UK Disability History Month Broadsheet 2020

"We need to make every single thing accessible to every single disabled person." **Stevie Wonder**

In our 11th year we are focusing on Access and asking the questions 'How far have we come? How far have we to go?' UK Disability History Month runs from the online launch on the evening of 18th November to 18th December 2020.

For disabled people **access** is now a fundamental human right, as is gaining participation on an equal level with others, regardless of our impairments. Disabled people have struggled for many years to change society's lived physical and information environment.

Only the Struggles of Disabled People have led to Improvements

There had been national laws, building codes and standards, partially acknowledging the need for access in the previous 120 years. All of these were fought for by disabled people, their organisations and some non-disabled led charities. People with sensory impairments were in the vanguard, arguing for the teaching and use of Braille, Sign Language, gaining concessions

in a minority of mainly higher income countries. In 2013 organisations of Blind and Visually Impaired People campaigned and won the <u>Marrakesh Treaty</u> which made easier the production and international transfer of specially-adapted books for people with blindness or visual impairments. This established a set of limitations and exceptions to traditional <u>copyright law</u>. In the last 40 years, People with Learning Difficulties have fought for access to ordinary education. In the 1990s, Direct Action Network (DAN) chained themselves to buses until the date for accessible transport was brought forward. Now Neuro-Diverse People and their organisations are battling for their acceptance and the adjustments they need. The first International Human Rights Treaty to explicitly include **accessibility** as a principle was the UN Convention on the Rights of Persons with Disabilities (UNCRPD), 2008.

Article 9 UNCRPD Accessibility

"9.1 To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas. These measures, which shall include the identification and elimination of obstacles and barriers to accessibility, shall apply to, inter alia:

a) Buildings, roads, transportation and other indoor and outdoor facilities, including schools, housing, medical facilities and workplaces;

b) Information, communications and other services, including electronic services and emergency services".

The UNCRPD prohibits discrimination and requires States to take measures to ensure accessibility of the physical environment and information and communications technology. The UNCRPD goes into much greater depth than other human rights treaties in setting out the steps that States should take to prohibit discrimination and achieve equality for all. **The UK ratified in June 2009.**

Walking aids -sticks, staffs, crutches and various hand crutches are common throughout human history and cultures. People with a mobility impairment had to adjust themselves to the built and rural environment as it was designed for non-disabled people. They were often subject to stigma, but generally had to just get on with things with their walking aid.

Top row, L to R: Hephaestus, Greek disabled God of Fire had a club foot and walked with a crutch; a Greek vase with person with walking aids; Middle Period Egyptian, walking with staff; Bottom row: Polio survivor with staff, Egyptian wall relief; Pieter Brueghel the Elder 'Mendicants '[beggars](1586) 5 disabled men with crutches and protheses with fox tails attached to denote dishonesty.

As in Brueghel's picture there is a note of scepticism, Hieronymus Bosch's engraving (left) (1599) entitled *Cripples and Beggars* shows a variety of walking aids. It has a subtitle 'Avoid walking and gain a fat income', shades of Benefit Street or the Sun's campaign to shop Benefit scroungers. When investigated, less than 1.5% of benefit claims by disabled people are fraudulent.

Throughout history and still around the world in low income areas, ambulant impaired people have to come up with their own solutions to barriers to mobility.

Above left: Nigerians develop their own mobility aids.
Above right: flood survivors' camp, crutch user, Bangladesh.
Below: North American Plains First Peoples with Litter; transporting disabled person on barrow Luttrell Psalter, England 1386; wounded knight carried in basket 1340, UK.

History of mobility devices

Litters and Sudan chairs predate wheelchairs as a means of moving disabled people or high-status people.

Ivar the Boneless[1]

Norse myths tell of one of the leaders of the Viking attacks on England having to be carried into battle as he was physically disabled [probably brittle bones]. Ivar the Boneless, youngest son of Ragnar Lothbrok and Princess Aslaug, was a powerful Viking leader. He was considered to be the wisest, strongest and most skilful of warriors. Despite an inability to walk, he led raiding conquests across Northern Europe and the invasion of England in 865 AD. He was carried on a shield or poles but had great upper body strength... The mind of Ivar was considered a much stronger weapon than those swords and shields carried by other Vikings. The myth is good box office and Ivar (sitting, above) is featured as ambulant impaired in the recent smash series 'Vikings'.

A wheel barrow used for transporting grain and people is recorded in China C6th BC. Here Confucius (525 BC) is using it to

[1] https://bavipower.com/blogs/bavipower-viking-blog/ivar-ragnarsson-the-cursed-child-and-a-military-genius

be pushed to talk to children. This was used for transporting people with reduced mobility.

Stone inscriptions from Ancient China and Greece suggest that wheelchair-type furniture was used at least since C6th BC.

The first image was found as part of a Chinese carving dating back to the 6th century. The second is a carving found on a Greek vase dating back to 525 B.C.!

In 1595 one of the best-documented early examples was made by an unknown inventor for King Philip of Spain , who in later years suffered from severe gout which made walking difficult. This chair was elaborate in its design with plush upholstery, arm and leg rests and four small wheels which meant that he needed to be pushed around by a servant.

In1655, the first self-propelled **wheelchair** was invented by a paraplegic clock-maker of Nuremberg, Germany, Stephan Farffler (1633-1689), who built his own mobility aid at 22 after having broken his back as a child. Using his mechanical expertise, Farffler's wheelchair frame was based on a three-wheel chassis and worked by turning handles attached to a geared front wheel using a system of cranks and cogwheels. **The forerunner of the bicycle.**

In the high income world in states with funded rehabilitation services, a vast array of wheel chairs are these days available. In the UK, Personal Independence Payment can be used to purchase electric, stair-climbing, rise and fall chairs and adapted vehicles hired from Motability to carry them around. Many have lost this under recent austerity measures.

Left: Bath Chair used to push 'invalids' to take curative waters in the Spa Town 1750; Georges Couthon, one of the leaders of the French Revolution used a mechanical chair in Paris, 1791-1794; Below: Everest Chair 1932 first tubular folding wheelchair; Wrigley Electric Chair 1963, probably the first in UK.

Herbert A. Everest

- Wanted a wheelchair that could go in an automobile
- Teamed with engineer, HC Jennings, to manufacture first folding metal WC
- 1933, Los Angeles

Much of the urban environment has been made accessible with dropped kerbs, ramps and lifts due to early struggles in 1970s. Only 7% of the disability community need to use wheelchairs though it is often the symbol for disability access.

An estimated 1% of the world's population, or just over 75 million people, need a wheelchair. In most developing

countries, few of those who need wheelchairs have access, production facilities are insufficient and

Mobility tricycles with hand pedals can be made locally from bicycle parts but cannot navigate rough terrain.

wheelchairs are often donated without the necessary related services. Providing wheelchairs that are appropriate, well-designed, fitted to the person, can deal with rough terrain, not only enhances mobility but opens up a world of education, work and social life. David Constantine (above left), 30 years ago newly paraplegic, started designing chairs for rough terrain and set up the organisation Motivation to support the local manufacture of wheelchairs.[2]

Disabling Barriers

UKDHM subscribes to a 'social/human rights model' of disability in which we recognise disabled people are disadvantaged primarily by barriers of environment, attitude and organisational practices. These barriers prevent or hinder us, people with a wide range of impairments, from accessing transport, buildings, educational establishments, hospitals, workplaces, housing, retail and leisure facilities There have always been disabled people, but only in the last 40 years the

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[2] https://thebristolmag.co.uk/mr-motivation/ and https://www.motivation.org.uk/our-story

need to get rid of barriers has been increasingly recognised, under pressure from us and the legislation we have won.

Prior to this and still in many people's minds, disability is seen

as a tragedy that happens to us because of genes, disease, accident or war and we need to be rehabilitated to overcome the impairment in our body or mind or learn to have second class lives, often isolated and segregated. Having an impairment can sometimes be painful, life shortening and disempowering, but having to deal with prejudicial barriers based on negative attitudes from the past, is discrimination that denies us our human rights. When the barriers are in the built environment, transport, information system or elsewhere, it has been a choice to design them in a disabling or enabling way. Therefore, awareness and attitudes are the key to change, backed up by strong legislation.

Rights and wrongs of access
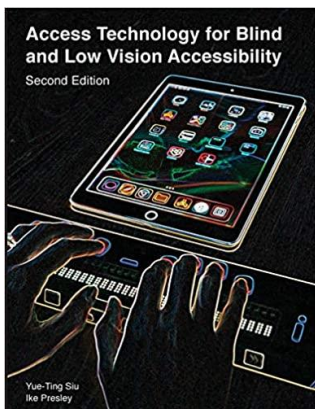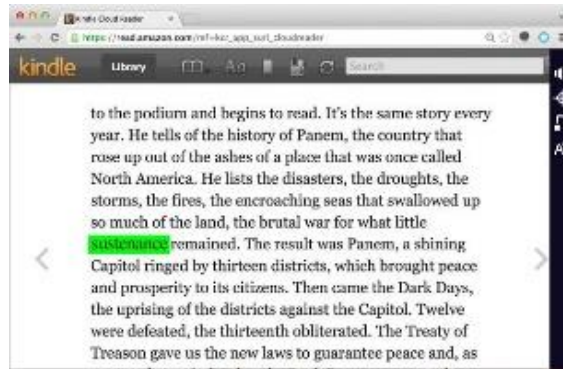
There certainly has been progress, even though the UK legislation is weak and it is left to the individual and their family to enforce it.

We as disabled people are always playing catch up, asking for reasonable adjustments and support to navigate a system largely not designed to include us. This is why the UNCRPD talks about the goal of universal design

" This means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. "Universal design" shall not exclude assistive devices for particular groups of persons with disabilities where this is needed".   This is fundamentally different from reasonable adjustment.

"Reasonable accommodation means necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms".

Universal design innovations in Information Technology mean in virtual space many of our barriers can disappear. To be accessible, a technology must be usable in an equal manner by all users without relying on specific senses or abilities. The technology must be compatible with the assistive technologies users may rely on: narrators, scanners, speech recognition, alternate input, enlargement, voice-activated technologies, pictograms and easy read programmes, online sign interpreters, and many other devices disabled people may employ.

When World Wide Web was invented in 1994, Tim Berners-Lee kept accessibility at the forefront in the World Wide Web Consortium (W3C). At the beginning, browsers simply displayed text and different accessibility contexts were simpler to adapt to. Soon images, blink tags etc. made their way onto the web, and things got more complicated.

The Web Accessibility Initiative (WAI) was founded to take access to the web forward. In   1999, the Web Content Accessibility Guidelines (WCAG) were published as an official W3C recommendation. Making the Web Accessible https://www.w3.org/WAI/ which is linked to the law directly in the USA, Australia, Canada, New Zealand, China EU and less clearly in UK, Sweden and many other countries WCAG2. https://www.w3.org/WAI/policies/

Blind and Visually Impaired IT used access. Traditional forms of access to information such as print have meant that people who are blind and visually impaired have more difficulty in accessing the same information which people who are sighted take for granted. Increasingly, computers are being viewed as the solution to the problem of access to the printed word. Now they have different ways of accessing these devices. Blind people use assistive technology, including screen readers, refreshable braille displays and digital screen magnification to interact with high-tech products.

Assistive technology is any hardware or software used by disabled people to access computers, phones, tablets and printed materials. Different impairments require different technologies.
Examples
ZoomText This software not only provides screen magnification but many other useful features, such as being able to manipulate colour texts and other elements which are displayed for easier viewing. For example, instead of seeing the traditional black text on a white background, the user might set it to display the text as green on a black background. Here's a demo

[showing how ZoomText works](#). It is commercially produced and expensive.

JAWS, Job Access With Speech was the world's most popular screen reader, developed for computer users whose vision loss prevented them from seeing screen content or navigating with a mouse. Last year NVDA replaced it as the most popular. Ted Henter is another blind inventor who is demolishing stereotypes. Water-skiing is just his hobby, though he was a world champion. His breakthrough invention is JAWS which provides speech and Braille output for the most popular computer applications on your PC. Blind people can now navigate the Internet, write a document, read an email and create presentations from their office, remote desktop or from home. Henter-Joyce produced JAWS, a screen reader for personal computers using MS-DOS, and later Microsoft Windows, which is sold via a company called Freedom Scientific.

Non Visual Desktop Access (NVDA) is a free, open-source, portable screen reader for Microsoft Windows. Michael Curran and James Teh met as children on an Australian music camp for blind people. They shared a strong interest in computers. Several years later they joined forces to help improve the accessibility of computers for blind and visually impaired people. For blind people to use a computer, they need a screen reader which reads the text on the screen in a synthetic voice or with a braille display.

But in many cases screen reading software costs more than the computer itself. In the past this has left computers inaccessible to millions of blind people around the world. This is a critical problem, because without computers, access to education and employment is severely limited, not to mention everyday functions such as online banking, shopping and news.

In April 2006 Michael began to develop a free screen reader called NVDA (NonVisual Desktop Access) for use with computers running on Windows. He invited James, who had recently completed his IT degree, to develop the software with him. They founded the not-for-profit organisation NV Access to support the development of the NVDA screen reader. Before long they were able to work full-time on the project, thanks to a series of corporate grants and individual donations. NVDA has been translated by volunteers into more than 55 languages and been used by people in more than 175 countries. It has also won multiple awards. https://youtu.be/Ks7AwV_uxO0

The Technology for Blind and visually impaired people is developing all the time. Companies like Microsoft, IBM, Google, Hewlett Packard who produce hardware and software, some years ago decided that the demand for specialist adaptions to their products was too small and so they should go for universal design with access features built into all their products. Commercial pressures and lack of strongly enforced legislation have meant this is not adhered to and so there will continue to be a need for supplementary assistive technology. This is a fast changing field and

organisations like the Royal National Institute of Blind People play an important part in making their members aware https://www.rnib.org.uk/practical-help/technology/resource-hub .

New Artificial Intelligence Technology holds out the hope of much improved access.
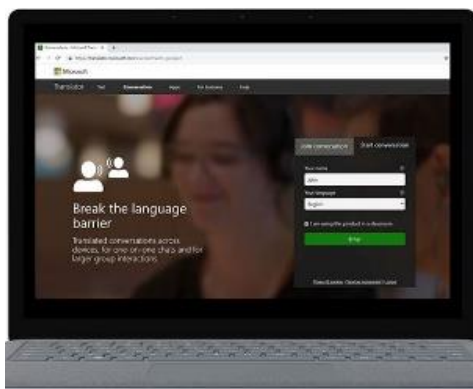
Microsoft Translator - site provides free resources, tools and how-to guides for live captioning and translation in the classroom to help deaf students.

Helpicto, an application that turns voice commands into images, is enabling children with autism in France to better understand situations and communicate with others.

Seeing AI and auto alt-text features are helping narrate the world for people who are blind or have low vision.

8 Stats Shaping the Delivery of Today's Web & Mobile Apps

88% of online consumers are less likely to return to a site after a bad experience

62% of people expect a consistent experience across mobile and desktop

5x more users abandon a task if a site isn't optimised for mobile

53% of mobile site visitors abandon page if it takes 3+ seconds to load

62% of mobile users uninstall an app that doesn't work well

£950B is the disposable spending power of people with disability

£1.35T of lost business revenue stems from software failures annually

92% of web applications have security weaknesses or flaws that can be exploited

Plan it

Read more: planittesting.com/21-digital-stats

There are strong commercial arguments for IT firms to understand accessibility. Not all assistive devices are affordable or available for many disabled people in low and middle income families. The recent lockdown for Covid-19, when 1.5 billion children were sent home, showed those on higher incomes were able to access on line learning, but those from poor circumstances, especially disabled learners were not catered for and have fallen further behind. Free market economics cannot

solve such problems, only states and international agencies working in the interests of everyone can.

Access for Neuro Diverse People

A growing group of disabled people are Neuro-Diverse including those on the Autistic Spectrum.

HEAR OUR SPECTRUM OF VOICES

"How will everyone know how much I know and have to offer if I can't always tell them? There is so much more to communication than being able to speak.

Be patient and listen, not just spoken words, but to all words, all forms of communication."

Quote by Chloe Rothschild
Comic Art by Rebecca Burgess

The need to moderate sensory overload and provide calming spaces is only recently being recognised as those who identify as neuro-diverse and their families raise their demands.
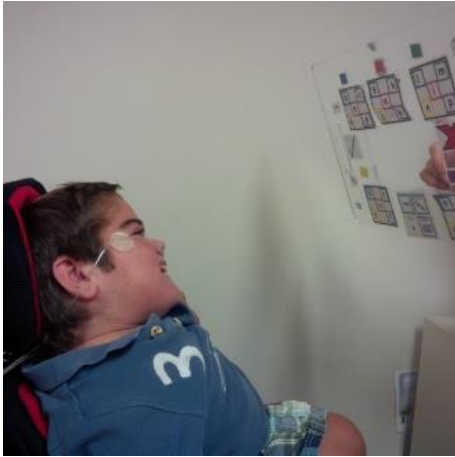
HEAR OUR SPECTRUM OF VOICES

https://geekclubbooks.com/spectrum-voices- comic/

"Assume I hear everything. I take in so much more than you may think. Years from now, you'll be shocked to find out just how much of everyday life I remember and how much I was taking in about what went on around me."

Quote by Lydia Wayman
Comic Art by Rebecca Burgess

Locked in Children

Another group of disabled people who are denied their rights are those with cerebral palsy (CP) or other conditions that prevent them speaking or operating keyboards without adaptations. Jonathan Bryan now 14, wrote *Eye Can Write: A Memoir of A Child's Silent Soul Emerging* when he was 12. Jonathan's CP condition made him unable to make voluntary movement or speech. He was locked inside his own mind, aware of the outside world but unable to fully communicate with it until he found a way of using his eyes to laboriously choose individual letters to make his thoughts known. For 3 years Jonathan Bryan attended his local special school with the label "Profound and Multiple Learning Disabilities" (PMLD), where he was taught very basic letters and numbers with little or no progression. When he was 7 years old, and at the start of year 3, his mother took him out of special school for a few hours a day to teach him to read and write. They started whole word reading and basic phonics and progressed on to spelling out words and writing sentences. By the age of 9 Jonathan was using a spelling board to write everything that he wanted to say. He left special school to join his peers at his local primary school https://eyecantalk.net/ Following his recovery from a serious illness when he was 10, Jonathan felt he had been given extra time to make a difference in education for children who are non-verbal like him. As he was recovering he set up the Teach Us Too campaign in June 2016,

which was covered in national media
https://www.youtube.com/watch?v=WKImLzqe6mQ.

Schools and access for disabled children and young people

On paper all our schools are meant to promote inclusion, eliminate disability discrimination, make reasonable adjustments and provide the necessary support for disabled
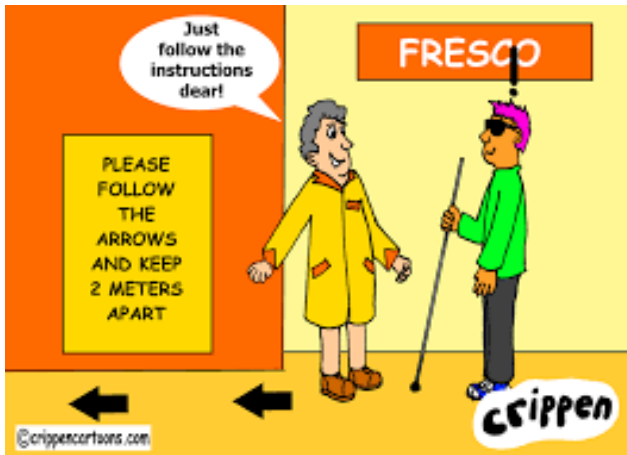
pupils to access learning and the social life of their school (Equality Act 2010 and Article 24 UNCRPD). In addition all publicly funded schools in England are also meant to promote Disability Equality in all they do :- a) prevent discrimination and harassment (e.g impairment based bullying); b) advance equality of opportunity between persons who share a disability and persons who do not share it; (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.(Section 149 Equality Act). When the SEND amendment Act (2001) came in all school's Responsible Bodies were under a duty to have an Access plan, to consult on it, implement, review, revise and fund it. This duty was re-enacted in the Equality Act (Section 88, Schedule 10)

An accessibility plan is to, over a prescribed period (3 years) —
• Increase access to the curriculum for Disabled pupils;
• Improve the physical environment of the school to increase access for Disabled pupils; and
• Make written information more accessible to Disabled pupils by providing information in a range of different ways.

In 2019 the Alliance for Inclusive Education commissioned a study into the effectiveness of this statutory requirement[3]. *Accessibility Plans (AP) as Effective Tools for Inclusion in Schools: Are They Working?* They talked to 300 parents and pupils and 100 teachers, questioned schools and local authorities. They found AP were hidden away, were not generally implemented, not consulted upon, did not tackle the curriculum, changing attitudes and practice in pedagogy. OFSTED are meant to inspect these plans, but they do not. There is no end date when schools have to be fully accessible, unlike all other public sector buildings. The Governments ideology of marketizing schools and developing through league tables an education factory system leaves less and less room for inclusion and accessibility and little incentive to prioritise training and develop inclusive pedagogy. This is exacerbated by a large increase in enrolment in special schools, as mainstream schools become less habitable for disabled children. This is a national disgrace and one of the many reasons why the Government was heavily criticised by the United Nations saying they presided over "grave and systematic violations" of the rights of disabled people.

Change to Enhance Access

There are two types of change around access. Innovations from disabled people and their allies to enhance their quality of life by developing assistive technology and methods of access which often have led to benefits for all; secondly campaigns led by disabled people and supported by allies including policy makers to change the rules, regulations, laws and enforcement of disability access.

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[3] https://www.allfie.org.uk/wp-content/uploads/2020/01/AccessibityPlans-report-EMBARGOED.pdf

Examples of Innovations

1644 *Chirologia**, or the naturall language of the hand. Composed of the speaking motions, and discoursing gestures thereof*, by a medical doctor John Bulwer. Allows hearing people to understand deaf people.
Prior to this they were assumed *'mentally defective'* or *'dumb'*.

1760 In France, the first sign languages were developed in the C18th. Old French Sign Language was used in Paris' Deaf community, before l'Abbé Charles Michel de l'Épée started his Deaf school. But he synthesized with French grammar and it evolved into the French Sign Language that could be learned and interpreted by Deaf and Non-deaf people. See https://www.ucl.ac.uk/british-sign-language-history/

1808 The first typewriter is built in Italy by Pellegrino Turri to help a blind friend write legibly.

1824 Braille, universally accepted system of writing used by and for blind people and consisting of a code of 63 characters, each made up of one to six raised dots arranged in a six-

position matrix or cell. These Braille characters are embossed in lines on paper and read by passing the fingers lightly over the manuscript. [Louis Braille](), who was blinded at the age of three, invented the system in 1824 while a student at the Institution Nationale des Jeunes Aveugles (National Institute for Blind Children), Paris.
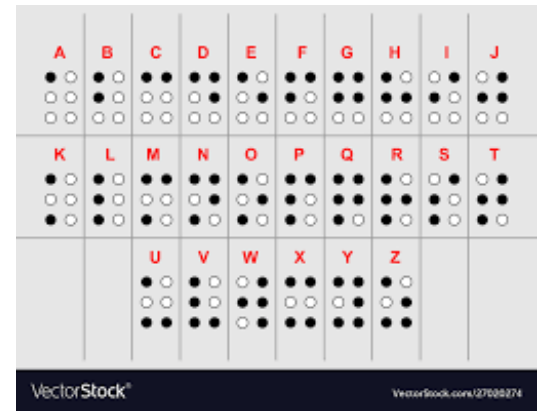
1886 Herman Hollerith, who had a cognitive processing impairment, implemented the idea of using punch cards to transport data from the 1890 census. He later founded the Tabulating Machine Company. In 1924, it became known as IBM.

1916 Harvey Fletcher built the Western Electric Model 2A hearing aid at Bells Labs.

1948 John Bardeed, William Shockley and Walter Brattain at Bell Labs invented the transistor, creating more reliable, smaller, cheaper, hearing aids. They won the 1956 Nobel Prize for Physics.

1964 A deaf orthodontist sent a teletype machine to a deaf scientist, beginning the TTY (Teletypewriter) revolution.

1972 Vinton Cerf, who had a hearing impairment and was married to a deaf woman, developed host level protocols for ARPANET. He communicated with his wife through the computer using text, the precursor to e-mail, which has changed everyone's lives.

Movements

ADAPT The Atlantis Community was started in Denver, Colorado, in 1975, when Reverend Wade Blank, a non-disabled former nursing home recreational director, assisted several severely disabled nursing home residents to move out and start their own community. In 1978 protests were held in Denver by members of the Atlantis Community and Blank, against the wheelchair inaccessibility of public buses in that city. These protests included the nation's first demonstration for wheelchair-accessible public buses. At that protest, members of the Atlantis Community (called the Gang of Nineteen) chanted "We will ride" and blocked buses with their wheelchairs, staying in the streets throughout the night. In 1983, the Gang of Nineteen started ADAPT after several years of similar local bus protests. Originally, ADAPT's name was an acronym that stood for **Americans Disabled for Accessible Public Transit**, since the group's initial issue was to get wheelchair-accessible lifts on buses. Throughout the 1980s, the campaign for bus lifts expanded to cities nationwide. ADAPTers became well known for their tactic of immobilizing buses to draw attention to the need for lifts. Wheelchair users would stop a bus and others would get out of their chairs and crawl up the steps of an inaccessible bus to dramatize the issue. Interstate bus services like Greyhound were also targeted. After protests and lawsuits,

ADAPT finally saw bus lifts required by law as part of the [Americans with Disabilities Act](#) in 1990. The group began looking for the next logical step in disability rights advocacy, while ensuring follow-through of transportation provisions in the ADA. That year the group changed its name to **Americans Disabled Attendant Programs Today.**

Disability Discrimination Act 1995 in UK This was blocked by the Tory Government 16 times before it went through and even then 'it was more like a leaky sieve than a piece of civil rights legislation' according to Lord Lester. There was a huge campaign by the Disability Movement and the incoming Labour Government of 1997 committed to major tightening up. It required major amendment in the 2001 SEND Act and the 2005 Equality Amendment Act and was replaced by the 2010 Equality Act which broadens its scope but weakened existing disability rights. Even then only new buses and trains had to be accessible after 2017, not existing vehicles. London acquired accessible buses after a big struggle in 1997, 20 years earlier than legislation. Enforcement has been left to individuals in the courts. A lot of direct Action was also taken by disabled protestors to speed things up.

DAN and the Fight for Disability Rights

The Direct Action Movement started in 1992 after an anti-Telethon Demonstration. Like-minded disabled people got fed up waiting for Parliament to introduce legislation to ensure civil rights in the UK. Government preferred to rely on the good will of business. Disabled

People pointed out the systematic discrimination against them which needed 'comprehensive and enforceable civil rights legislation'. Fighting for accessible transport and then to get disabled people out of institutions

Demonstrations DAN 1 http://www.youtube.com/watch?v=ngkx8ASyWaY DAN 2 http://blogs.myspace.com/index.cfm?fuseaction=blog.view&friendId=273532537&blogId=480103791

Doug Pauley, a wheelchair user in Leeds, won a historic victory against First Group Buses for denying him access to the wheelchair bay. The case had to go to the Supreme Court brought with disability discrimination specialists Unity Law. It was ruled that a 'first come first served' policy on buses is in breach of the Equalities Act. Denial of access to the wheelchair space is one of the commonest barriers wheelchair and scooter users face when travelling by bus. Although 64% of buses in England are now physically wheelchair accessible, in terms of ramps and bays, all too often other passengers use the bay to store pushchairs or luggage.

https://www.transportforall.org.uk/ campaigns for accessible transport in London.

Despite all the legislation the price of Access is eternal vigilance and action

Disabled people around the world have been hardest hit by Covid-19 with over 60% of deaths in UK being disabled people. Our needs to be protected from risk have been largely ignored and many are again questioning our right to life. Yet the World has committed to the Sustainable Development Goals by 2030. Without our full inclusion these will not be reached and humanity will be on a steep decline to oblivion. Access is a fundamental right not an optional extra. Disabled people, our knowledge and experience is a crucial part of building back better.

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