Inclusive Design: Creating Products for People with Disabilities

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Inclusive Design: Creating Products for People with Disabilities

Reading time 8 mins

Key Points

- Inclusive Design: The process of creating products, services, or environments that enable people of all backgrounds and abilities to use them
- Various strategies can be used to design products for people with disabilities; each has its pros and cons
- Strategies for creating products for people with disabilities include User-Centred Design, Universal Design, and Accessible Design
- Each strategy has its pros and cons (e.g. enhances user satisfaction but results in higher costs)
- Successful case studies where Inclusive Design has been used successfully include Lego's Braille Bricks, Google's Live Transcribe, and Pison's neuromuscular wearable devices

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There are just over 8 billion people on the planet, and we're all unique. We all want to see ourselves reflected and represented in society – especially if our age, race, gender, or ability makes us a 'minority'. Inclusive design isn't just about accommodating differences; it's about celebrating them: empathy, understanding, and a keen sense of observation are crucial. Following up on our posts on inclusive design for colour-blind people and how to make technology accessible for elderly users, we look at the strategies to consider when creating products for people with disabilities.

In the UK, over 14.1 million people are living with a disability. That's about 20% of the population whose needs are often overlooked by mainstream product design. A shift towards inclusive design not only benefits these individuals but also creates a broader, more diverse market for businesses to tap into and create opportunities for innovation.

Suggested articles

How to design accessible technologies for colour blind users

How to make accessible technology for elderly users

How prototyping and user-centred design leads to better products

What is inclusive design?

Inclusive Design is a process that creates an environment where everyone, regardless of their abilities or disabilities, can enjoy equal access to products, services, and experiences. Undoubtedly, designing products for people with disabilities is both a challenge and an opportunity: people have different -and sometimes conflicting – needs and developers can make mistakes if they've never seen how an accessible product is used in 'real life'. At the same time, designing products with inclusivity in mind maximises the chances of everyone being able to use it regardless of their ability or situational context.

Let's explore the strategies, methods, and real-world examples that demonstrate the true potential of inclusive design.

Understanding the Value of Inclusive Design

The first step towards inclusive design is understanding its immense value. It's not just about meeting the minimum legal requirements or corporate social responsibility. Instead, it's about expanding your market reach, driving innovation, and fostering an all-encompassing culture that values every individual's unique experiences, perspectives, and contributions.

In 2022, the "Purple Pound" – the spending power of disabled people and their families – was estimated to be worth £274 billion in the UK alone. Designing products and services that cater to the needs of people with disabilities can open up new revenue streams and foster brand loyalty. Furthermore, solving design challenges for users with disabilities can often lead to innovative solutions that benefit all users.

Strategies for designing products focused on inclusivity and accessibility

1. User-Centred Design:

User-centred design is a process in which end users' needs, wants, and limitations are given extensive attention at each stage of the design process. This involves incorporating users in the ideation, creation, and testing phases to ensure the product meets their needs. Microsoft's Xbox Adaptive Controller, for example, was developed with extensive input from gamers with limited mobility. The result was a versatile device that provided a better gaming experience for all users.

Pros:

- A better understanding of user needs
- Enhanced user satisfaction
- Increased chances of product success

Cons:

- Time-consuming
- Potentially high costs involved with user research and iteration

2. Universal Design:

Universal Design aims to create products that are usable by all people, to the greatest extent possible, without needing adaptation or specialised design. An example of this approach is the OXO Good Grips range of kitchen utensils. Initially designed for people with arthritis, these easy-to-grip, ergonomic tools have become popular with a wide range of users due to their comfort and ease of use.

Pros:

- The broad potential user base
- Potential for innovative solutions that benefit all users

Cons:

- Risk of "one-size-fits-all" solutions that don't fully meet everyone's needs
- Difficulty in addressing very specific or unique accessibility needs

3. Accessible Design:

Accessible Design focuses specifically on designing products or environments for people with

disabilities. A standout example is the Be My Eyes app, which connects visually impaired users with sighted volunteers via a video call to help with tasks like reading labels or navigating unfamiliar environments. The app currently serves more than two million users worldwide.

Pros:

- Meets the needs of people with specific disabilities
- Demonstrates commitment to inclusivity

Cons:

- Risk of creating separate products or experiences for disabled users rather than inclusive ones
- May not consider the broad range of abilities or disabilities within the user base

Case studies for creating products for people with disabilities successfully

1. Lego Braille Bricks:
In 2020, Lego launched a line of bricks designed to help children learn Braille. The bricks feature the same number of studs used for individual letters and numbers in the Braille alphabet while remaining fully compatible with the Lego System in Play.

2. Google Live Transcribe:
Google Live Transcribe is an Android application that provides real-time speech-to-text transcription, enabling people with hearing loss to participate in conversations. The app supports over 70 languages and dialects.

3. Pison Neuromuscular Wearable:
A wearable device that taps into the body's natural electrical system: it captures neuromuscular signals on the skin's surface, interprets how the wearer intends to move their fingers or hands, transmits those signals to a digital device, and enables hands-free control of electronics. Initially designed to help people suffering from progressive muscle loss diseases (e.g. ALS), it's now marketed for all abilities in situations where such capabilities are beneficial (e.g. virtual reality training).

Embracing diversity drives innovation and creates inclusive societies

Designing products for people with disabilities is an opportunity to embrace diversity, drive innovation, and create a more inclusive society. By incorporating user-centred, universal, and

accessible design principles, businesses can create products that resonate with a larger, more diverse audience, thereby increasing both their social impact and bottom line.

The true beauty of inclusive design lies in its potential to enrich everyone's life – a rising tide that lifts all boats, not just the mainstream ones! After all, as the World Health Organization reminds us, disability is part of the human condition, and all of us will experience it in one way or another at some point in our lives.

If you want to incorporate inclusive design into your next product, please get in touch with us. Our design and engineering team are expert solutionists who consistently exceed expectations – check out our work to learn more!

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