

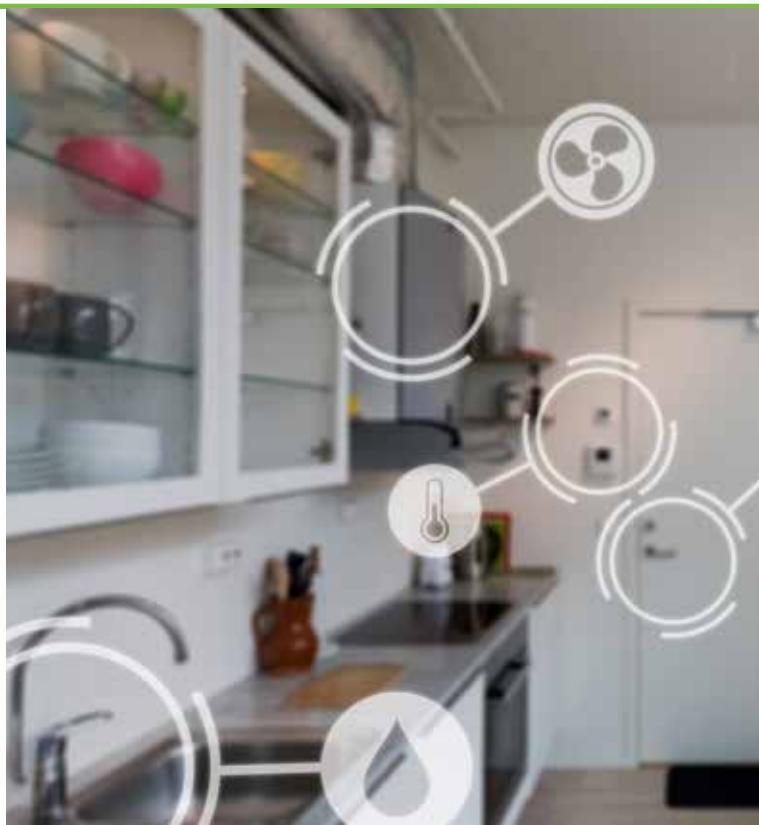
The rise and adoption of assistive technology

In modern society, the need for home, work and leisure environments to be accessible and inclusive are imperative to a functioning lifestyle. The inclusion of wheelchair accessible entrances, sensory assistance and products to help make life easier for those with a physical or psychological disability are common within healthcare. These products are designed to help the lives of those who live with visible and invisible conditions that impact their manual dexterity and movements, such as arthritis. In a fast-paced, demanding world, the prospect of completing everyday tasks, such as pouring from a kettle, doing up buttons on clothes, taking medication and turning taps, can feel daunting and frustrating, especially with a changing climate that impacts joint inflammation. These tasks can also be time-consuming for many with arthritis. Products that help with these everyday activities, and reduce physical toll and stress, can be life-changing.

Examples include button pulls, blister-pack poppers and easy-pour kettles. These gadgets are known as 'assistive technology', which is defined as "products or systems that support and assist individuals with disabilities, restricted mobility or other impairments to perform functions that might otherwise be difficult or impossible."¹ It is important to understand that not all products, while advertised as a medical device, are actually medically certified or will necessarily improve the quality of life of those living with joint inflammatory conditions. Whether they help or hinder will depend upon each individual's unique needs, lifestyle, financial limitations and living environment.

The advancement of technology and the rise of inclusive working and living spaces have improved throughout the 21st century, but the rise of assistive products has been slow. The Science Museum houses many examples of orthopaedic items created through the years, notably arthritis aids invented in the 1980s, such as a teapot stand made of plywood which makes it possible to pour tea without strain on joints.² Other examples include thick-handled cutlery and a tap turner. The designs and styles of assistive technology have changed over the years, but the theory behind them stays the same.

More recently, the University of Stirling, in collaboration with ceramics manufacturer Wade, designed a two-handled teapot to help pour those dangerously hot contents without spilling. This teapot is available to buy at Healthcare Pro, which



offers all sorts of assistive products. The Dignity by Wade ceramic collection is designed with such conditions in mind as arthritis, stroke, Parkinson's disease, cerebral palsy, multiple sclerosis, dementia and Alzheimer's disease.³

The collection is scientifically informed by research carried out by Stirling University's Dementia Services Development Centre to develop products that are easy to use and encourage independent eating and drinking.⁴ Other collections produced by Wade include Dignity Deco and Barchester, featuring brightly coloured adapted cups and bowls that stand out on the shelves, specifically for those living with dementia.

Thankfully, there are organisations which provide support and advice in choosing the appropriate assistive technology. Living Made Easy provides a range of products and information to help people understand the specific purposes of different items and where to buy them.⁵ AskSARA is an online tool offering advice, support and living aids to help make daily life manageable.⁶ This is a step towards inclusivity where manufacturers work in partnership with healthcare professionals. This type of collaboration is important in creating an environment where individuals can feel independent, and have the equipment they need to manage their condition and the impact it may have on their day-to-day activities. Stylish designs overturn the idea that functional living equipment

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must be clinical in design.

Assistive technology is an important factor in everyday life and in the workplace, but this was not always the case. The way mobility and physical disabilities are viewed has changed throughout history. During the nineteenth century, the Victorians believed that disability was not a part of society and attempted to blend differences and hide them from everyday view. For example, prosthetic limbs were created to act and take the appearance of real limbs and are not the mechanical and sleek design that they are today. It was not until 1945, following the Second World War, that the way society and the government viewed disability began to change. After 1945, with 300,000 more disabled individuals in the UK, the need for improved mobility and access was becoming a topic of concern, especially after urbanisation in towns and cities.⁷ Public spaces were inaccessible and could not cope with the needs of the increased disabled population. To address this growing need for accessibility, in 1956 architect Selwyn Goldsmith, who became disabled after suffering polio, decided to dedicate his career to tackling 'architectural disability' and challenge 'institutional discrimination'.⁷ A survey reported that public toilets were one of the most challenging and inaccessible spaces for disabled people. Goldsmith's work revolutionised how architects approached public spaces.

In conclusion, the rise of assistive technology and successive governments' efforts to increase the services available is an important step towards inclusivity. The threshold fear of entering buildings and public spaces is one that many people face with physical, psychological, visible and invisible disabilities. However, new digital technology and artificial intelligence (AI) can help develop assistive products that are stylish, functional and inclusive, in the home as well as in public spaces. The continual drive to create inclusive spaces and encourage society to recognise that not all disabilities are visible can help many feel comfortable and reduce the stress when partaking in work, leisure and everyday activities.

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