Choice is not an option: The experiences of people with dwarfism as consumers.

Dr Erin Pritchard
pritche@hope.ac.uk
@ErinPritchard15

LIVERPOOL HOPE
UNIVERSITY

Aims

- To understand how people with dwarfism interact with self-service facilities
    - Argue that self-service technologies further disable them
- Demonstrate how disability legislation is poorly regulated / enforced within a neoliberal society
- Demonstrate how self-service technologies can be enabling using Universal Design

Dwarfism

- Dwarfism is an impairment that results in a person being no taller than 4ft 10" (147cm).
- Average size of a person with dwarfism is 4ft (120 cm).
- There are over 450 forms of dwarfism that results in either a proportionate or disproportionate body size.
- Achondroplasia is the most common form of dwarfism and results in a disproportionate body size.
  - Torso is of average stature, whilst their limbs are of short stature.
- Worldwide, there are approximately 250,000 people who have Achondroplasia (Horton et al., 2007).
  - Achondroplasia accounts for 70% of all cases of dwarfism and occurs in one per 26,000 to 40,000 births (Little People of America, 2020).

Methods

- Interviewed 22 people, mostly women, with dwarfism living in the UK
  - Mixture of face to face, telephone and email interviews.
- Incorporated photo elicitation exercises within the interviews
  - Great for analyzing how they interact with different spaces
- Considered my own positionality as a basis for shaping the research
  - Female with dwarfism

Normalcy and the Built Environment

...there is a tendency for architects to design and construct spaces to specific technical standards and dimensions, which revolve around the conception of the 'normal' body, creating physical barriers for anyone who does not fit the conception of the normal body (Imrie, 2004: 281).
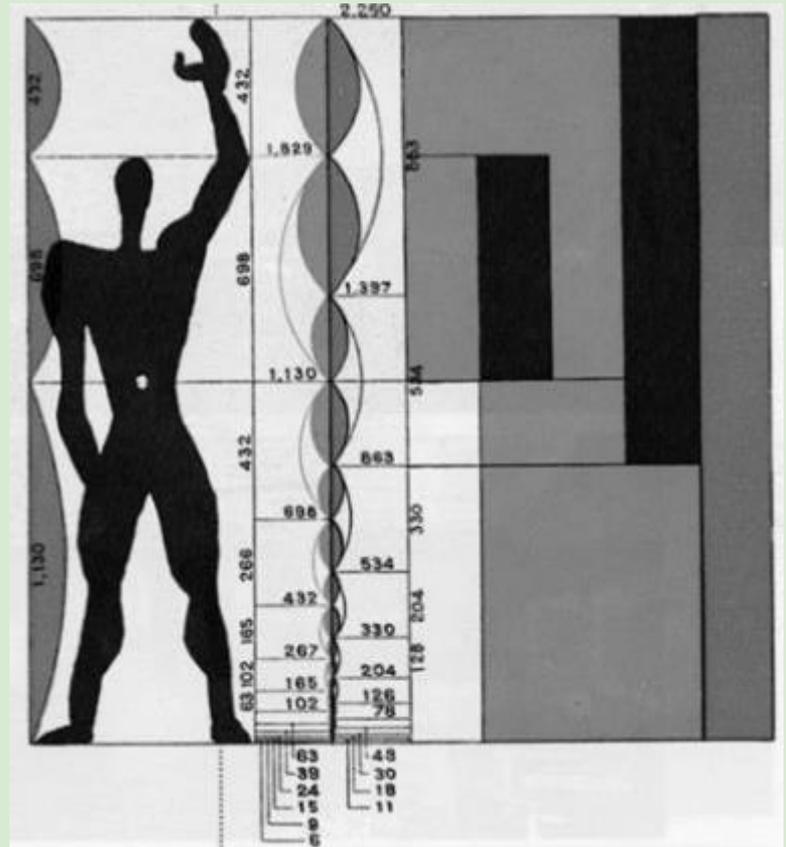
Body Size and Access

Gleeson (1999) argues that disabling spaces are a product of capitalist societies. Furthermore, Huff (2009) argues that creating products to a specific standard of size increases profits for corporations. As a result, the materiality of spaces can be disabling for people whose body size does not adhere to these average standards (Longhurst, 2010).

Social Model of Disability

Over the past forty years, disability has been argued to be a social phenomenon, created by different social processes. This conflicts with medical notions of disability, which places it upon the person. In 1975, the Union of the Physically Impaired Against Segregation (UPIAS) published the Fundamental Principles of Disability (UPIAS, 1975). The document made a distinction between impairment and disability. It argued that impairment was not the cause of disability, but rather "it is society which disables physically impaired people" (UPIAS, 1975: 3).

Body Size and Disability - "You're just little"

Longhurst (2005: 247) 'body size, shape and weight play an important role in constructing everyday social and spatial relations'.

Chan and Gillick (2009) and Tierney (2001) argue that there is a lack of understanding of disability as it is commonly thought of as comprising solely of physical limitations and which therefore ignores body size as a disability and the disabling consequences of public spaces.

Neoliberal Access

In a neoliberal society, 'minimal standards' or 'reasonable adjustments' are key terms in ensuring that costs can be kept to a minimum. A lack of accommodation raises the question of 'who belongs' (Titchkosky, 2011).

Even though the European Union has made some progress on disabilities, it has still failed to acknowledge the specific needs of people with dwarfism (EU Consensus paper on dwarfism).

Self-Service Technologies

Self-service technologies are not new. Vending machines first appeared in the 19th century, with Automated Teller Machines (ATMs) appearing in the 1950s (Darzentas and Darzentas, 2014).

Self-service technologies enable people to perform tasks with no personal assistance (Meuter et al., 2000). It is argued that self-service technologies offer a high level of service, are available 24/7, but with reduced staffing costs (Petrie et al., 2014).

With the advancement of technology, self-service technologies are becoming a more common form of infrastructure, particularly favoured by neoliberal societies.

Rise of self-service technologies
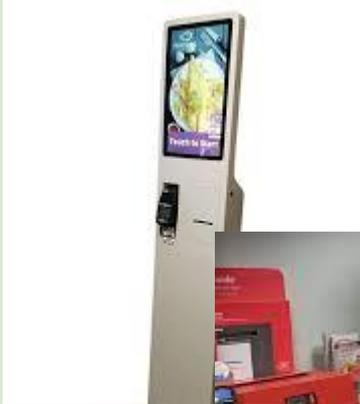
Accessing self-service checkouts

I despise those [self-service checkouts]. I find them too high. I am not very good with lifting stuff above my shoulders which is very low. I often can't see the screens. They are not clear when you are lower as they are usually wide-angle screens. When you look up the screen is usually dark, because the contrast isn't good from a wide angle. I find getting the chip and pin machine down very awkward and then also having to cover your pin is difficult. I don't like self-service machines at all (Naomi).

Dependency

No chance, absolutely no chance. I have tried to use one [self-service checkout] once, luckily enough I was with my sister because I couldn't do a thing...I couldn't reach the screen or chip and pin (Amy).

There is always somebody working there so I actually do that [use the self-service checkout] but the touch screen is too high so I have to ask somebody to assist me out or ask the person behind me to touch the screen for me (Myraar).

Doing things differently

I can't reach the touch screen and so I end up bashing it with a piece of shopping (Lydia).

If you can't reach to put in your pin number you have to get your purse out and tap it in with your purse or with a ruler that you might have in your bag or a pen. Again, these are all things that make other people look at you because you are doing it differently from what somebody would normally do (Monica).

● Can further stigmatise people with dwarfism.

Petrol Stations

...the only thing about driving that is starting to get me at the moment is the petrol pumps in garages...the pumps seem to be higher. When they are putting the new ones in because they are putting longer tubes in so that they are not missing people who can't get the pump in the right side who would just drive off to the next garage they have now put longer tubes on so that they can reach round and fill the other side of their car up. This of course means that they have got to put the pumps up higher (Amy).

...some garages have put on their pumps a choice for you to pay at the pump or in the kiosk. You have to put in your choice first before filling your car but I can't reach so I can't use any garage which has that system (Amanda).

"Accessible" self-service

Accessible infrastructure is limited and often influenced by stereotypical perceptions of disability.

It [self service scanner in the Library] complies with the Disability Discrimination Act (1995), as it is accessible for wheelchair users (Disability Support).

Enabling Self-Service Technologies

In some cases, self-service technologies can be of benefit to people with dwarfism. For example, in some casual eateries diners can order from their table using an interactive menu (Darzentas and Darzentas, 2014). This enables people with dwarfism to avoid queuing and possibly interacting with disabling infrastructure, such as high counters.

Universal Design

The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design (Mace, 1985 in Steinfeld and Masel, 2012).

- *Principle 7: Size and Space: Provide a clear line of sight to important elements for any seated or standing user* (Steinfeld and Masel, 2012).

In some cases, such as with self-service technologies at airport check-ins, they can be height adjustable (Sabatova et al, 2016). To ensure that they are accessible for people with dwarfism, the minimum height would have to at least accommodate the average person with dwarfism who is approximately 4ft (120cm) tall.

Conclusion

- People with dwarfism encounter numerous disabling barriers within the built environment. Whilst disability legislation has aided in providing some accessible infrastructure for people with dwarfism, the implementation of self-service technologies often overrides improved access. Self-service technologies are a product of a neoliberal society which bases people on their economic worth.
- Neoliberal societies favour sameness, as it is more economically viable to construct facilities that are of the same technical standards. This disables people with impairments, such as dwarfism, who require facilities to be lower in height.
- UD can aid in providing a more diverse range of enabling infrastructure

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