and support. Many of us have no other outlet or support within our institutions. So this community is essential to us. It's also empowering us: participation and engagement with the community reflects some of Jisc’s credibility on us in internal discussions.” – Jisc Accessibility Community feedback[[104]](#footnote-105)

Peer networks are hugely valuable for supporting ATech practice over time and for translating training into action.[[105]](#footnote-106) A great fundamentals ATech training programme provides the trainee with a community of peers to whom they can turn when they need help with the messy realities of supporting ATech and digital inclusion within their specific setting. One of the most valuable aspects of peer networks is how learning from peers can raise confidence because:

* Peers are less intimidating than technology ‘experts.’ In particular, people who have ‘converted’ from being wary of technology into confident ATech supporters can be helpful in raising the confidence of others.[[106]](#footnote-107)
* Peers can highlight what works well in specific settings under shared pressures. They can identify common barriers and how to overcome them. Peer groups ask questions of each other and develop solutions together.[[107]](#footnote-108)
* The rapid pace of change within technology development presents a challenge to training providers and frontline professionals alike. Peer networks can mitigate this difficulty by increasing the reach of any individual’s knowledge, and helping continually raise awareness of those technologies that are most impactful in a specific setting. [[108]](#footnote-109)
* Peer networks are also a valuable way to connect researchers and developers to disabled user groups and their supporters. Peers can highlight opportunities to participate in research and pilot projects.

Importantly, there is evidence that frontliners want these networks and, when they have access to them, use them. For example, Jisc hosts 19 ‘communities’ on themes related to education and tech, such as ‘Cybersecurity’ and ‘EdTech’. The ‘Accessibility’ community has the most members and is the most active of all the groups.[[109]](#footnote-110)

Communities of practice and peer networks can take many different forms - Jisc uses Microsoft Teams channels, as well as emailing lists, and Facebook groups. What matters is that frontline professionals have access to these communities so they can take advantage of their peers’ knowledge and support each other under ever-changing circumstances.

# Current barriers to scaling this mode of training

Existing training providers face a range of barriers to scaling their offer, including securing leadership buy-in, co-ordinating resources, and sustaining investment.

## Engaging Leadership

ATech training can only reach frontline professionals if leadership teams buy in to these programmes, literally and figuratively. Leaders in education, care, and employment support organisations manage a huge range of competing pressures and pulls on their attention; it’s no wonder they can struggle to understand the value of ATech for their users and the importance of ATech training for their teams. Training providers do not have the resources to target and secure buy-in from individual leaders across these sectors. Kathryn Stowell, Head of Outreach and AAC, at Charlton Park Academy and CENMAC told us:

“… it can often be challenging to engage with senior leadership and requires a significant amount of work in building these relationships but is vital if we want to empower staff and make a genuine impact on ATech in education. National government could help us to raise the awareness and open doors to greatly improve our reach.”[[110]](#footnote-111)

## Co-ordination

The rapid pace of ATech development necessitates that ATech training must be continually updated. Current training providers devote significant resource to updating their learning materials and creating new content. For this reason, where this work is duplicated across different training providers it represents a significant inefficiency which takes resources away from efforts to scale training. Most organisations will survey existing training before creating their own offer but they find that current options aren’t quite suited to their purpose and so have to create their own. In order to avoid duplicating work the two organisations would have had to collaborate at the design stage, to create a product that fits both projects (perhaps with some minor tweaks to adapt core content to each use case). Providers do attempt to coordinate and collaborate (see Ace Centre and University of Dundee) but this remains a challenge as most providers are small organisations often working in different sectors. One professional who is developing a training programme at her NHS Trust told us:

“I don’t want to re-invent the wheel but it’s not as simple as just Googling to find some existing content – I need to know that our offer will be up-to-date and relevant to colleagues in my Trust.” – Mary Lavender, CNTW NHS Foundation Trust[[111]](#footnote-112)

## Sustainability

Given the lack of ATech specialists (see Appendix), an organisation’s training offer may be dependent on a single member of staff, meaning that when that person moves on, the training offer closes, or is left to become out of date. More broadly, some training offers are the result of a one-off project, funded with a single-year budget, and this risks a stop-start provision rather than sustained delivery aligned to longer term goals.

# Appendix: Expert-level ATech Training

As well as creating a broad base of ATech awareness we also need more specialist ATech professionals. Such specialists include:

* developers with the skills to design, build, and maintain inclusive digital systems[[112]](#footnote-113)
* specialist Assistive Technologists who can provide expert assessment, training, evaluation and guidance around ATech[[113]](#footnote-114)
* researchers in ATech who can continue to build the evidence base around what works well and under what conditions.[[114]](#footnote-115)

As we set out above, one of the key benefits of frontliners having awareness of ATech is that they can seek out and signpost to more specialised colleagues and services when required. In addition, we need specialists to develop and deliver fundamentals-level training, ensuring it is up-to-date and rooted in best practise. For this reason, the partnership we propose in Recommendation One must ensure that the lack of ATech specialists – which has been dubbed the “Accessible Technology Skills Gap” – does not hold back ambitions to deliver broad-based awareness.[[115]](#footnote-116) Instead of a negative loop whereby lack of ATech specialists prevents the delivery of fundamentals-level ATech training for frontline professionals, we need a positive loop, where bringing awareness to people in frontline roles helps create a pipeline of new specialists.

For those who do want to specialise, there are now more formal qualifications and specified job roles, which help make ATech an attractive career. For example, in 2020 the role of ‘assistive technologist’ was added to the European Standards Competencies and Occupations database, and in 2022, Government developed and defined the role of an Accessibility Specialist.[[116]](#footnote-117) There are also more opportunities to upskill and retrain in these roles than ever before. As of 2021, the University of Dundee has offered an MSc in Educational Assistive Technology. 2021 also saw the creation of a digital accessibility specialist apprenticeship.[[117]](#footnote-118) Government has acknowledged the need to get more people from underrepresented backgrounds, including disabled people, into tech, and has funded £23 million worth of scholarships for conversion courses into AI and data science.[[118]](#footnote-119)

# Methodology and Contributors

## Methodology

To gather evidence for this inquiry, we held a roundtable evidence session with a variety of stakeholders including disabled people, ATech training providers, disability employment specialists, inclusive education professionals, and assistive technology suppliers. We analysed written submissions to our call for evidence and supplemented our findings with in-depth interviews with other expert stakeholders. Finally, we undertook desk-based research to unearth examples of best practice and to learn from prior analysis.

## Contributors

The views in this report are those of the author and Policy Connect. They were informed by the listed contributors, but do not necessarily reflect the opinions of these organisations.

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1. DWP & Microsoft (2022), Accessibility Fundamentals Learning Feedback [unpublished] [↑](#footnote-ref-2)
2. Written Submission: 100% Digital Leeds [↑](#footnote-ref-3)
3. Tom Pursglove MP, Minister for Disabled People (2022), ‘[UN International Day of Persons with Disabilities](https://hansard.parliament.uk/Commons/2022-11-24/debates/CE4FE930-8C4D-4D9A-BE5E-E398E7585467/UNInternationalDayOfPersonsWithDisabilitieshighlight%3Dhelp%2Bmake%2Buk%2Bmost%2Baccessible%2Bplace%2Bworld%2Blive%2Bwork%2Bwith%2Btechnology#contribution-3031BDF5-6A6A-4766-BAE0-46B6574B0CFC)’ [↑](#footnote-ref-4)
4. Microsoft (2020), ‘[Jenny Lay-Flurrie: Stories from inside Microsoft’s journey to design a more accessible world](https://news.microsoft.com/stories/people/jenny-lay-flurrie.html)’ [↑](#footnote-ref-5)
5. Canada.ca (2023), ‘[Stephanie Cadieux, Chief Accessibility Officer](https://www.canada.ca/en/employment-social-development/corporate/office-chief-accessibility-officer/stephanie-cadieux.html)’ [↑](#footnote-ref-6)
6. ‘Assistive technology’ is sometimes used in a wider sense to mean any kind of assistive product or service, including e.g. accessible food packaging, eye glasses, adaptive clothing/fashion, pill dispensers, etc. but wehereuse a narrower sense of the term, so that it refers to digital products only. (Many of the same issues of lack of awareness arise also in the case of non-digital assistive products, and we look forward to forthcoming research from Global Disability Innovation Hub on the use of Assistive Products and ATech within the UK). [↑](#footnote-ref-7)
7. SeeAbility (2022), ‘[Creating Connections – our impact on tackling isolation](https://www.seeability.org/news/creating-connections-our-impact-tackling-isolation)’ [↑](#footnote-ref-8)
8. Policy Connect and the APPG for Assistive Technology (2021) ‘[Lack of tech shuts disabled people out of job opportunities](https://www.policyconnect.org.uk/news/lack-tech-shuts-disabled-people-out-job-opportunities)’. [↑](#footnote-ref-9)
9. Policy Connect and Higher Education Commission (2020), ‘[Arriving at Thriving – Learning from disabled students to ensure access for all’](https://www.policyconnect.org.uk/research/arriving-thriving-learning-disabled-students-ensure-access-all); Policy Connect and the APPG for Assistive Technology (2021), ‘[Talent and Technology: Building bridges to employment for disabled people](https://www.policyconnect.org.uk/research/talent-and-technology-building-bridges-employment-disabled-people-0)’; Policy Connect and the APPG for Assistive Technology (2021) ‘[Smarter Homes for Independent Living: Putting People in Control of Their Lives](https://www.policyconnect.org.uk/research/smarter-homes-independent-living)’. [↑](#footnote-ref-10)
10. DCMS (2022), ‘[UK Digital Strategy](https://www.gov.uk/government/publications/uks-digital-strategy)’; Shade Nathaniel-Ayodele and the Good Things Foundation Data Poverty Lab (2023), ‘[Internet access: essential utility or human right?](https://www.goodthingsfoundation.org/insights/internet-access-human-right-essential-utility-shade-nathaniel-ayodele/)’ [↑](#footnote-ref-11)
11. Central Digital & Data Office (2022), ‘[Transforming for a digital future: 2022 to 2025 roadmap for digital and data](https://digital.nhs.uk/about-nhs-digital/corporate-information-and-documents/digital-inclusion/digital-inclusion-in-health-and-social-care)’. [↑](#footnote-ref-12)
12. See e.g. DHSC (2022), ‘[Telecare stakeholder action plan: analogue to digital switchover](https://www.gov.uk/government/publications/telecare-stakeholder-action-plan-analogue-to-digital-switchover)’; Policy Connect (2022), ‘[Smarter Homes for Independent Living: Putting People in Control of Their Lives](https://www.policyconnect.org.uk/research/smarter-homes-independent-living)’. [↑](#footnote-ref-13)
13. Kat Dixon and the Good Things Foundation Data Poverty Lab (2022), ‘[A periodic table of internet elements](https://www.goodthingsfoundation.org/insights/internet-periodic-table/)’ [↑](#footnote-ref-14)
14. DCMS (2022), ‘[UK Digital Strategy](https://www.gov.uk/government/publications/uks-digital-strategy)’; DCMS (2019), ‘[No Longer Optional: Employer Demand for Digital Skills](https://www.gov.uk/government/publications/current-and-future-demand-for-digital-skills-in-the-workplace)’ [↑](#footnote-ref-15)
15. Lloyds Bank (2022) ‘[2022 Consumer Digital Index](https://www.lloydsbank.com/banking-with-us/whats-happening/consumer-digital-index.html)’ [↑](#footnote-ref-16)
16. E.g. knowing that technology could help with accessibility; having people around you who know which setting, features, and products would be helpful for you; having formal assessment for technology needs (if helpful). [↑](#footnote-ref-17)
17. E.g. owning the tech you need; having the tech you need available at work, school, or the library etc.; the websites you use are accessible and designed to work with your ATech, such as a screen reader. [↑](#footnote-ref-18)
18. E.g. having training to use the tech, if you need it; having ongoing support to use your tech, if you need it; being in an environment that is supportive of your use of ATech (you are allowed to use it, and people know how to interact with you when you do, etc.). [↑](#footnote-ref-19)
19. Policy Connect and the APPG for Assistive Technology (2021), ‘[Talent and Technology](https://www.policyconnect.org.uk/research/talent-and-technology-building-bridges-employment-disabled-people-0)’ [↑](#footnote-ref-20)
20. Anna Knight, an NHS Speech and Language Therapist told us: “I worked for a trust that had site licenses for assistive technology software this meant that not only did I not have to wait for the software to be procured through lengthy systems it also meant it was accessible to all to use if they wanted it, which led to me showing colleagues what it could do…” Written correspondence: Anna Knight [↑](#footnote-ref-21)
21. DWP & Microsoft (2022), Accessibility Fundamentals Learning Feedback [unpublished] [↑](#footnote-ref-22)
22. Department for Education (2022), ‘[Evaluation of the Assistive Technology Training Pilot](https://www.gov.uk/government/publications/assistive-technology-training-pilot-evaluation)’ [↑](#footnote-ref-23)
23. Lloyds Bank (2022) ‘[2022 Consumer Digital Index](https://www.lloydsbank.com/banking-with-us/whats-happening/consumer-digital-index.html)’ [↑](#footnote-ref-24)
24. E.g. DfE (2021) ‘[Education technology (EdTech) survey: 2020 to 2021](https://www.gov.uk/government/publications/education-technology-edtech-survey-2020-to-2021)’; Business Disability Forum (2023) ‘[The Great Big Workplace Adjustments Survey](https://businessdisabilityforum.org.uk/knowledge-hub/resources/the-great-big-workplace-adjustments-survey/)’; Ideal Insight (2023), ‘[Netflix and Captions?](https://idealinsight.co.uk/infographics/netflix-captions)’ [↑](#footnote-ref-25)
25. Evidence session; Written submissions. [↑](#footnote-ref-26)
26. For example, the prevalence data on captions suggests that awareness of this accessibility features in high in the case of Video On Demand – see Ideal Insight (2023), ‘[Netflix and Captions?](https://idealinsight.co.uk/infographics/netflix-captions)’ – but we know less about the scale of awareness of the ability to use captions in video calling, or to bring up captions on a phone for in-person conversations. [↑](#footnote-ref-27)
27. DWP & Microsoft (2022), Accessibility Fundamentals Learning Feedback [unpublished] [↑](#footnote-ref-28)
28. Written submission: 100% Digital Leeds [↑](#footnote-ref-29)
29. London Office of Technology and Innovation (2020), ‘[Assistive Technology in Social Care Impact and Evidence](file:///C%3A%5CUsers%5Crobertmclaren%5CDesktop%5CFA%20-%20June%5CAvailable%20at%3A%20https%3A%5Cloti.london%5Cresources%5Cat-research-report)’. [↑](#footnote-ref-30)
30. Nasen (2022), ‘[AT Leadership Considerations](https://asset.nasen.org.uk/AT_Leadership_considerations23.docx)’. [↑](#footnote-ref-31)
31. Written correspondence: Anna Reeves [↑](#footnote-ref-32)
32. See: DCMS (2022), ‘[Digital Lifeline: A qualitative evaluation](https://www.gov.uk/government/publications/digital-lifeline-a-qualitative-evaluation/digital-lifeline-a-qualitative-evaluation#conclusion-and-recommendations)’; DWP & Microsoft (2022), Accessibility Fundamentals Learning Feedback [unpublished]; DfE (2022), ‘[Evaluation of the assistive technology training pilot](https://www.gov.uk/government/publications/assistive-technology-training-pilot-evaluation)’ [↑](#footnote-ref-33)
33. Written submission: Digital Communities Wales, Digital Confidence health and wellbeing delivered by Cwmpas. [↑](#footnote-ref-34)
34. FutureDotNow (2021), ‘[Unpacking the hidden middle](https://futuredotnow.uk/about-us/the-hidden-middle/)’; DCMS (2022), ‘[Digital Lifeline: A qualitative evaluation](https://www.gov.uk/government/publications/digital-lifeline-a-qualitative-evaluation/digital-lifeline-a-qualitative-evaluation#conclusion-and-recommendations)’; NHSX (2021) ‘[Adult Social Care Technology and Digital Skills Review](https://transform.england.nhs.uk/key-tools-and-info/adult-social-care-digital-transformation/adult-social-care-technology-innovation-and-digital-skills-reviews/)’ [↑](#footnote-ref-35)
35. SeeAbility (2022), ‘[Creating Connections – our impact on tackling isolation](https://www.seeability.org/news/creating-connections-our-impact-tackling-isolation)’ [↑](#footnote-ref-36)
36. DWP & Microsoft (2022), Accessibility Fundamentals Learning Feedback [unpublished] [↑](#footnote-ref-37)
37. Ibid. [↑](#footnote-ref-38)
38. DfE (2022), ‘[Evaluation of the assistive technology training pilot](https://www.gov.uk/government/publications/assistive-technology-training-pilot-evaluation)’. [↑](#footnote-ref-39)
39. Written correspondence: Elizabeth Wilkins [↑](#footnote-ref-40)
40. DfE (2019) ‘[Realising the potential of technology in education](https://www.gov.uk/government/publications/realising-the-potential-of-technology-in-education)’; DfE (2022) ‘[Education technology: exploring digital maturity in schools](https://www.gov.uk/government/publications/exploring-digital-maturity-in-schools-using-edtech-data)’ [↑](#footnote-ref-41)
41. DfE (2022), ‘[Education technology (EdTech) survey: 2020 to 2021](https://www.gov.uk/government/publications/education-technology-edtech-survey-2020-to-2021)’ – but see caveat in footnote 43 of the survey results paper. [↑](#footnote-ref-42)
42. Policy Connect (2021), ‘[Talent and Technology’](https://www.policyconnect.org.uk/research/talent-and-technology-building-bridges-employment-disabled-people-0); DfE (2022), ‘[Free qualifications for adults with low digital skills](https://www.gov.uk/guidance/free-qualifications-for-adults-with-low-digital-skills)’. [↑](#footnote-ref-43)
43. Written correspondence: Anna Knight [↑](#footnote-ref-44)
44. NHSX (2021), ‘[NHSX Adult Social Care Technology and Digital Skills Review](https://transform.england.nhs.uk/key-tools-and-info/adult-social-care-digital-transformation/adult-social-care-technology-innovation-and-digital-skills-reviews/)’ [↑](#footnote-ref-45)
45. See e.g. Jane Seale (2021) ‘[Toolkits for supporting people with learning disabilities to use technology: An Overview](https://www.seeability.org/sites/default/files/2021-10/1.%20Toolkits%20for%20supporting%20people%20with%20learning%20disabilities%20to%20use%20technology.pdf)’, The Open University [↑](#footnote-ref-46)
46. Clive Gilbert (2022), ‘[Oral evidence to the Lords’ Adult Social Care Committee](https://committees.parliament.uk/oralevidence/10435/pdf/)’ [↑](#footnote-ref-47)
47. Zoe Clarke: interviewee. Cf. Lynch, Y., Murray, J., Moulam, L., Meredith, S., Goldbart, J., Smith, M., Batorowicz, B., Randall, N., and Judge, S. (2019), ‘[Decision making in communication aid recommendations in the UK: Cultural and contextual influencers](https://pubmed.ncbi.nlm.nih.gov/31271046/)’ in Augmentative and Alternative Communication [↑](#footnote-ref-48)
48. Written submission: Digital Communities Wales, Digital Confidence health and wellbeing delivered by Cwmpas [↑](#footnote-ref-49)
49. DCMS (2019), ‘[No Longer Optional: Employer Demand for Digital Skills](https://www.gov.uk/government/publications/current-and-future-demand-for-digital-skills-in-the-workplace)’ [↑](#footnote-ref-50)
50. Microsoft (2021), ‘[Empowering your diverse frontline workforce with inclusive technology](https://www.microsoft.com/en-gb/industry/blog/cross-industry/2021/01/06/empowering-your-diverse-frontline-workforce-with-inclusive-technology/)’; AccessHospitality (n.d.) ‘[Our Story](https://accesshospitality.org/our-story)’ [↑](#footnote-ref-51)
51. Policy Connect (2021), ‘[Talent and Technology](https://www.policyconnect.org.uk/research/talent-and-technology-building-bridges-employment-disabled-people-0)’ [↑](#footnote-ref-52)
52. The Work and Pensions Select Committee recommended ATech training for Work Coaches as far back as 2018. See Work and Pensions Select Committee, (2018), ‘[Assistive technology: tenth report](https://committees.parliament.uk/work/5426/assistive-technology-inquiry/publications/)’. [↑](#footnote-ref-53)
53. House of Commons Library (2023), ‘[UK labour market statistics](https://researchbriefings.files.parliament.uk/documents/CBP-9366/CBP-9366.pdf)’ [↑](#footnote-ref-54)
54. Policy Connect (2021), ‘[Talent and Technology](https://www.policyconnect.org.uk/research/talent-and-technology-building-bridges-employment-disabled-people-0)’. [↑](#footnote-ref-55)
55. Written submission: AbilityNet [↑](#footnote-ref-56)
56. Written submission: Ace Centre [↑](#footnote-ref-57)
57. Written submission: CALL Scotland [↑](#footnote-ref-58)
58. Written submission: Digital Communities Wales, Digital Confidence health and wellbeing delivered by Cwmpas [↑](#footnote-ref-59)
59. DCMS (2022), ‘[Digital Lifeline: A qualitative evaluation](https://www.gov.uk/government/publications/digital-lifeline-a-qualitative-evaluation/digital-lifeline-a-qualitative-evaluation#conclusion-and-recommendations)’. [↑](#footnote-ref-60)
60. Education & Training Foundation: written submission [↑](#footnote-ref-61)
61. Written submission: Hft [↑](#footnote-ref-62)
62. Written submission: Jisc [↑](#footnote-ref-63)
63. DfE (2022), ‘[Evaluation of the assistive technology training pilot](https://www.gov.uk/government/publications/assistive-technology-training-pilot-evaluation)’. [↑](#footnote-ref-64)
64. Claire Smalley, DWP & Hector Minto, Microsoft: Interviewees [↑](#footnote-ref-65)
65. Written submission: Microsoft [↑](#footnote-ref-66)
66. Tim Coughlin: interviewee [↑](#footnote-ref-67)
67. Written submission: TechAbility [↑](#footnote-ref-68)
68. Ibid. [↑](#footnote-ref-69)
69. Written submission: University of Dundee [↑](#footnote-ref-70)
70. Written submission: AbilityNet [↑](#footnote-ref-71)
71. Written submission: Ace Centre [↑](#footnote-ref-72)
72. Written submission: CALL Scotland [↑](#footnote-ref-73)
73. Written submission: Digital Communities Wales, Digital Confidence health and wellbeing delivered by Cwmpas [↑](#footnote-ref-74)
74. DCMS (2022), ‘[Digital Lifeline: A qualitative evaluation](https://www.gov.uk/government/publications/digital-lifeline-a-qualitative-evaluation/digital-lifeline-a-qualitative-evaluation#conclusion-and-recommendations)’. [↑](#footnote-ref-75)
75. DCMS (2022), ‘[Digital Lifeline: A qualitative evaluation](https://www.gov.uk/government/publications/digital-lifeline-a-qualitative-evaluation/digital-lifeline-a-qualitative-evaluation#conclusion-and-recommendations)’; DWP & Microsoft (2022), Accessibility Fundamentals Learning Feedback [unpublished]; DfE (2022), ‘[Evaluation of the assistive technology training pilot](https://www.gov.uk/government/publications/assistive-technology-training-pilot-evaluation)’. [↑](#footnote-ref-76)
76. DWP & Microsoft (2022), Accessibility Fundamentals Learning Feedback [unpublished] [↑](#footnote-ref-77)
77. DfE (2022), ‘[Evaluation of the assistive technology training pilot](https://www.gov.uk/government/publications/assistive-technology-training-pilot-evaluation)’. [↑](#footnote-ref-78)
78. DCMS (2022), ‘[Digital Lifeline: A qualitative evaluation](https://www.gov.uk/government/publications/digital-lifeline-a-qualitative-evaluation/digital-lifeline-a-qualitative-evaluation#conclusion-and-recommendations)’. [↑](#footnote-ref-79)
79. Ibid. [↑](#footnote-ref-80)
80. GOV.UK (2023), ‘[School workforce in England: Reporting year 2022](https://explore-education-statistics.service.gov.uk/find-statistics/school-workforce-in-england)’ [↑](#footnote-ref-81)
81. NHS England (2022), ‘[The Allied Health Professions (AHPs) Strategy for England: 2022 – 2027 AHPs Deliver](https://www.england.nhs.uk/long-read/the-allied-health-professions-ahps-strategy-for-england-ahps-deliver/)’ [↑](#footnote-ref-82)
82. House of Commons Library (2022), ‘[Adult social care workforce in England](https://commonslibrary.parliament.uk/research-briefings/cbp-9615/)’ [↑](#footnote-ref-83)
83. Institute for Employment Studies (2021), ‘[The professional careers adviser workforce](https://www.employment-studies.co.uk/resource/professional-careers-adviser-workforce)’ [↑](#footnote-ref-84)
84. HM Prison and Probation Service (2022), ‘[workforce quarterly: September 2022](https://www.gov.uk/government/statistics/hm-prison-and-probation-service-workforce-quarterly-september-2022/hm-prison-and-probation-service-workforce-quarterly-september-2022--2#probation-practitioners-and-senior-probation-officers)’ [↑](#footnote-ref-85)
85. See: [Guy Opperman MP in reply to Marion Fellows MP, UIN 186913, tabled on 25 May 2023](https://questions-statements.parliament.uk/written-questions/detail/2023-05-25/186913). (The number of work coaches has falling since the ‘Accessibility Fundamentals’ training was conducted). [↑](#footnote-ref-86)
86. Eraut, M (2004), ‘[Informal learning in the workplace](https://doi.org/10.1080/158037042000225245),’ in Studies in Continuing education, vol. 26, no. 2, p 247-273. [↑](#footnote-ref-87)
87. National College for Teaching and Learning (2015), ‘What makes great pedagogy and great professional development: final report’. [↑](#footnote-ref-88)
88. Written submission: Digital Communities Wales, Digital Confidence health and wellbeing delivered by Cwmpas [↑](#footnote-ref-89)
89. Evidence session [↑](#footnote-ref-90)
90. Rachel Benn: Interviewee [↑](#footnote-ref-91)
91. Hft (2021), ‘[Learning Disability Assistive Technology project](https://www.hft.org.uk/our-services/personalised-technology/projects/learning-disability-technology-project-ldat/)’. [↑](#footnote-ref-92)
92. DfE (2022), ‘[Evaluation of the assistive technology training pilot](https://www.gov.uk/government/publications/assistive-technology-training-pilot-evaluation)’. [↑](#footnote-ref-93)
93. *Ibid.* [↑](#footnote-ref-94)
94. Health Education England (2017), ‘[Improving Digital Literacy](https://www.rcn.org.uk/professional-development/publications/pub-006129)’. [↑](#footnote-ref-95)
95. Digital Unite (n.d.), ‘[Course List](https://www.digitalunite.com/course-list)’ [↑](#footnote-ref-96)
96. DWP & Microsoft (2022), Accessibility Fundamentals Learning Feedback [unpublished] [↑](#footnote-ref-97)
97. Written correspondence: Elizabeth Wilkins [↑](#footnote-ref-98)
98. Written correspondence: Mary Lavender [↑](#footnote-ref-99)
99. Evidence session [↑](#footnote-ref-100)
100. Written submission: Digital Communities Wales, Digital Confidence health and wellbeing delivered by Cwmpas [↑](#footnote-ref-101)
101. DfE (2022), ‘[Evaluation of the assistive technology training pilot](https://www.gov.uk/government/publications/assistive-technology-training-pilot-evaluation)’. [↑](#footnote-ref-102)
102. Written submission: Jisc [↑](#footnote-ref-103)
103. Vikki Liogier: interviewee [↑](#footnote-ref-104)
104. Written submission: Jisc [↑](#footnote-ref-105)
105. See Andy Coverdale, Sarah Lewthwaite, and Sarah Horton (2022), ‘[Teaching accessibility as a shared endeavour: building capacity across academic and workplace contexts](https://dl.acm.org/doi/10.1145/3493612.3520451)’, and Evidence Session [↑](#footnote-ref-106)
106. Zoe Clark: Interviewee [↑](#footnote-ref-107)
107. Written submission: Jisc [↑](#footnote-ref-108)
108. Vikki Liogier: Interviewee [↑](#footnote-ref-109)
109. Jisc: written submission. Examples of recent ATech peer to peer support in the channel include: a channel member looking for accessible workplace preparation training materials for a student with vision impairment who uses a screen reader; a member trying to support a student with hearing impairment in lectures via a hearing loop and captions, asking if others have tried this and if it worked well for them; and many examples of staff supporting each other with troubleshooting kit not working as expected, or not working well with education-specific software (such as TurnItIn), or trying to assess the claims of a specific product before purchasing by asking if peers have had success with it in their educational settings. [↑](#footnote-ref-110)
110. Written correspondence: Kathryn Stowell [↑](#footnote-ref-111)
111. Written correspondence: Mary Lavender [↑](#footnote-ref-112)
112. Coverdale et al. (2022), ‘[Teaching accessibility as a shared endeavour: building capacity across academic and workplace contexts](https://dl.acm.org/doi/10.1145/3493612.3520451)’ 19th International Web for All Conference, Virtual. 25-26 Apr 2022. [↑](#footnote-ref-113)
113. On the need for these roles see, e.g. Rohan Slaughter and Trevor Mobbs (2015), ‘[The DART Project: Improving Assistive Technology Provision in Further Education](https://discovery.dundee.ac.uk/en/publications/the-dart-project-improving-assistive-technology-provision-in-furt)’ [↑](#footnote-ref-114)
114. On the need for more of this kind of research see, e.g. Dave L. Edyburn (2020), ‘[Rapid literature review on assistive technology in education](https://www.gov.uk/government/publications/assistive-technology-at-stakeholder-reports)’ [↑](#footnote-ref-115)
115. See Cabinet Office Disability Unit (2021), ‘[Public services: National Disability Strategy explained](https://disabilityunit.blog.gov.uk/2021/07/28/public-services-national-disability-strategy-explained/)’ [↑](#footnote-ref-116)
116. European Commission, (n.d.), ‘[Assistive technologist](https://esco.ec.europa.eu/en/classification/occupation?uri=http://data.europa.eu/esco/occupation/4e82464b-e9d7-4d51-9116-294ab40c5169)’; Central Digital and Data Office (2022), ‘[Accessibility specialist](https://www.gov.uk/guidance/accessibility-specialist)’ [↑](#footnote-ref-117)
117. Institute for Apprenticeships & Technical Education, ‘[Digital Accessibility Specialist](https://www.instituteforapprenticeships.org/apprenticeship-standards/digital-accessibility-specialist-v1-0)’ [↑](#footnote-ref-118)
118. DCMS (2022), ‘[£23 million to boost skills and diversity in AI jobs](https://www.gov.uk/government/news/23-million-to-boost-skills-and-diversity-in-ai-jobs)’ [↑](#footnote-ref-119)