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The imperative for Inclusive Design

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I declare that this **Critical Cultures Research Project** is all my own work and that all sources have been fully acknowledged.

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INTRODUCTION

"The worlds of design and disability could inspire each other" (Pullin, 2009, p.1). Despite inclusivity being the latest trend in the fashion industry, the journey from where we were, to where we are now has not been easy. Design for disability has a long way to go. At the moment, the definition of inclusivity is confined to size, race and gender, but not to ones abilities. My interest in the topic peaked after my mother had an accident at work. Suffering a severe back and neck injury, she has struggled with dressing since. I looked into the adaptive fashion market to see what was available to her. What I found? A sea of beige chinos with velcro instead of zips and check shirts with magnetic buttons, all modelled by people in their sixties. (Fig.1). Most of which I found online, bar two shops in Dublin City centre where you could actually try on the clothes. The range was so limited, and appeared to be aimed at the seventy above customer base. Choice was not an option. The functionality of these garments was their sole purpose, and even that seemed rudimentary considering the scale of disabilities. Yet, what struck me the most was the banality of these garments. Muted colours, simple shapes, no print, no individuality, no creativity. To me, these clothes looked like a uniform.

FIG.1 Check shirt with velcro fastenings at the cuffs and full back opening with snap closures. Chinos with back opening and velcro fastenings. Currently on sale and available on Adaptive Clothing USA website.

We seem to associate being disabled with the elderly, yet the reality of it is much different. According to The World Health Organisation , "An estimated 1.3 billion people – or 16% of the global population – experience a significant disability today" (2022). These figures include people from all walks of life. Different ages, genders, sexualities, ethnicities and identities. Disability will affect us all at some stage in our lives, either personally or through a family member or friend. So the need for more inclusive design is crucial, but *fashionable* inclusive design. As a society we have a tendency to desexualise and infantilize people with disabilities. "On a subconscious level, we evaluate what we should wear, we assign meanings to people and situations by their dress, and we come to know what things in our culture are expressed through appearance" (Johnson et al., 2017, p.1). We believe that functionality is of the upmost importance to them, and that fashion, culture and style is irrelevant. Therefore the majority of adaptive garments are a pair of beige chinos or a checked shirt.

Until recent years, exclusivity has been in fashion. This social ostracism spanned across various sections of society and still doe. Excluding the disabled community from the fashion industry, means we are denying these people their right to express individuality through clothes. Everyone deserves that right. Very few brands have branched into adaptive wear, however the need is essential.

I will be examining the progression of inclusive design throughout the past few decades. From gender identity issues to disability and inclusivity. The successes, and the failures. I will be discussing the key aspects needed for quality universal design: extensive research, collaboration between client and designer as well as a perfect combination of functionality and style. In addition to these subjects, I will look to successful case studies of inclusive design such as *Tommy Adaptive* and *Open Style Lab*. As well as the unsuccessful, like *Zara's "Ungendered"* collection. I will clarify the necessity of adaptive wear for both moral and financial reasons. One source that I reference frequently is Design Meets Disability by Graham Pullin. This is because it was one of the only sources I could find that dealt specifically with fashion and disability, something I also realised when writing this thesis, very little is written on the subject, a problem within itself.

I will use the terms universal design and inclusive design when discussing the design of products, garments and environments that are usable by all people, without the need for adaptation. "Universal design is a search for design strategies that bring benefits for all" (Steinfeld and Maisel, 2012, p.6). The term adaptive fashion relates to garments that are designed specifically for a person

with disabilities where certain modifications are made to cater to their needs. I will use the term able-bodied when discussing people that do not require garments that need to be adapted in some way.

CHAPTER 1: THE EVOLUTION OF EYEWEAR

One of the most successful examples of design for disability is eyewear. Glasses are a perfect example of how something once seen and described as a medical device has been completely re-designed into an accessory, or part of an outfit and style. Someone who wears glasses is no longer seen or described as a patient or medical case .Yes, technically having an impairment in your vision means that the person is restricted in some sense, but as a society we no longer view wearing glasses as shameful or weak.

With brands such as *Marc by Marc Jacobs, Gucci, Ray-Ban, Tom Ford and Prada*, designing over-sized, colourful, fashion forward stylish eyewear that is meant to be seen. In this sense, the wearer becomes a consumer, not a patient. "Collections labels, brands, these words set up different expectations and engagement from consumers. And consumer is a long way from patients or even users" (Pullin, 2009, p.1). I argue that the influence of fashion, culture and considered design has changed the meaning of eyewear, as well as what it says about the wearer. So when did this change happen? And how?

The first known pair of wearable glasses date back to the thirteenth century in Italy. Paintings from the renaissance era are our best evidence that these glasses existed. A series of frescos by painter Tommasso de Modena depict a cardinal at a writing desk with wire spectacles balancing on his nose for support. The innovations in eyewear technology grew with the add - on extensions that go over you ears and bifocal lenses in the seventeenth century, as well as cylindrical lenses for correcting astigmatism in the nineteenth century. Then, there was the introduction of coloured and plastic lenses in the twentieth century.

The common thread throughout these periods is how wearing eyeglasses was seen as mortifying and unfashionable. "In France in the eighteen twenties the notion was that spectacles should be 'invisibles'" (Handley, 2011, p.16). As Graham Pullin writes in Design Meets Disability, (In 1930's Britain), "Glasses were considered social humiliation, yet the health service maintained that its glasses should not be styled but only adequate." (2009, p.16). However in the nineteen-seventies there was a shift. Designers such as *Nina Ricci, Dunhill, Carrea. L'Amy,* and *Dior* spearheaded the

way for cool, contemporary eyeglasses. There was a realisation that glasses could come in different shapes and sizes. New styles were created such as the butterfly glasses, a symmetrical design inspired by the shape of butterflies. We also saw large thick rimmed square glasses, famously worn by Buddy Holly, the polar opposite to the thin wire frames previously sold, and double bridge glasses. Teardrop shaped frames influenced by aviator glasses also emerged. All of these designs were carefully crafted with the fashion trends of the time in mind and were wildly popular. Suddenly the functionality was no longer the sole purpose, the actual look of the glasses became more important as time went on. "Far from being a 'distress purchase', shaming their wearers, spectacles now contributed towards retail therapy." (Handley, 2011, p.17).

Cultural influences such as film, tv and celebrities have also perpetuated this growing trend of stylish eyewear. For celebrities like *Elton John, John Lennon, Will.I.am* and *Zooey Deschanel*, their glasses are part of their identity and part of their 'look'. We associate their faces with glasses, so far as to say that without them their image would be unrecognisable or alien. Models like *Gigi and Bella Hadid* and *Karlie Kloss* are photographed in famous fashion magazines like *Vogue, Cosmopolitan* and *Harpers Bazaar* with in-depth articles written alongside called 'Get the Look'. These articles inform readers where to get her shoes, her jacket, her *glasses*. Celebrity culture has helped to move eyewear from "debilitating" to aspirational.

Glasses and their wearers have been glamourised and fetishised in film, tv and common high street brands too, with the global phenomenon that was "Geek Chic". From the beginning of the mid noughties, the 'geek' look was everywhere. T-shirts and jumpers branded with "GEEK', "NERD" or "DORK" were sold in well known high street stores like *Topshop* and *Primark* (Fig.2). The sales of fake or pano black thick rimmed glasses soared with celebrities such a *Justin Bieber* and Glee star *Finn Hudson* wearing them. Stores like *Claires Accessories, H&M* and *Zara* sold them in their thousands and are still doing so. 'Fake hipster' glasses as they came to be known, were everywhere.

The stereotypical 'geek' was the image and character associated with glasses. Think about how many films and TV shows that have a 'geek' character. Almost every movie until fifteen years ago has a stereotype 'geek' with glasses character. Their role: comic relief. Teen TV shows on the channels *Disney* and *Nickelodeon* were especially notable for this. However, this was not a positive image for young children and teenagers to see. What the glasses character was portraying was a 'loser': a weak person with no friends or any chance of a love interest, and was to be laughed at.

FIG.2 Topshop 'Geek' t-shirt. Initially on sale in 2013, the item is no longer in production.

This image largely sums up societies' attitudes towards glasses wearers at the time. However, in the the mid 2000's these characters began to change and attitudes towards them did too. Now, these characters symbolised intelligence and motivation. Tech and craft became cool. Shows like The Big Bang theory, The IT crowd and Freaks and Geeks became massive successes and the image portrayed, although still slightly comical, was much more positive and aspirational.

> *Though geek first appeared as a kind of anti-fashion statement, it's becoming bound up with entrepreneurialism, self-motivation and independence instead of weakness. Knowledge and craft and detail are cool again. It's about Ted Talks and Brian Cox – or even The Great British Bake Off – more than The X Factor* (Harrison, 2013, n.p.).

The glasses wearer was no longer an outcast, but the insider. "Geek hasn't beaten the mainstream, it's the new iteration of the mainstream" (Harrison, 2013, n.p.).

Today, "over four billion adults wear glasses", with millions of these wearing non prescription glasses (The Vision Council, 2021, n.p.). If we used this example of fashion carefully and purposefully designing for and with disability in other ares of fashion, success of garments made for disability would be huge. We need collaborations between designers and engineers, tailors and occupational therapists and work with the wearers themselves. It would be necessary to market these products in a way that is considerate and sensitive, yet fashion forward and daring. By doing so, universal or inclusive design won't just be thought for the 'disabled' but for the mainstream. By

advertising and designing glasses in a way that is cool and inclusive, societies attitude has changed to how we view them. "If we are serious about emulating the success of spectacle design in other areas, we need to involve fashion designers, inviting them to bring fashion culture with them"(Pullin, 2009, p.23). By using this exact same perspective with other products, devices and garments for disability, the advancements would be staggering.

CHAPTER 2: CASE STUDIES

1. Tommy Adaptive - Tommy Hilfiger.

There are several brands that are beginning to design more inclusively, and a few advocates for change that I will be discussing. In order to create garments that are stylish, creative, functional and genuine, a serious amount of planning and thought is needed. Trialing and consideration is essential .The key to this is designing with the wearer in mind, "not designing for all but with all" (Burke, 2017, n.p.). One needs to understand the challenges that people with disabilities face. One brand that has successfully done this is *Tommy Hilfiger.*

The *Tommy Adaptive* clothing collection is tailored to meet the needs of people with disabilities. Having had first hand experience while raising his children who has autism. He noticed his daughter struggling with buttons and shoelaces. Inspired by this, he started a collection designed with the wearer in mind, collaborating with nonprofit organisation Runway of Dreams. Its creator, Mindy Scheier, was also inspired by her son Oliver, who has Muscular Dystrophy. He dreamed of wearing jeans like everyone else and so she adapted a pair for him using a rubber band around the button for instant stretch. This sparked an extensive research project into adaptive clothing and Runway of Dreams was launched. A collaboration with *Tommy Hilfiger* soon followed and the collection was made.

Described on the *Tommy Hilfiger* website as "stylish, high quality clothes that work for you" (2023, n.p.), the collection consists of a range of casual day wear for men, women and children that still encompasses Hilfiger's signature style. "The priority for design for disability has traditionally been to enable, while attracting as little attention as possible. The approach is less about projecting a positive image than about trying not to project an image at all." (Pullin, 2009, p.15).

However, Tommy Adaptive still has an image: The *Tommy Hilfiger* image. It still celebrates the classic preppy American look but the fastenings for jeans, tops and shirts have been adapted for ease. Velcro, one handed zippers, magnetic buttons and hook and loop closures are used to aide the wearer. Combing both style and function, the collection that was launched in 2016 was a roaring success. This is one of the key elements needed in creating a successful inclusive fashion line; the ability to combine thoughtful design with style. Another element of success was the amount of careful, considered and sensitive research that has gone into Tommy Adaptive. In an interview with Vogue Business he says his team was "able to draw on its athletic wear experience, which has a similar focus on movement, performance and functionality, to create its collection" (Webb, 2021, n.p.).

The brand has also committed to expanding its collection to two a year, meaning more research will be done, and has expanded availability worldwide, including Europe, Australia and Japan in 2020. The collection is extremely user friendly, both the garments themselves and the website down to the actual packaging. The website uses specific colours and layouts designed to aid with various levels of cognitive and auditory processing. Animations, videos and voice navigation tools are offered too, fully supporting the customer and catering to a variety of needs. Online support staff are on hand twenty four seven. Free shipping is available to the consumers as well, with the packaging pre - glued and resealable for ease.

The reviews speak for themselves. Customers write on Amazon " Thank you Tommy Hilfiger for making adaptive clothing so stylish!!","Makes life easier for people with disabilities" and "Comfortable, intuitive and fashionable." These are a few among the thousands of five star reviews written online. What these reviews signify is that great inclusive design is about a perfect union of engineering and fashion forward of design. Functionality is no more important than style when it comes to this collection, and that is what its consumers appreciate about it.

People with disabilities still want to feel like they are part of something, and that is exactly what fashion is selling. Fashion sells a lifestyle, a movement, a culture. The emphasis does not and should not exclusively be on how the garment works and how it aids some disability, but should also be about what the wearer wants to express and feel. Like anyone buying into a brand , we're buying into a culture that we want to identify with too. "The focus is not on age or disability, although these are very important issues, but on inclusivity at a social level, and achieving that

through a range of products and services that together accommodate the whole population without stigma" (Clarkson and Keates, 2003, p.10).

2. Open Style Lab

However, as successful and brilliant as this collection is, it does not solve every issue. "Populations of people with disabilities can be every bit as diverse as society in general" (Pullin, 2009, p.33). Adaptive as it is, the garments are not fully inclusive to every type of disability, that would be impossible in terms of functionality as well as style. Not every person will identify with the preppy, all American look that's so renowned with *Tommy Hilfiger*, and the adaptive range will only cater for certain types of disabilities. One company that has a strong solution to being more inclusive is *Open Style Lab*, through accessible products and accessories that alter garments.

Established in 2014, *Open Style Lab,* or *OSL*, is a non-profit organisation founded by Kieran Kern and Irene Park. The company is dedicated to "creating functional, wearable solutions for people of all abilities without compromising style" (Kern and Park, 2023, n.p.). With a team of designers, engineers and occupational therapists, *OSL* develops garments, accessories and a range of other commodities, both with and for the wearer.

There are two key factors here that make these products work: The first being the combinations of various backgrounds in their workforce. The knowledge from the engineers means the functionality of the products is sound and physically well constructed. First hand experience from the occupational therapists means sensitivity and understanding goes into each design. The fashion designers bring culture, aesthetic, fabric and pattern cutting knowledge to the pieces, as well as identity, which is essential when designing garments.

"Dress is also a reflection of our mentifacts, or our guiding beliefs, mores and values that shape culture; and our sociofacts, or social institutions and norms that direct human behaviour" (Johnson et al., 2017, p.1). The purpose of clothing is to make the wearer feel amazing and to connect and create a sense of belonging. This collaboration is unusual, however crucial when we are designing for people with disabilities. Specialist garments like these require a level of expertise and understanding in order to be both functional and fashionable. Stylish wearables that fuse aesthetics with technology mean the wearer does not have to choose between feeling and looking medicalised, or being frustrated due to the garments lack of functionality.

"Certainly fashion designers are rarely part of teams even developing wearable medical products, which is incredible considering the specialist skills they could bring as well as their experience and sensibilities" (Pullin, 2009, p.23). The influence of fashion designers on adaptive clothing means the wearer is empowered through independent dressing and knows their own style has not been comprised through its performance.

The second key factor is that *Open Style Lab* designs with the wearer as well as for the wearer. Through extensive research and workshops, online classes, panels and corporate collaborations, *OSL* is constantly educating themselves and the public. *Open Style Lab* has partnerships with many companies from various industries. Such as Macy's, Muscular Dystrophy Association, Microsoft, Ikea and The Woolmark company . One programme they run is called the *OSL* Summer Programme. "The program provides a diverse community to learn about inclusive design, adaptive fashion and collaborative research with people with disabilities" (Kern and Park, 2023, n.p). Both student and professional designers are teamed up with people with disabilities to co-create prototypes and toiles of new potential products. At the end of the programme, all of the design projects are shown to a panel of lecturers, mentors and judges from varying industries. The showcase is open to the public.

Often accessible garments, accessories and products are created by designers without concerning the group of people they are designing for. The result is "a severe disconnect between how able-bodied people perceive accessibility needs, and what disabled individuals actually need" (Kern and Park, 2023, n.p.). This can often result in not actually meeting their targeted groups specific needs. "Abled-body people must understand how they render people with disabilities helpless before knowing their capabilities" (Ellington and Lim, 2017, p.173). By designing with their clientele, the products are catered exactly to what the person needs and likes.

As mentioned above, the brilliance of *Open Style Lab* is that not only do they make adaptive garments and products, they have also created tools that alter garments that were initially designed for the 'able - bodied'. The Hack-ability Toolkit was designed in 2019 during a summer programme they were running (Fig.3) The team consisted of *OSL* designers and a group of teenage girls from the NYU Langone Initiatives for Women with Disabilities (IWD). Each of the girls have a spinal cord injury. The aim of the project was to understand how fashion effected their identify and self esteem, and how fashion designers can help influence that.

The research focused on three elements: "The agency of our disabled collaborators, making as a form of learning STEM (science, technology, engineering and math) through fashion, and product design to create tools that alter or "hack" clothing" (Kern and Park, 2023, n.p.). Again, *OSL* is designing with their target audience to really understand the exact difficulties of dressing. Through this programme the girls got the chance to learn about sewing and were made a part of the alerting process, all while teaching each other about inclusive design. It became evident that there are four main faults when it came to clothing made inclusively for the 'able - bodied', i.e clothing that could be bought it on the high street.

These include:

> *1) Lack of sturdy fabric for disabled wearers to pull on with force when putting on or taking off clothing.*
>
> *2) Excess fabric (for dresses, skirts, puffy sleeves, etc.) gets caught up in wheel-chairs.*
>
> *3) A lack of pockets for wearers to hold their smart phones in accessible locations on their bodies.*
>
> *4) A Lack of accessible sewing tools for disabled people to be part of the DIY cloth-ing alteration process.* (Su, 2019, n.p.)

Based off of these findings, various tools were created to help improve these difficulties. The Loop Hack - 'Large' is an elastic strip with adhesive at each end, all black. The wearer sticks or sews this strap on the back of any garment on the inside. The purpose is to help the wearer grab the garment easier when putting it on, helping people with lack of mobility. The Loop Hack - 'Small' is designed to stop skirts or dresses getting caught in the wheels of wheelchairs, and to prevent skirts or dresses flying up in the wind. A similar idea to the previous tool, a small piece of black elastic with adhes-ive can be stuck to the underskirt with a small loop hanging out. A small hook is inserted into the foam cushion of the wheelchair and the loop is attached to the hook. The pack also features DIY pockets that can be added anywhere to previous owned garments or new ones, and an adaptive needle threader. All tools comes with detailed instructions and videos on how to use them on the *OSL* website. The toolkit is well developed due to the collaboration of designers and clientele, which plays a pivotal role in adaptive fashion. It is also sustainable as it is cost effective and cheap for its consumers to purchase. Open Style Lab recognise that thoughtful, well engineered design can

help to empower, and that the problem lies within the design and environment, not the user. "If people can be disabled and excluded by design, they can also be enabled and included by thoughtful, user-aware design" (Clarkson and Keates, 2003, p.1).

FIG.3 The Hack-ability Toolkit. Developed by *OSL designers in collaboration with* NYU Langone Initiatives for Women with Disabilities. Currently on sale on the Patti and Rickey website. Price: 65 U.S Dollars.

3. Zara

Brands endorsing inclusivity has become the norm, and as I have mentioned with the development of eyewear, *Tommy Hilfiger* and *Open style lab*, can be extremely successful. But how legitimate are all of these campaigns? Are some brands jumping on the bandwagon of inclusivity without pulling it off? "Examples of poor inclusive design are everywhere. Many products present unnecessary difficulties for many users" (Clarkson and Keates, 2003, p.2) One example of this is Spanish high street brand *Zara* with their 'Ungendered' collection. Launching in early March 2016, the collection had positive intentions. The idea was to expand its customer base from men and women, mainly younger between the age bracket eighteen - forty, to a more inclusive and diverse one. "If we design a product with openmindedness and inclusiveness, it can have an expanding range of uses. If we design for one body, it will need to be retrofitted to work for any others

(Dolmage, 2017, p.124). It was specifically aimed at people who identify as gender fluid or who simply want to play with their sexuality through garments.

"A key aspect of the inclusive approach is to expand the target group of a product or service to include as many users as possible, without compromising the business goals of profit and customer satisfaction" (Clarkson and Keates, 2003, p.10) . This was a huge step for inclusive design as *Zara* is arguably one of the most influential fast fashion brands at the moment, being ranked in forty seventh place by Best Global Brands in 2022. In an article written in *Forbes, Zara* is described as extremely customer orientated, "For Zara, it is all about the customer - experiences for the customer, exchange with the customer evangelism through the customer and being every place for the customer. Zara makes customer experience king" (Danziger, 2018, n.p.). Keeping this mantra in mind, 'Ungendered' was created, expanding its customer profile. The collection consisted of eight pieces: plain T-shirts, hoodies, sweatpants and jeans, tank tops and shorts, all priced under fifty U.S dollars, in either grey, white or beige. Simplistic was obviously the brief, however, unseen and inconspicuous are the words that come to mind. I believe that this is why this collection failed, and I am not alone in this view: the collection received a huge amount of backlash upon its release.

The whole idea was to celebrate and embrace the idea of clothing without gender, rejecting social norms and roles that the fashion industry and culture has always pushed on its consumers. "While what is considered masculine and feminine is subject to change, people are socialised to view items of dress as masculine and feminine" (Johnson et al., 2017, p.255). The public took to social media to criticise the brand, with one Twitter user saying "If Zara actually wanted to release an 'Ungendered' clothing line they could just take the words 'men' and 'women' off their current lines." I agree in that true 'ungendered' clothing would have no restriction or labels, that the customer, no matter their sex or identity, could freely choose what they want to wear. However , *Zara* made the decision that 'ungendered' means neutral, as proven by the colour platte and sizing of the garments: muted and oversized.

Zara made the mistake of thinking that someone who is gender fluid or simply wants to play with the ideas of masculinity and femininity wants to tone themselves down or make themselves more visually favourable and mild for society. The unintended message was while their sexuality is something they want to explore and express, it should be in a safe and neutral way, thus represented

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by the muted colour palette and safe, everyday, recognisable garments such as the oversized tees and sweatpants. "Attempting camouflage is not the best approach and there is something undermining about invisibility that fails: a lack of self confidence that can communicate an implied shame" (Pullin, 2009, p.17). Although here Pullin writes about this idea of disguise and concealment in the context of design and disability, the same applies for inclusive design. In the case, the *Zara* collection, and designing for gender fluidity.

Is making something look neutral or safe trying to the send the message that we as a company are unbiased, unprejudiced and that functionality is more important to you the consumer than the visuals and aesthetic? Perhaps by using colours that are inoffensive and garments that are harmless and unremarkable, they are trying to appeal to a wider audience, or is it solely for monetary benefit? " The whole range reeked of a marketing scheme to tap into the current profitability of gender politics; this was unisex dressed up in a seemingly progressive new label." (Allwood, 2016, n.p.) Similar to greenwashing for sustainability, is 'Ungendered' a marketing ploy to convince its customers that they are inclusive? Is *Zara* pretending to be an ally for the gender fluid, LGBTQ+? Either way, could this still be perceived as a win for inclusive fashion? After all, any exposure is good, and regardless of the intentions the fact that collections are being created for a more inclusive audience is a positive thing.

However, it was clearly offensive to some members of the public and its objective and positive message failed to land. By making a collection as neutral as this in order to reach as many people as possible, they failed to reach any, as how could you relate to something so soulless, so mundane. "But this tendency to try be all things to all people can lead to complex, compromised and confusing products" (Pullin, 2009, p.5). Perhaps by trying to be inclusive, they tried to include too many and as a result created a diluted version of something meant to be daring.

CHAPTER 3: FINANCIAL BENEFITS OF INCLUSIVE DESIGN

> There *is a confluence of factors generating the need for more universally designed products, environments, and, amenities - it includes the competitive, global nature of business today, flourishing communications technology industry, the international disability movement, and the rapidly growing ageing and disabled populations all over the world* (Wolfgang, 2001, p.3).

Disability will affect almost every one of us of us at some point in our lives, either personally or through a family member or friend. "Everyone is likely at some time to experience the misfit between themselves and their environment" (Wolfgang, 2001, p.3). According to a recent study by UNUM corporation, a life insurance company in the U.S, most people estimate they have only a 16% chance of becoming disabled during their working years. However, the likelihood of developing a disability is much greater. According to their research:

1) *If you're under the age of 35, there is a one in three chance that you will be disabled for at least six months during the course of your career.*

2) *Men have a 43% chance of becoming seriously disabled during their working years.*

3) *Women have a 54% chance.* (Reich, 2022, n.p.)

Another study conducted by the Centres for Disease Control and Prevention shows that the two main groups where disability is most common are women and the over sixty fives (2022, n.p.). Yet despite these figures, the fashion industry has no market place for inclusive design. My argument is that universal or adaptive fashion is smart business. This huge market has been left untapped. "Our youth craze only produces youth commodities. There is no room for universal things, no market, no target group" (Herwig, 2008, p.12). I have mentioned above the reasons why designing inclusively is so important in terms of human factors and morals, but the financial incentives alone should be enough for any business. As reported by ", the global adaptive fashion market is expected to be valued at $400 billion dollars by 2026" (Gaffney, 2019, n.p.). Sinead Burke, a major advocate for inclusive design, talks about the economic value in adaptive fashion in the "Business of Fashion Voices talk - Designing for disability ". In this talk, she postulates a far higher market value and states:

How much discretionary income do they have to spend?1 trillion US dollars. And then you include their family and their friends. That's 6.9 trillion dollars. You want you a reason to embrace the disabled community and look for a market in which you can explore and be creative? There it is (2017, n.p.).

These numbers illustrate people with disabilities represent a significant market segment that is yet to be explored. Fashion is a symbol of creative expression. It is a way to communicate ones feelings

and visually voice things about your personality without having to say anything. By buying garments we are buying into cultures and communities that we identify with. "One way we form and express our identities is through consumption" (Johnson et al., 2017, p.234). Yet through the lack of available products people with disabilities don't have that right. This is not only unethical, but completely illogical from a business perspective. The amount of profit that could be made by designing more inclusively, is immense. I am not saying it would be easy by any means. One collection will not solve every garment issue for each and every disability. However clearly this is a market that has been seriously neglected , and the need for adaptive garments and products is long over due. Even introducing a capsule adaptive collection into their range, a brand could increase their customer base exponentially. Due to so little brands and companies supplying inclusive clothing, any brand with an adaptive range would be one of the few places that offer it, making them a necessity. Therefore their customer base would only be shared among the select few brands that offer universal design, increasing profit and making them vital to their clientele.

So why don't brands design more inclusively? "Research has shown that while many companies agree with the principles of designing, inclusively, they consider it impractical for them to adopt such practices" (Clarkson and Keates, 2003, p.1). In Countering Design Exclusion there are several factors listed on why companies deem universal design non viable. These include:

> *1) Insufficient financial resources/time*
>
> *2) Inadequate access to product users*
>
> *3) Inexperience in dealing directly with users*
>
> *4) A lack of demand from commissioners of the designs* (Clarkson and Keates, 2003, p.1)

For many companies, designing universally is a whole new world, and maybe the fear of the unknown and delving into something so sensitive is enough to not do it. Sufficient time, research and access is vital. *Open Style Lab* has proven designing with the client is crucial in order to create something both functional and contemporary. Many brands will have inexperience in working with this specific customer. However the fashion industry will only improve if we make these adaptations, and change our fixed ways of designing to include a broader range of people. From brands like *Tommy Hilfiger,* we see how beneficial and imperative adaptive

wear is. A lack of demand is an excuse. The market is out there and they demand they be included in fashion design. People with disabilities need to be seen and treated as valuable customers.

They aspire to active participation within the mainstream of society, reject the dependency and institutionalisation that were the norm for much of the last century, and are beginning to assert themselves as consumers who control significant amounts of disposable income (Clarkson and Keates, 2003, p.1).

CONCLUSION

Inclusive design is imperative. Fashion brands are starting to acknowledge the need for more inclusivity, yet we have only scratched the surface. Racial diversity, body positivity, gender issues and sexual identities are beginning to be addressed. All of which are fundamental topics that need to be further explored and recognised in fashion. However representation for the disabled community is seriously lacking. "As one of the major groups suffering the consequences of design exclusion, it is important to a gain a better understanding of their lifestyle needs and aspirations" (Clarkson and Keates, 2003, p.1). We need brands to start recognising that successful universal design is possible. This is proven by the evolution of eyewear. An object once seen as the symbol of weakness and discomfiture, has been completely transformed into a *fashionable,* smart accessory. This renewal can be attributed to comprehensive design, extensive research and the influence of fashion. Now, "the global eyewear market, which is made up of spectacles, contact lenses, sunglasses, and other eyewear products, is forecast to reach a value of roughly 323.8 billion U.S. dollars by 2030" (Smith, 2022, n.p.).

Tommy Hilfiger and *Open Style Lab* are paving the way for the future of fashion. Validating the needs of people with disabilities, these companies recognise this community as respected, valuable consumers. By designing *with* the wearer, the *Tommy adaptive* range caters beautifully to the requirements of its clientele . All, while maintaining its signature classic American style, which their customers adore. *OSL* prevail to solve obstacles around dress for many. Through a strong cross-disciplinary approach to research, *OSL* have created intelligent, physically sound and stylish looking accessories and garments for their consumer. Collaborations between designers, engineers, occupational therapists and people with disabilities continue to educate, and the fashion industry needs to take more notice.

However not every brands attempt into inclusivity has been successful, as shown by *Zara's* 'Ungendered.' The gender neutral campaign failed for many reasons. The motivations behind the collection were admirable, however through lack of understanding of their customer, their good intentions were lost. *Zara* misinterpreted 'gender neutral' as bland and unremarkable, in order for it to apply to as many as possible. Yet through dull, muted colours and nondescript forms, the collection implied a sense of camouflage, suggesting that gender fluidity is something to hide. A common mistake throughout inclusive design.

Despite the obvious needs that I have discussed, inclusive design has yet to fully enter the mainstream. "Certain companies, especially within the youth/young adult fashion industry, feel that they do not wish to sell products to less able customers" (Clarkson and Keats, 2003, p.2). This is for reasons such as: lack of experience with the customer, insufficient finances, time pressure and lack of demand. Fashion has the ability uplift us, to make us feel empowered and beautiful. By excluding the disabled community from fashion we are denying them this amazing source of creativity. That's not right.

Society needs to accept that disability will be something the majority of us will eventually face, either personally, or through a family member or friend. Disability is part of a normal life course. Instead of thinking of inclusive design in the context of disability, we need to create universal designs to aide everyone. "It has become clear that many required "accommodations' could be designed to benefit everyone" (Lidwell, et al., 2003, p.14). After all, if there is a way of reconditioning a product to where it is easier to use or functions more efficiently, wouldn't that be better for everyone? As time goes on, hopefully the fashion industry will begin to accept the clear demand for inclusive design. The brands and advocates I have discussed are a promising and uplifting start to a new era of fashion, a more all embracing future. "Perhaps there might one day be wheelchairs at Milan" (Pullin, 2009,p.5).

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