Dress, Dignity, and Disability:
Promoting Authentic Disability Representation in the Global Business Sector

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In Partnership with the Valuable 500
I. INTRODUCTION 3
II. PROBLEM STATEMENT 3
III. LITERATURE REVIEW [refer to Appendix A for annotated bibliographies] 4
   A. Question 1 - Summary of Academic Research 4
   B. Question 2 - Summary of Private Sector Research 5
IV. CASE STUDIES [refer to Appendix B for in-depth case studies] 5
   A. Jaguar Land Rover 5
   B. Lime Connect 6
   C. L’Oréal Groupe 6
   D. Lancôme 7
   E. Procter & Gamble 7
   F. Sony 8
   G. Zalando 9
V. GLOBAL SURVEY WITH OPEN INCLUSION 9
VI. GUEST SPEAKERS: LESSONS LEARNED 11
   A. Yushi Zhang 11
   B. Quemuel Arroyo 12
   C. Grace Jun 12
   D. Andraéa LaVant 12
   E. Mindy Scheier 13
VII. OUR RECOMMENDATIONS 13
VIII. LOOKING FORWARD 14
IX. APPENDICES 15
APPENDIX A: LITERATURE REVIEW 15
APPENDIX B: CASE STUDIES 24
   A. JLR 24
   B. Lime Connect 26
   C. L’Oréal Groupe 28
   D. Lancôme 30
   E. Procter & Gamble 32
   F. Sony 37
   G. Zalando 39
I. INTRODUCTION

Disability inclusion is a pressing global concern, sitting at the crossroads of policy, economics, and social justice. With 1.8 billion individuals living with a disability—forming the world’s largest minority group—comprehensive and inclusive policy-making is not just a social responsibility but an economic imperative. Despite comprising one in four individuals globally, this demographic often remains sidelined in Diversity, Equity, and Inclusion (DEI) discussions.

The current state of disability inclusion reflects a gap in representation. In many instances, the needs and rights of people with disabilities are relegated to mere footnotes in organizational DEI statements, if they are acknowledged at all. This underrepresentation has profound implications, impacting both social and economic inclusion. The lack of authentic representation leads to ineffective or non-existent policies and results in marketplaces that neglect the needs of a significant global population.

The exclusion of people with disabilities carries substantial financial ramifications. They command a combined disposable income of 1.9 trillion dollars, with a collective spending power, including friends and family, reaching a staggering 13 trillion dollars. Recognizing their economic significance, people with disabilities deserve proper representation in the market.

Integrating disability inclusion into core policy and market strategies is not just a moral imperative but a strategic economic decision. Embracing disability inclusion holds the potential for innovation, market expansion, and societal advancement. The call to action is clear: global actors must prioritize weaving disability inclusion and authentic representation into the fabric of economic and policy frameworks, unlocking the untapped potential of this significant portion of our global community.

II. PROBLEM STATEMENT

Our client was The Valuable 500, a global business partnership of over 500 companies working together to end disability exclusion. Specifically, they aim to unify the over 500 companies in disability inclusion efforts to benefit the one in every four of us with a disability. The Valuable 500’s impact is far-reaching with over 500 companies signed on to their mission, covering 22 million employees with 23 trillion dollars in market capital. Some of the leading companies that have signed on to the Valuable 500’s mission include Apple, Google, Microsoft, and P&G. The organization's work is devoted to three pillars: Leadership, Accountability, and Representation.
We worked directly with the client, meeting twice on campus with the Valuable 500's Chief Community and Programmes Officer, Stephane Leblois, who provided us with the project brief at the beginning of the semester and evaluated our findings at the semester's close. We also worked directly with Maciej Stryjek, the group's Interim Head of Marketing, who participated in our London and Paris Field Study. Our capstone’s research goal was to define authentic representation and advise the Valuable 500’s companies on how to move forward with this.

We have defined authentic representation as comprising of three core pillars:

1. **Dignity**, which means that people with disabilities are viewed as humans first and foremost. Disability is not defining.

2. **Diversity of disability**, advocating for a wide range of visible and invisible disabilities to be accounted for.

3. **Dialogue**, which emphasizes active communication and collaboration between companies and people with disabilities themselves.

### III. LITERATURE REVIEW [refer to Appendix A for annotated bibliographies]

To address the issue of authentic disability representation, we first conducted a literature review with the purpose of answering two questions: 1) how well is the global business sector currently performing in inclusive representation? and 2) what guidance, tools, and resources do businesses use to inform their work in inclusive representation? Our findings primed us to conduct fieldwork and quantitative analysis.

#### A. Question 1 - Summary of Academic Research

Recent academic and market research on the performance of the global business sector in inclusive disability representation reveals that while the sector has experienced increased representation in recent years, there is a long road ahead. In other words, the global business sector has made strides in inclusive disability representation, but exclusion, rather than inclusion, dominates the story of disability representation. This exclusion is a consequence of a lack of education surrounding disability and of limited resources (e.g. larger businesses are able to focus on disability inclusion more than small businesses because of the resources at their disposal).

Further, the literature reflects the idea that disability representation has become one-dimensional, and intersectional perspectives on the topic would be a useful way to push representation within the disability community. It is extremely important to note that the literature agrees that...
increased disability inclusion in the global business sector will have universal benefits, encouraging more research in this area and taking action on the conclusions outlined in the literature.

B. Question 2 - Summary of Private Sector Research

Overall, many companies seem to have “DEI” structures in place, at least on their websites. Some notable examples are at consulting firms such as Accenture, McKinsey, and Bain. In this space, we found that there are a few reports that exist and dominate the disability discourse in the private sector (albeit they are limited and rarely mention disability explicitly). Notably, the McKinsey report is about the importance of DEI but fails to mention “disability” anywhere within its pages.

Accenture stands out as the company with the most research and money behind its disability inclusion; it has been involved in the development of several key reports on how and why companies should engage with and uplift people with disabilities. The “trend” of increasing awareness surrounding disability inclusion has certainly grown more profound over time, but the majority of suggestions and reports are hypothetical rather than actionable.

It would be interesting to do more research on whether these suggested structures are implemented, and if so, how effective they are in making more inclusive workplaces.

IV. CASE STUDIES [refer to Appendix B for in-depth case studies]

Over the course of our intensive Field Study in Paris and London, which took place over fall break, we interfaced with senior executives from V500 partner companies to discuss relevant challenges, opportunities, and solutions in disability inclusion. In-person meetings were conducted with L’Oréal, Zalando, Procter & Gamble, and Jaguar Land Rover, with virtual reporting from Sony and LimeConnect. Product innovations from the consumer brands, showcased in the following executive summaries, are key examples of industry-leading approaches to inclusive strategy.

Relevant V500 Pillar(s): Universal Representation & Product Design

A. Jaguar Land Rover

JLR Point(s) of Contact:
  ● Joanne Peterson, Global Customer Insight Director Communications & Insights Centre of Excellence, Commercial
Jaguar-Land Rover’s new inclusive design strategies have been developed with the needs of disabled communities in mind. Learning from two extensive case studies with riders that have a variety of needs, such as an Emergency Chauffeur feature in cases where the driver needs to assist a passenger in distress as well as Thermo-Regulated Storage options.

Despite significant advancements in automotive technology, there remains a glaring lack of inclusivity in the accessibility of vehicles for disabled riders. The current market offerings fail to adequately cater to diverse mobility challenges, limiting the options available to this demographic. Companies in the space must strive to create a transportation landscape that is universally accessible.

Working alongside Studio Exception, an inclusive innovation consultancy, JLR has begun to leverage The Exception Method, which is to “Develop for one but Design for all”.

By receiving feedback from riders with disabilities and their friends and families, JLR has been able to innovate their design and marketing strategies in order to facilitate safe and stress-free journeys for all of their customers.

**B. Lime Connect**

Lime Connect Point(s) of Contact:
- Rene Forsythe, *Director of Professional Development*

Lime Connect is a nonprofit organization dedicated to reshaping the employment landscape for high-achieving individuals with disabilities. With a network of approximately 25,000 members, Lime Connect focuses on attracting, preparing, and connecting talented individuals with disabilities to forward-facing business roles through corporate partnerships. The organization's innovative approach includes a fellowship program, career coaching, and training for corporate partners, emphasizing the importance of inclusion in recruitment processes and workplace environments. The principle challenge for Lime Connect is effectively communicating the diverse needs of disabled individuals and ensuring accessibility in various aspects of professional engagement.

**C. L’Oréal Groupe**

L’Oréal Point(s) of Contact:
- Margaret Johnston-Clarke, *Global Chief Diversity, Equity & Inclusion Officer*
- Anahi Lafon, *Global Diversity, Equity, & Inclusion Impact Director*
L’Oréal champions innovation in the disability market through the Beauty of Inclusion Awards and HAPTA beauty tech.

L’Oréal’s mission statement reads: “Our goal is to offer each and every person around the world the best of beauty in terms of quality, efficacy, safety, sincerity, and responsibility to satisfy all beauty needs and desires in their infinite diversity.”

Research and lived experience reveal that a strong social stigma surrounds disability, yielding a largely unaddressed disability market worth billions of dollars.

L’Oréal has developed several disability inclusion initiatives to break down social stigmas and take advantage of the business opportunity that the disability market presents, encouraging and following through with innovation in the disability market. The company, for example, runs the The Beauty of Inclusion Awards—a competition that encourages L’Oréal’s constituent companies to submit products that are targeted towards consumers with disabilities for assessment. The company has also followed through with its pushes for innovation in its development of beauty tech products such as HAPTA—a makeup applicator intended to make cosmetics more accessible for people with limited mobility.

As the world’s biggest cosmetics company comprising thirty-six major brands such as Saint Laurent and Maybelline, L’Oréal has the power and influence to make disability inclusion a reality for the beauty industry—an industry that L’Oréal believes carries the purpose of making people feel beautiful. Making beauty more accessible thus aligns L’Oréal with such a purpose.

D. Lancôme

Lancôme Point(s) of Contact:

● Paul Tartrat, Innovation & Beauty Tech Director

Lancôme, the renowned luxury brand of the L'Oréal group, is launching HAPTA, the world’s first hand-held technological device to assist the application of makeup. This is part of their Beauty Tech initiative launched in 2009, promoting the use of forefront technology to personalize each customer’s product experience. As evident in the marketing campaign slogan, “Tech for good and beauty for all,” HAPTA was designed to increase accessibility to makeup, especially to customers with mobility disabilities. The product, though not yet launched, has already garnered a huge positive response on social media. It was named the recipient of the TIME Best Inventions of 2023 for accessibility. Lancôme will make this product compatible with non-Lancôme makeup products, too. As a luxury brand within the L’Oréal portfolio, Lancôme has positioned itself as an important and influential spearheader promoting accessibility in the beauty industry.
E. Procter & Gamble

P&G Point(s) of Contact:
- Sam Latif, *Company Accessibility Leader*
- Amy Williams, *Senior Communications Manager*

Procter & Gamble stands as an industry leader in disability representation and accessibility, with a decade-long track record of innovative initiatives, spanning inclusive media portrayal, employee recruitment, and, most importantly for this case study, product development. Within the media representation space, P&G’s collaboration with Lucy Edwards, a blind social media influencer, for the Pantene hair care brand has been a remarkable success. Further, P&G has spearheaded the drive for inclusive advertising practices for the visually impaired and deaf, actively engaging UK broadcasters in meaningful discussions hosted at the P&G offices. These conversations have led to the widespread adoption of audio description and captioning across the UK. Internally, P&G has emphasized equity and inclusivity in the workplace, renovating and retrofitting office spaces so that all workers are able to perform on a level playing field. Additionally, the company has demonstrated its commitment to attracting top talent by offering designated internship programs for people with disabilities (PWD) and implementing nontraditional hiring processes that enable potential employees to highlight their abilities in the interview process. Within the product development space, P&G has made a groundbreaking effort to incorporate inclusive design practices into the company’s product development. P&G’s 5 markers of accessibility are as follows: Digital Accessibility, Audio Description/Captioning in Advertisements, Ease of Use, Accessible Containers/Packaging, and Tactile Products (identifiable through touch). These five markers of accessibility framework that P&G now applies to its new product launches have dramatically improved the ease of use for many of the company’s products and have resulted in the production and implementation of new accessibility-minded technologies. P&G believes that equal experience is important and is thus committed to creating products as well as a culture that furthers this mission at all levels of the business.

F. Sony

Sony Point(s) of Contact:
- Sony Executive Team

Sony, driven by the company’s purpose of “filling the world with emotion, through the power of creativity and technology”, has remained committed to addressing the accessibility needs of their
customers and employees alike. Sony continues to pursue accessibility initiatives in order to contribute to a future where everyone can share Kando (*emotion*) equally.

In the 2022 fiscal year, Sony instituted a rule to integrate inclusive design into product commercialization by 2025. Sony underscores the significance of providing equal opportunities for dialogue and collaboration for individuals with disabilities, applicable beyond representation to broader inclusion efforts. Following the principles of one of their co-founders, Masaru Ibaku, Sony/Taiyo has pursued inclusive hiring, with over 60% of employees identifying as persons with disabilities and fostering workplace accessibility. Inclusive design at Sony spans product categories, leveraging the varied expertise of individuals with disabilities. Resources, including workshops and e-learning courses, involved over 1,000 employees, fostering basic knowledge and collaboration opportunities with people with disabilities.

Sony believes that in pursuing accessibility, it is necessary to understand and consider the needs of such diverse users. Critical success factors identified were the cultivation of a culture that values diversity and innovation through inclusive design, motivation from actual experiences, and endorsement from executives.

**G. Zalando**

Zalando Point(s) of Contact:

- Helene Mathelemuse, *Senior Manager, Projects and Partnerships, Diversity, and Inclusion Team*

Zalando, an online retail company, is on a mission to include more inclusive products in their online marketplace. Zalando strives to meet diverse customer needs in adaptive fashion not only through product offerings but also a multifaceted diversity inclusion strategy, which shapes their workforce and corporate ethos. The two main challenges the company faces are raising awareness of their adaptive clothing products and maintaining the accessibility of their digital platform. After conducting thorough research and engaging with consumers, Zalando has responded with innovative solutions, which include continuous training, machine learning for detailed image descriptions, and user feedback integration to address digital accessibility. Collaborations with disability inclusion organizations, community events, and accessible marketing materials bring greater visibility to their products. Zalando’s journey in universal representation sets an example for the rest of the fashion industry.
V. GLOBAL SURVEY WITH OPEN INCLUSION

Our Capstone team served as the lead research partner in a comprehensive survey conducted by Open Inclusion, a global market research agency dedicated to improving disability and age-inclusion. In November of 2023, the survey was distributed, gathering responses from about 1,000 people with disabilities globally to assess their perspectives and experiences regarding representation across communication channels and media. Respondents spanned six continents—North America, Europe, Asia, Africa, and Australia—providing insights from diverse cultural vantage points. There were over 20 disability types represented among participants, capturing a wide spectrum ranging from blindness to anxiety to multiple sclerosis. The Open Inclusion survey explored perceptions of disability portrayals in areas including advertising, public relations efforts, and corporate communications. Questions gauged the current state of representation across mediums, barriers faced, impacts of campaigns, as well as desires of the community related to identity visibility. With wide geographic distribution and plurality of disability types covered in the sample, the Open Inclusion survey aimed to enable key disabled stakeholders and activists to directly voice priorities and concerns on societal participation and inclusion worldwide.

As the lead research team for Open Inclusion, we uncovered that in general, respondents desired more authentic representation in marketing and media—or any representation at all—with most believing progress in disability inclusion has only slightly improved over the past five years. A respondent stated: “I just want to feel like I actually exist, but there is very nearly zero representation of disabilities like mine in any part of media or marketing, so I just want them to show how many of us exist and that many of us can be so much more beneficial to the world around us if we were accommodated or given whatever help we need.”

The majority of respondents recommended that businesses should actively consult the disability community when making disability-related decisions to enable meaningful participation in society. Additionally, respondents widely stated the need for broader, more positive narratives regarding disability across communications and media that go beyond stereotypical depictions, as well as increased representation of the vast spectrum of disabilities, several types of which currently see little to no representation.

According to the survey, 53% of all respondents said they rarely or never feel that disability is appropriately represented in advertising. Additionally, 66% expressed feeling rarely or never represented when it comes to their specific disability or access needs in advertising. A significant 71% of respondents believe that consistent representation of disability in business and brand communication would positively impact community attitudes towards disability. In terms of access barriers, 55% of participants reported experiencing them often or sometimes. Furthermore, when it comes to brands getting involved in campaigns like Disability Pride Month, 61% indicated that they are positively impacted only if the brand aligns with greater
disability inclusion beyond the specific campaign period. Another respondent stated, “My disability is part of me every second of every day. Having it be a day-week-month [event] is a bit condescending.”

The Open Inclusion survey provides a pivotal gauge of the current landscape of disability representation worldwide. While efforts in some nations emphasize awareness more than others, the aggregated results make clear that much work remains across geographic, cultural, and corporate spheres. With over half of the respondents underscoring glaring gaps in visibility for their disability identity or needs, the data quantifies lived realities long underrepresented. Even well-intentioned corporate forays into acknowledging disability prove hollow without an internal commitment beyond a pride month or awareness day. Survey insights reveal nuances around properly respecting those with disabilities daily versus performative, temporary promotion.

VI. GUEST SPEAKERS: LESSONS LEARNED

Our research was amplified through interactions with many leaders in the disability space. Their influences and expertise spanned many different sectors including public transportation, film/media, academia, public health, and others. Despite the diversity in their career trajectories, we were able to identify commonalities that emerged when discussing their approaches to combating various exclusionary practices and what their own definitions of authentic representation were. All of these experts generously came to campus to meet with the team, or met with us by Zoom.

A. Yushi Zhang

A leader of the Yale Disabilities Studies Network, Yushi Zhang is engaging in important—and unprecedented—work on Yale’s campus. According to the Yale School of Public Health—of which Zhang is a graduate—the goals of the network are “consolidating the efforts of disability studies scholars and students, establishing a critical anti-ableist lens on campus, and integrating disability into curriculum and research across multiple university departments”. Zhang’s ultimate goal is to create a Disability Studies Program, which would be the first of its kind at an Ivy League school. Zhang is thus a pioneer in disability representation efforts not just at Yale but in the Ivy League, and she emphasized the importance of leading research institutions in paving the way for a wider academic consideration of disability rights, histories, and futures. A key question raised in our conversation was in which department, at Yale or otherwise, disability studies programs would originate, since there is a lack of academic infrastructure for disability studies to be its own department at most institutions nowadays. This made all of us consider the relative merits of accessible-native brands versus established brands creating newly accessible products. Yushi’s passion and the thoughtfulness with which she describes her work makes clear
that she hopes to have an impact with her work that extends beyond college campuses—she wants to break down the social stigma surrounding disability and to especially focus her efforts on the medical system, which research shows has provided worse and more infrequent care to people with disabilities than those without. Zhang’s work thus aligns her with the mission of the Valuable 500 and demonstrates that disability inclusion and representation efforts are both lacking but are being developed in places other than corporations.

B. Quemuel Arroyo

As the first Chief Accessibility Officer for the MTA, Quemel Arroyo is a trailblazer in transportation. As part of the MTA, Arroyo has spearheaded disability inclusion efforts that range from ensuring elevator access in subway stations, having audio signals for walk signs, and raising street levels. What Arroyo wants to make clear is that his initiatives do not just help people with disabilities; public reception of Arroyo’s work indicates that his efforts have been beneficial for people of New York City and the surrounding MTA service areas. Arroyo’s work illuminates the importance of conducting disability inclusion efforts not just on an international or national scale, which many of the Valuable 500 companies operate at, but also at regional and local levels. He is committed to making New York City a place accessible, and, as a person in a wheelchair himself, Arroyo hopes that the Concrete Jungle can be welcoming to anyone and everyone. Arroyo has a vested interest in making improvements to the MTA; he offered insight into ways that inclusive leadership can lead to innovations that benefit all. Arroyo’s passion and drive promise great things for New York’s future, with the goal of creating a truly accessible transit system that can be a source of inspiration for other metropolitan areas across the United States and the world.

C. Grace Jun

Grace Jun is an assistant professor at the University of Georgia and a founding member of Open Style Lab (OSL), a disability and women-led nonprofit organization based at MIT. Established in 2014, OSL brings designers, engineers, and occupational therapists together to create accessible clothing designs that are functional yet fashionable. OSL offers a fellowship program intended to teach fellows about inclusive design and wearable solutions. Jun highlighted that a framework exists for judging the accessibility of buildings but the same criteria do not yet exist for clothing and fashion. Thus, she was excited by our capstone team’s efforts in collaboration with the Valuable 500 to develop a specific framework to guide partner companies as well as the opportunity to contribute to the advancement of pedagogy surrounding inclusive and accessible design.
D. Andraéa LaVant

Andraéa LaVant is the founder and president of LaVant Consulting Inc., a firm that, according to its website, is “dedicated to shaping the way the world reaches, views, and values people with disabilities”. LaVant’s firm engages in a variety of projects, from content marketing to strategic advising to training and education programs. One of LaVant’s notable projects under the firm include serving as an impact producer for the Oscar-nominated film Crip Camp, which focuses on a famous summer camp for teenagers with disabilities. LaVant Consulting Inc. requires closer and direct relationships with its clients, underscoring the many ways in which the global business sector can address disability.

E. Mindy Scheier

Mindy Scheier, the founder of Runway of Dreams Foundation, started her organization in 2014, inspired by her son, Oliver, who has muscular dystrophy. A fashion designer by trade, Scheier had connections to fashion brands such as Tommy Hilfiger with whom she collaborated with to launch their Tommy Adaptive clothing line, which specializes in designs that accommodate disability. Mrs. Scheier’s Runway of Dreams fashion show during NYC Fashion Week has worked to highlight the breadth of accessible fashion options and has attracted lots of attention to the adaptive fashion movement, featuring an assortment of celebrities with disabilities like former NFL linebacker Shaquim Griffin. She is also the founder of a consulting company, Gamut, that advises brands on accessible design. She was extremely full of energy and it’s very easy to see that she is truly one of the spearheads of this movement. Mindy’s personal engagement with the everyday struggles faced by people with disabilities is similar to other speakers like Q and Andraéa, and it has been an interesting through line to consider how these considerate leaders are inspired by wanting to create change for themselves or their loved ones.

VII. OUR RECOMMENDATIONS

Our research supports three specific actions to drive authentic disability representation in the global business sector.

1) Establish and ensure a top-down approach: our research makes clear that successful disability representation in business is possible when the executive leadership in a company prioritizes and champions the issue. Only with that buy-in will disability be taken seriously and understood at all levels of the company. Such gravity and awareness will promote more disability training, more inclusive hiring processes, and more innovation in the disability space.

2) Implement co-design processes: for authentic representation to be possible, people with disabilities must be involved at all stages of the development process of accessible products, whether that is for a product like a piece of clothing or media. Informed
development will allow persons with disabilities to be represented and acknowledged the way they want to be represented and acknowledged.

3) **Employ equitable pricing strategies:** it is important that companies do not alienate consumers with disabilities and subsequently deplete their own resources by having higher prices for accessible products. In order to maintain a path to the disability market, companies must find ways to maintain stable pricing for accessible products.

It is of utmost importance to highlight that taking these measures to improve authentic disability representation in the global business sector will not only benefit persons with disabilities. Our research indicates that working towards this improvement will have *universal* benefits, making the issue of disability representation a truly global one.

**VIII. LOOKING FORWARD**

While we have completed our research, the project is by no means over. Our work will be the foundation for the Valuable 500’s white paper delineating points of what the organization calls “Synchronized Collective Action” or SCA. Intended as metrics for its constituent companies working toward implementation and promotion of authentic disability representation, SCA can be defined as coordinated and harmonious measures taken up by a large group of entities to change the current status quo. This action is driven by establishing clear goals, methods, and considerations. In this way, the Valuable 500 hopes to maximize impact, improve efficiency, and multiply influence across its 500 companies. The Valuable 500 leadership will present our research and its recommendations at the World Economic Forum at Davos in January 2024, where the Valuable 500 will gather input on its SCA, recruit more CEOs and business leaders committed to their mission, and have its constituent companies begin taking steps to meet the goals outlined in the paper. The Valuable 500 anticipates that these companies will be able to report concrete progress on these goals at its Tokyo Summit in 2025—a summit at which all the Valuable 500 CEOs will be present and able to discuss their work.

We are proud to have provided the research for this project and to have contributed to the Valuable 500’s mission of ensuring disability inclusion for all. The organization’s corporate leaders and the billions of consumers they engage worldwide hold the key not just to inclusive business, but more importantly, to social change that can spur the transformation of policy and governance surrounding disability. Through our research, we hope that we can bring the world one step closer to a place where people with disabilities enjoy equality and equity.
IX. APPENDICES

APPENDIX A: LITERATURE REVIEW

Question 1 - Annotated Bibliography

2023 Disability Equality Index. (2023). In Disability:IN (pp. 1–24). Disability:IN.

A report that includes statistics about disability workplace inclusion vs. exclusion and provides a benchmarking tool to measure disability workplace inclusion.

https://blogs.lse.ac.uk/businessreview/2022/03/31/disability-inclusion-at-work-the-many-not-the-few/

Provides a (quantitative) overview of the disability unemployment gap, highlights barriers to disability inclusion, and outlines next steps for improving disability inclusion in the workforce.

https://doi.org/10.1007/s10869-018-9602-5

Analyzes concerns that employers currently have about hiring people with disabilities at each stage of the employment cycle (e.g. pre-employment, entry, etc.) and addresses those concerns with advice for building a more inclusive work environment.


About how Nike’s GO FlyEase line has revolutionized athletic footwear and broken into diverse consumer bases. Nike employees with disabilities—including two amputees—played indispensable roles in transforming FlyEase from a one-off invention to a niche product to a full-fledged brand platform.

Analyzes existing disability inclusion/representation practices of companies and attempts to determine what practices are most effective to bolster disability inclusion/representation going forward.


This paper explores why some companies engage in prosocial corporate behavior in favor of disability using an in-depth qualitative study of four Indian IT sector companies. Companies engage in these practices not purely due to ethics but because their industry was facing a “talent crunch”. 3 main effects of this change were: increasing company morale and community relations, enhancing company reputation, and recognizing people with disabilities as value creators. It was found that disability mainstreaming established the need for strategic re-organizational and sustainable management practices that strengthened capacity.


Finds that consumers on average like advertisements depicting people with disabilities and want more but state that the images that are being presented are often a “sanitized” portrayal of disability. Examines the quality of representation (is the actor being used for pity, etc.) and its importance when addressing the quantity of representation.


Coca Cola entered into a marketing and Olympic sponsorship with the intl paralympic committee. They have extended this agreement to 2032.

Analyzes existing disability inclusion/representation practices of organizations and attempts to determine what practices are most effective in bolstering that inclusion/representation. Finds that large businesses do better in disability inclusion than small ones, likely because of the higher number of resources at their disposal, and that businesses are currently more focused on/doing better in gender, race, and sexuality inclusion.


Slightly different take on how to make financial services accessible for people with visual disabilities


Findings demonstrate that despite the flexibility and opportunity to feature more diverse sports and athletes through one of their social media platforms (Twitter), the SMC chooses to continue the hegemonic practices deployed in their traditional outlets that focus on nondisabled athletes, popular sports, and representing disabled athletes and individuals through ableist and charity-focused narratives.


Discusses strategies companies can implement to better include and engage people with disabilities as employees, students, customers, etc. Lays out a business case for increasing engagement with disabled community and provides case studies as well.

The researchers in this article looked at the existing literature on disability and the workplace and the number of articles published by various institutions, identifying a gap in the literature about positive representation of disability inclusion.


This study measured employees' thoughts around disability inclusion and treatment in the workplace, finding that those without disabilities are less focused on and assign less importance to disability inclusion than people with disabilities or caregivers of people with disabilities.


A dissertation that is a literature review on the presence of disability in advertising. Makes recommendations for guidelines for advertisers seeking to increase the number of People With Disabilities in their advertisements.


Analyzes thoughts of supply chain employees in Indonesia regarding disability inclusion in the workplace. Note that this article is reflective of a gap in disability research—in Western countries vs. non-Western countries. This article was one of few that initially popped up not relying on data from Western countries.

Focuses on the service industry and how disability inclusion and consideration operates within this space.


Representation in film/media is often incomplete and presents pwd as objects of cultural fascination. This study examines the consumer response to emerging representations of people with disabilities in media (British-based study) through “situational analyses”. They found concerns around tokenism, stereotyping, focusing upon "exceptional" people, and fueling sanitized accounts that deny and obscure the harsh realities.


Survey of many research reports that have been done; could serve as a good way to benchmark overall activity in the space.


Reveals that Pharma, the automobile industry, and housing companies spend the most money on disability advertisements, and that the lack of quality representation on TV has in part paved the way for big social media personalities and leaders in the disability space.


Looks at insufficient representations of disability on television, revealing that 46% of people with a disability and 31% of people without a disability say there is “not enough representative content”. Non-visible disabilities are represented at higher rates than
visible disabilities; cable does a better job with representation than streaming services and broadcast networks.

Question 2 - Annotated Bibliography


Interestingly, this report is (perhaps purposefully) vague on the question of disability in the workforce, electing instead to emphasize ethnic and gender diversity in its research. While it does outline the importance of 4 key drivers for DEI in the workplace (Diverse and inclusive leadership, meritocracy, sponsorship, and substantive access to senior leaders), the lack of a discussion surrounding the role of employees with disabilities may speak to the lasting taboo about including voices of disabled people in the boardroom.

Coqual. (2023, January 25). *Disabilities and Inclusion Report*
https://coqual.org/reports/disabilities-and-inclusion/

This report was produced with the help of many companies such as Accenture, J&J, KPMG, Wells Fargo, and Bloomberg LP. It includes national and international surveys on the “state of disability in the workplace” and case profiles on country-specific DEI initiatives and company-specific DEI initiatives. Coqual, once known as the Center for Talent Innovation, is a non-profit think tank focused on issues in the workplace.


Corporate-focused nonprofits such as the Society for Human Resource Management are becoming more vocal about strategies for management and leadership teams seeking to advance DEI across silos. It seems that HR teams are the point of contact/entry for programs or planned initiatives to change a business’ perception of employees or potential hires with disabilities.


This 2018 report, titled “Getting to Equal: The Disability Inclusion Advantage”, was released by Accenture and was produced jointly by the American Association of People
with Disabilities and Disability: IN. Describing disability inclusion in the workforce as “the next frontier in corporate social responsibility”, the piece offers a strong rationale for the benefits of inclusion in a business and concrete examples of having employees with disability add value.


A more recent joint initiative by Disability:IN and the American Association of People with Disabilities (AAPD) created the Disability Equality Index (DEI), which has “become the leading independent, third-party resource for benchmarking disability inclusion policies and programs inside corporate America.”


While this source is technically scholarly in origin, we elected to include it because it contains tangible examples of ways in which companies in the private sector are changing their practices in order to attract employees with disabilities. For example, T-Mobile began sponsoring the National Wheelchair Basketball Association in part for the opportunity to engage with young people and inform them that working at T-Mobile is an opportunity open to them and that positions in the private sector are more accessible than they have been led to believe due to a lack of outreach. In addition, Microsoft has started to work with an autism-support organization to help develop an alternative interview method for applicants that may struggle in traditional interview formats even though they hold the technical skills to do the job.


Created by the Center for American Progress, this report outlines the employment gap between disabled and non-disabled individuals in the United States. Beyond the wealth of data within it, the report’s framing as a call to action for local and federal policymakers on facilitating greater opportunity for people with disabilities to find and keep employment seemed very compelling. Specific recommendations for the government such as increasing funding to the Equal Employment Opportunity Commission were made by the authors based on their findings. We wonder if the focus on regulation is an
important next step in incentivizing the corporate world to more profoundly engage with questions of disability inclusion.


This report, put together by the International Labor Organization, was built in 2014. Because it is slightly outdated, its takeaways should be taken with a grain of salt. However, the fact that the ILO has not updated its guidance on Disability and Corporate Social Responsibility in nearly a decade is important to note.


Google’s annual diversity report contained an entire section dedicated to accessibility and disability inclusion. They note that they have a dedicated Candidate Accommodations Team to ensure that all applicants to Google have the necessary accommodations for their needs, including granting extended time, having interpreters on hand, and providing live captioning. The report also mentions Google’s combined internal and external efforts to build an accessible organization for all— for example, they have a dedicated Employee Resource Group for Googlers with disabilities, and are advancing their technologies for braille keyboards and accessible mapping for people needing routes that are wheelchair-friendly.


Here, the International Disability Alliance outlines their work in creating the Disability Reference Group, which was designed to help “foster communication between [the] UN, international agencies, NGOs, and organizations of persons with disabilities” with the overarching goal of making humanitarian responses to crises be accessible for all people who need assistance.

UNESCO is hosting an event on the International Day of Persons with Disabilities in December in concert with Plan International with the intention of discussing disability inclusion and gender equality in education. We find this to run parallel with the concept of including inclusive design and accessible planning on the ground floor of businesses; if children are educated in an inclusive environment and their minds are consistently exposed to considerations of people with disabilities, the next generation of leaders will consider accessibility to be a “need” or a base level consideration, not a “nice to have”.

Boston Consulting Group. (2023, May 10). *Companies are drastically underestimating how many of their employees have disabilities.* BCG Global. https://www.bcg.com/press/10may2023-companies-drastically-underestimating-how-many-employees-have-disabilities

Boston Consulting Group (BCG) performed a survey of 28,000 employees in 16 countries in order to publish a report earlier this year titled *Your Workforce Includes People with Disabilities. Does your People Strategy?* The findings are striking, but unsurprising in the context of what the Valuable 500 and its partner organizations are working on. According to their research, around 25% of global employees face some disability or health condition that limits a major life activity, and they consistently feel more underserved by their employers than their non-disabled coworkers. This means that organizations are failing to get the most (both in terms of productivity and happiness) out of a quarter of their employees.


This Axios report, sponsored by the Walgreens Boots Alliance, notes how Walgreens has been successful in increasing inclusivity for its employees and customers with disabilities. A strong example of the power of partnerships and learning from audiences, Walgreens worked with Neurodiversity in the Workplace (NITW) to advance their ability to hire and retain neurodiverse employees. The company also has several initiatives in place to partner with other nonprofit organizations and build out accessible training programs in order to be a supportive employer of people with disabilities.
APPENDIX B: CASE STUDIES

A. JLR

Case Lead: Pierce Daly
JLR Point(s) of Contact:
- Joanne Peterson, Global Customer Insight Director Communications & Insights Centre of Excellence, Commercial

The sections below draw from an interview conducted with JLR’s Global Customer Insight Director Communications & Insights Centre of Excellence Joanne Peterson that took place on 18 October 2023 and are supplemented by information on the JLR website

Executive Summary:

Driven by their customer insights team, Jaguar Land Rover Group (‘JLR’) has embarked on a comprehensive inclusive design strategy based on the “Exception Method” touted by Studio Exception, an inclusive innovation consultancy. The Method can be distilled into the phrase “develop for one but design for all”. In the context of JLR’s work, this has meant engaging with different stakeholders with disabilities in order to understand their unique needs and apply their existing frictions to the company’s vehicle design strategy. By establishing a focus on making all journeys more comfortable and accessible for all potential drivers and passengers, JLR has become a leader in the Universal Representation and Product Design pillar.

Spotlight: The Exception Method’s Steps
1. Meet your exception
2. Learn their perspective
3. Identify new, previously unaddressed scenarios
4. Design for one
5. Create universal opportunities
6. Design for all
7. Connect with core customers
8. Build an exceptional idea
9. Create an inclusive vision
10. Share the story

Defining the Problem: Inclusivity for all customers
JLR’s recent push towards inclusivity began in the customer insights department, which realized that the company sold many fewer automobiles to women than their competitors. This springboarded all of JLR customer insights to begin asking questions about how their products,
advertisements, and retail experiences felt for their traditionally ignored customer subsets. In 2014, JLR sponsored the Invictus games and was able to gain firsthand access to groups of people with disabilities to understand sentiment around JLR’s vehicles and brand. Using the Invictus games connections as a base, the customer insights team was able to understand that JLR’s entire strategy did not include people with disabilities as a potential audience or buyer. Some of their existing features, such as different climate control for driver and passenger, remote door opening, and robust audio controls, were already helpful to riders with disabilities. However, there was still much work to be done.

**The Solution:** Designing for all

Leveraging work with the Invictus Games and Studio Exception, JLR embarked on two key projects with two individuals with disabilities that helped to generate dozens of potential new vehicle features and modifications.

The first project revolved around a 9-year-old boy named Eeshan. He and his family had found car journeys very challenging, because Eeshan feeds through tubes in his stomach, has autism, ADHD, and dyslexia, and needs consistent access to medical attention because of his stomach issues. The JLR team brought Eeshan and his family to their test track facility, had them ride in their vehicles and then recorded all of their thoughts and insights. This resulted in 8 key insights that spurred the creation of 16 different product ideas. Some questions that arose based on their work with Eeshan and his family included: How can the feeling of home be extended to the car? How can creativity be leveraged to make door-to-door travel a seamless journey? How can the car be used to soothe an uneasy rider with sensory stimuli? How can the car be felt as a space for family time?

On the product side, the team at JLR was able to create potential plans for the following innovations:
- Emergency Chauffeur: Car would safely pull to a stop on the shoulder of a road if the driver needs to tend to an emergency
- Car Spa: Seats having the ability to detect stress levels of passengers and adapt the climate and lighting ensuingly
- In-Car Communication: Speaker system in/near headrests and/or video display to allow for passengers in the backseat to see and communicate with the driver or individual(s) in the front row
- Thermo-Regulated Vehicle Storage

The second project came about by engaging with Isaac, an adult wheelchair user with limb-pelvis hypoplasia. Known for his daredevil activities, Isaac had gone viral multiple times for showing how someone with extensive physical impairments is able to live life to the fullest and do things like skydive. By equipping one of their vehicles with a control system set up for Isaac, JLR made Isaac able to drive a car with just his big toe on an Xbox controller, a tool he was familiar with from gaming at home. By developing new usability wheel technology and
thinking about ways to make it easier for Isaac to comfortably enter, sit in, and exit the vehicle, JLR’s customer insights team once again succeeded in provoking design ideas that could be utilized for customers of all backgrounds.

Outcomes:
Considering JLR’s success in innovating based on single customers with unique needs, the brand is now looking to innovate on its retail experiences in order for every aspect of their product sales to be inclusive. By focusing on specific customer segments, sales can be balanced to reflect a more diverse customer base than what JLR currently has. A continued focus on designing for all and inspiring change in car journeys regardless of vehicle would help JLR remain an industry leader for inclusive representation and design.

JLR’s recent Trailblazer campaign, which aired during the World Rugby Cup, exemplifies the company’s commitment to disability inclusion; a variety of trailblazing rugby players, including some with disabilities, shared their stories with JLR as inspiring examples of the perseverance that it takes to “embrace the impossible”.

Inclusive advertisements, retail experiences, and designs are all part of this company’s vision for the future in terms of both branding and customers. One idea for inspiring wider change was a conference for vehicle manufacturers to display their inclusive designs and discuss the representation of riders and drivers with disabilities within their products.

B. Lime Connect

Case Lead: Grace Freedman
Lime Connect Point(s) of Contact:
- Rene Forsythe, Director of Professional Development

The sections below draw from an communications with Lime Connect’s Director of Professional Development Rene Forsythe

Bridging the Gap for High-Achieving Individuals with Disabilities

Executive Summary:

Lime Connect is a nonprofit organization dedicated to reshaping the employment landscape for high-achieving individuals with disabilities. With a network of approximately 25,000 members, Lime Connect focuses on attracting, preparing, and connecting talented individuals with disabilities to forward-facing business roles through corporate partnerships. The organization's innovative approach includes a fellowship program, career coaching, and training for corporate partners, emphasizing the importance of inclusion in recruitment processes and workplace environments. The principle challenge for Lime Connect is effectively
communicating the diverse needs of disabled individuals and ensuring accessibility in various aspects of professional engagement.

Defining the Problem:

The primary challenge Lime Connect addresses is bridging the communication gap between the professional community eager to support disabled individuals and the disabled community itself. Despite a strong desire to assist, many organizations struggle to understand and effectively respond to the diverse and unique needs of individuals with disabilities. This challenge is compounded by the need to define and remove barriers within the recruitment process and the professional environment, ensuring that entrance points to the professional world are accessible and inclusive. Additionally, there is a need to address the wide variety of disabilities, each requiring different accommodations and considerations. Lime Connect embraces these challenges as opportunities, recognizing that the diversity within disability offers countless avenues for companies to enhance their accessibility and inclusivity.

The Solution:

To address these challenges, Lime Connect has implemented several strategic solutions:

1. **Enhanced Communication and Feedback Loops:** Establishing open lines of communication between disabled individuals and organizations is crucial. Implementing feedback loops allows for continuous learning and adaptation of strategies to meet the needs of disabled professionals.

2. **Accessible Recruiting Processes:** Lime Connect advocates for accessible recruiting processes, such as virtual recruiting, and eliminating assessments or litmus tests that may disadvantage individuals with certain disabilities. An emphasis is also on ensuring the request for accommodations is clear and straightforward.

3. **Empowerment through Education and Resources:** Providing disabled individuals with the tools and confidence to advocate for themselves is key. This includes offering career coaching, leadership development through fellowship programs, and direct connections with corporate partners who are educated and aware of the importance of diversity and inclusion.

4. **Inclusive Design Principles:** Following the model of companies like Microsoft, which has integrated extensive disability features into its products, Lime Connect encourages organizations to design with inclusion in mind. This approach not only benefits individuals with disabilities but enhances the overall user experience for everyone.

5. **Diversity in Disability Representation:** Recognizing the vast diversity within the disabled community, Lime Connect focuses on covering a wide range of disabilities, understanding that there are numerous ways to enhance accessibility and inclusivity.
By implementing these solutions, Lime Connect continues to pave the way for high-achieving individuals with disabilities, ensuring they have equitable access to career opportunities and can thrive in inclusive professional environments.

C. L’Oréal Groupe

Case Leads: Amy Brooks & Aditi Narayanan
L’Oréal Point(s) of Contact:
● Margaret Johnston-Clarke, Global Chief Diversity, Equity & Inclusion Officer
● Anahi Lafon, Global Diversity, Equity, & Inclusion Impact Director

The sections below draw from an interview conducted with Margaret Johnston-Clarke and discussions with Anahi Lafon that took place on 20 October 2023 and are supplemented by information on the L’Oréal Groupe’s website

Executive Summary:
One of the first big companies to forefront and improve disability inclusion, L’Oréal embraces its role as a pioneer in the disability space, having pursued a wide range of disability inclusion initiatives. Committed to promoting “beauty for all”, L’Oréal has been innovating in beauty tech through products like HAPTA and elevating product packaging to improve the accessibility of its brands. These efforts are taking shape as a result of strong internal pushes for innovation in the disability space. Praised by major organizations like Disability:IN, publications like Vogue, and—most importantly—its consumer base for its innovation in disability inclusion and recruitment of persons with disabilities, L’Oréal is equipped and excited to continue making “beauty for all” possible. And as the world’s biggest cosmetics company comprising thirty-six major brands such as Saint Laurent and Maybelline, L’Oréal has the power and influence to make disability inclusion a reality for the beauty industry at large.

Introduction and Overview of Inclusive Representation:
L’Oréal recognizes the purpose of the beauty industry as making people feel beautiful—a purpose that inherently assigns importance to disability inclusion and representation. L’Oréal underscores this importance in its mission statement “to offer each and every person around the world the best of beauty in terms of quality, efficacy, safety, sincerity and responsibility to satisfy all beauty needs and desires in their infinite diversity”. For over twenty years, L’Oréal has been committed to addressing disability inclusion from a human and business perspective, aware of the strong social stigma that currently surrounds disability, as well as the massive business opportunity that the disability market presents.

Defining the Problem:
While L’Oréal has made huge strides in disability inclusion, the company has identified a number of challenges that the achievement of such inclusion involves. The business challenges L’Oréal faces are as follows 1) limited accessibility of beauty products to persons with disabilities and, subsequently, low self-esteem of those consumers, 2) varied lack of awareness and recognition of disability around the world, and 3) lack of disability representation in the workforce. Given the broadness and importance of these challenges, L’Oréal has a number of initiatives tackled at disability inclusion currently at play and more in development.

The Solution:

Under the leadership of Margaret Johnston-Clarke, the Global Chief Diversity, Equity & Inclusion Officer since 2017, L’Oréal has notably been tackling the challenges presented by disability inclusion by encouraging and following through with innovation. One example of this encouragement at a company-wide level is The Beauty of Inclusion Awards—a competition that encourages L’Oréal’s constituent companies to submit products that are targeted towards consumers with disabilities for assessment. The Awards draw hundreds of submissions. L’Oréal also boasts Research & Innovation teams that promote innovation. It was discussions between Johnston-Clarke and the Research & Innovation team that led to the development of HAPTA—a makeup applicator intended to make cosmetics more accessible for people with limited mobility.

Such innovation is possible because of how L’Oréal has increased awareness of disability not only within the company but among its consumer base around the world. This awareness is possible because of buy-in from the executive leadership of L’Oréal. Because of the executive leadership, which has importantly spearheaded efforts to hire more persons with disabilities and mandate training on disability for all employees, awareness is possible and growing at all levels of the company. There are now many teams in place across L’Oréal that address disability inclusion, including regional teams that help L’Oréal deal with the issue of marketing accessible products to a world that contains many attitudes towards disability.

Yale Recommendations:

To make emerging beauty tech like HAPTA more affordable and accessible to the disability community, L’Oréal could consider creative pricing strategies. They could offer tiered pricing, discounts for early adopters, bundle deals on multiple products, or financing options. Partnering with insurers or government programs to subsidize costs for low-income individuals could also help. Regarding scalability, L’Oréal should share best practices and learnings from pilot projects across brands and regions. Centralizing then distributing knowledge on successful technologies like HAPTA could speed up wider deployment.

L’Oréal could also engage the disability community early when designing new products and campaigns. By incorporating diverse perspectives from the start, they can create more marketable and scalable solutions. Developing an advisory council or focus groups of people with disabilities around the world would provide valuable insights. Additionally, marketing specifically to the disability community could make products seem more relevant and drive sales.
Targeted social media campaigns, influencer partnerships, and representation in advertising could help connect with this audience.

By focusing on affordability, knowledge sharing, community engagement, and targeted marketing L’Oréal can maximize the reach and commercial success of their laudable disability inclusion initiatives.

Outcomes:

L’Oréal’s innovation in disability inclusion has found great success. The Beauty of Inclusion Awards, for example, boasts broad participation and results, drawing thousands of participants from countries around the world and hundreds of product submissions. HAPTA, on the other hand, has created strong buzz on social media despite not even being released yet.

Disability inclusion aligns L’Oréal more with its goal—to make people feel beautiful—and given the outcomes of L’Oréal’s disability inclusion efforts so far, the company firmly believes that its overall brand value has increased—and will continue to do so—because of these efforts.

A takeaway from these initiatives on their implementation is that they must be top-down. L’Oréal learned that without a top-down approach, disability inclusion gets sidelined to Human Resources, preventing successful implementation and focus.

Given the success so far of L’Oréal’s disability inclusion efforts, the company has started thinking about new initiatives for the future. L’Oréal’s main focus for the future is to have digital accessibility. Furthermore, the company hopes to recruit more spokespeople who identify as persons with disabilities.

D. Lancôme

Yale Leads: Faith Evanson & Mao Shiotsu
Lancôme Point(s) of Contact:
○ Paul Tartrat, Innovation & Beauty Tech Director

All information below is from a presentation by and dialogue with Innovation & Beauty Tech Director Paul Tartrat and his team on October 20, 2023

Executive Summary

Lancôme, the renowned luxury brand of the L’Oréal group, is launching HAPTA, the world’s first hand-held technological device to assist the application of makeup. This is part of their Beauty Tech initiative launched in 2009, promoting the use of forefront technology to personalize each customer’s product experience. As evident in the marketing campaign slogan, “Tech for good and beauty for all,” HAPTA was designed to increase accessibility to makeup, especially to customers with mobility disabilities. The product, though not yet launched, has
already garnered a huge positive response on social media. It has also been featured on TIME Best Inventions of 2023 for accessibility. Lancôme will make this product compatible with non-Lancôme makeup products, too. As a luxury brand within the L’Oréal portfolio, Lancôme could become an important and influential spearheader promoting accessibility in the beauty industry.

**Defining the Problem:**

The problem Lancôme saw was that makeup, and beauty, more broadly, were not accessible to those with mobility impairments because applying makeup often requires hand and arm mobility. Lancôme holds four main values: Authenticity, Excellence, Generosity, and Inclusivity. Further, L’Oréal launched an initiative named the Beauty Tech Ecosystem. The three pillars of this ecosystem are Augmented Skin Diagnosis, Amplified Performance, and Radicalized Accessibility. The third pillar, “Radicalized Accessibility,” was added approximately eight years ago, as the necessity for producing accessible products became increasingly recognized. People with disabilities are the largest minority in the world, and thus also hold valuable market power.

Lancôme is committed to ensuring that makeup should be accessible and available to all. People with disabilities, especially those with motor control difficulties, cannot utilize many beauty products such as lipstick and mascara. Because they cannot apply these products precisely, they are left out, and thus the idea of HAPTA was born. The belief behind it is that all women should be able to feel “beautiful” by applying makeup regardless of any disability.

**The Solution:**

HAPTA (shown below) is the world’s first hand-held technological device that assists makeup applications. It holds the makeup product and includes self-leveling technology, similar to the technology that airplanes employ during turbulence, to help stabilize application for anyone but is especially useful for those with motor control dysfunctions and limited mobility. HAPTA was developed in tandem with AI and tech experts from L’Oréal. The product was tested bi-monthly with a hospital that focuses on mobility rehabilitation.

Lancôme has launched an extensive marketing campaign for HAPTA, featuring actor and model Pamela Bateman-Lee, model and influence Janira Obregon, and theater artist Natasha Urkow, who have different forms of mobility disability. Lancôme listened to disabled people to understand what they needed to make makeup-applying accessible. In the advertisement video, the women comment on their desire to have the ability to apply lipstick without struggle, and how HAPTA lets them do just that. The message is simple: Beauty (if defined as “makeup”) should be universally attainable, and thus there should be no barriers to applying makeup.

One concern Lancôme has in launching HAPTA is consumer response. They were worried that HAPTA might not be consumers, but there was an overwhelmingly positive response, detailed below. They also imagined that the high cost of the device would be an obstacle for consumers, and thus spoke with stakeholders about the option to give some devices
out for free. They ultimately decided against this option and to instead sell all devices, in order to respect the disabled community as customers. People with disabilities are not charity cases; they are customers.

We believe these kinds of technological advancements in the beauty industry should be continually researched and extended to other products that span skin care, makeup, hair care, and perfumes.

**Outcomes:**

The HAPTA campaign found huge social success with 7 billion media impressions, 120 million social media impressions, and seven awards, including the TIME Magazine Best Inventions 2023 Award. Following the campaign, their engagement increased tenfold on their social media platforms. The overwhelmingly positive response has made very clear how much demand there is for more technologically trailblazing products that creatively address accessibility limitations.

**Next Steps:**

Lancôme claims a leadership role in the race toward designing more accessible products in the beauty industry, which is, as a whole, beginning to move toward more accessibility. They hope to continue innovating and creating tools like HAPTA.

One future step that remains unclear is the business model of tools like this for HAPTA. There is the question of how much monopoly Lancôme should hold over this make-up tool: Should they patent the technology? How can they make the tool compatible with any brand’s products? They are also grappling with how the price affects accessibility to the product. Should and can Lancôme subsidize the price of HAPTA?

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**E. Procter & Gamble**
Yale Leads:
- Kaleb Assefa and Bea Soto

P&G Points of Contact:
- Sam Latif, Company Accessibility Leader
- Amy Williams, Senior Communications Manager

The sections below draw from an interview conducted with P&G’s Company Accessibility Leader Sam Latif that took place on 19 October 2023 and are supplemented by information on the P&G website

Executive Summary:
Procter & Gamble stands as an industry leader in disability representation and accessibility, with a decade-long track record of innovative initiatives, spanning inclusive media portrayal, employee recruitment, and, most importantly for this case study, product development. Within the media representation space, P&G’s collaboration with Lucy Edwards, a blind social media influencer, for the Pantene hair care brand has been a remarkable success. Further, P&G has spearheaded the drive for inclusive advertising practices for the visually impaired and deaf, actively engaging UK broadcasters in meaningful discussions hosted at the P&G offices. These conversations have led to the widespread adoption of audio description and captioning across the UK. Internally, P&G has emphasized equity and inclusivity in the workplace, renovating and retrofitting office spaces so that all workers are able to perform on a level playing field. Additionally, the company has demonstrated its commitment to attracting top talent by offering designated internship programs for people with disabilities (PWD) and implementing nontraditional hiring processes that enable potential employees to highlight their abilities in the interview process. Within the product development space, P&G has made a groundbreaking effort to incorporate inclusive design practices into the company’s product development. P&G’s 5 markers of accessibility are as follows: Digital Accessibility, Audio Description/Captioning in Advertisements, Ease of Use, Accessible Containers/Packaging, and Tactile Products (identifiable through touch). These five markers of accessibility framework that P&G now applies to its new product launches have dramatically improved the ease of use for many of the company’s products and has resulted in the production and implementation of new accessibility-minded technologies. P&G believes that equal experience is important and is thus committed to creating products as well as a culture that furthers this mission at all levels of the business.

Introduction and Overview of Inclusive Representation:
P&G does not have a public definition for authentic disability representation. However, P&G states the following: “We strive to accommodate P&G employees with all abilities by incorporating physical and digital inclusion and accessibility in the workplace with Universal Design. We’re integrating subtitles, automatic speech recognition, and audible captioning in
many of our software solutions and establishing an internal Digital Accessibility Hub to enable equal access to communication.”

Sam Latif, P&G’s Head of Accessibility, made it clear that P&G believes that equal experience is crucial. The company’s statement on disability expresses a commitment to “creating a more inclusive world for everyone – both inside and outside the walls of [the] company”, and a recognition of the “immense responsibility to drive change for [the firm’s] employees, with [P&G’s] brands, through [P&G’s] partners, and in [P&G’s] communities.” P&G has additionally taken steps to ensure senior leadership are aware of the difficulties faced by people with disabilities as they relate to the company's products.

Retrofitting products or programs to be accessible is more costly and difficult than designing them to be accessible in the first place. Because P&G considers disability at early stages of the product design process, these accessibility adaptations can be made at no cost. Disabled users are 10x more loyal to brands than nondisabled users, so there is a strong business case that backs the company’s insistence on authentic disability representation.

**Definition of the Problem:**

P&G’s visually impaired consumers had trouble identifying products at the point of purchase and were often unable to easily differentiate between products after purchase. On average, people with disabilities spend an extra 30 minutes buying a product; this 30 minutes does not account for the associated challenges in opening and using a product. Through the use of sight loss simulation glasses and sensory deprivation gloves, the CEO of P&G was able to experience the vision and tactile challenges many of P&G’s customers face, revealing to senior leadership that many of the company’s product offerings were not creating an equal experience for all users. In fact, those using the goggles and gloves were unable to tell the difference between P&G shampoo and conditioner bottles and struggled to open P&G’s Pampers Diapers containers. This experience helped spark a company-wide sense of duty to make P&G’s products more accessible for all users.

According to Latif, accessibility initiatives at P&G derive from the personal experience of employees, many of whom are consumers of P&G products. Sam and her colleagues work to distill some of the biggest challenges they have personally experienced into actionable ideas that P&G can work into the company’s products.

**The Solution:**

To reiterate, P&G’s 5 markers of accessibility are as follows: Digital Accessibility, Audio Description/Captioning in Advertisements, Ease of Use, Accessible Containers/Packaging, and Tactile Products (identifiable through touch). P&G’s solutions to two of these accessibility challenges - accessible packaging and tactileness - are especially ingenuous and tackle two important business challenges.

As a firm that sells the majority of its products through external vendors, P&G needed to find a way to make the company’s products accessible at the point of purchase. Creating
accessible digital sites and advertisements is not effective if they can not easily identify and differentiate products in the stores where they actually shop. NaviLens is a barcode scanning app from Spain that helps vision impaired shoppers locate and learn about products. NaviLens was first used in museums and transportation systems, but P&G, seeing the use of this technology, decided to incorporate NaviLens’ colorful barcodes into some of P&G’s products. In addition to helping the visually impaired, NaviLens solves another business challenge by circumventing potential language barriers, describing products to consumers in their languages of choice. NaviLens barcodes are printed on P&G packages, making shopping more accessible for many of P&G’s customers.

P&G’s patented tactile marking technology aims to further aid people with impaired vision and cutaneous sensory challenges. Discerning between sanitary and other products oftentimes presents an obstacle for some PWD. Beginning in 2019 Herbal Essences brand launch, P&G has developed a vocabulary of tactile labels that is designed to make identifying the products much easier. They have implemented this system of tactile labeling on products ranging from shampoos and conditioners to detergents and diapers, and in doing so have expanded the company’s potential market. In order to have a positive impact on the greatest number of people, P&G has allowed other companies to use the company’s tactile marking technology and vocabulary with the goal of making product identification and shopping accessible for all.
Both the NaviLens and tactile labeling initiatives required an all-hands-on-deck approach. Members from the marketing, sales, design, and engineering teams, among others, were involved in the production and launch of these products. Additionally, having executive level buy-in has been key to the continued success of these two initiatives. P&G’s upper management has consistently shown a willingness to invest in accessibility, ensuring that the initiatives making P&G products more accessible will continue to receive necessary funding over the years.

**P&G’s work in media & advertising:**

In addition to P&G’s efforts in the product space, the company is also a market leader in advertising and media accessibility. P&G led the drive to make audio-described ads standard and aims to make 100% of the company’s TV advertising messaging accessible by 2025, through the use of audio description and closed-captioning. To start, the P&G team partnered with The Royal National Institute of Blind People to learn how to effectively incorporate audio description into its ads. In 2021, P&G became the first company to run a Super Bowl ad with audio description. Most recently, P&G has incorporated audio description into its YouTube channel. In a recent conversation, Taide Guajardo, P&G’s Chief European Brand Officer, said, “the advertising and media industry have the power and the obligation to let all people access content, including the advertising that shapes their choices.” P&G believes that companies and broadcasters should “join forces for growth and for good.” P&G has taken the lessons learned from its internal journey to improve on accessibility and has become a thought leader, using its influence to impact other businesses, governments, and communities.
Outcomes:

Although it has been difficult to identify the precise return on capital of this work, we do know that P&G has gained access to an incredibly valuable sector of the market due to the company’s accessibility initiatives. P&G has successfully expanded its clientele by making certain products (like the Herbal Essences shampoo and conditioner) accessible for disabled consumers through tactile packaging changes and by equipping products with NaviLens barcodes. The year Herbal Essences launched a tactile line of shampoos and conditioners, sales jumped. P&G was not able to collect data that directly attributed this increase in sales to the new tactile feature on the company’s bottles, but they believe it likely contributed to the positive sales. Outside of sales, P&G has received an outpouring of public support and a number of awards such as the Best of Show Award in the 2020 PAC Global Leadership Awards and the Helen Keller Services’ 2023 AccessAbility Award for the company’s accessibility features. Because these two accessibility initiatives make strong business sense and align with the firm’s internal desire to improve the experiences of consumers with disabilities, it has made gaining investment from stakeholders throughout the company an attainable goal.

As the firm launches new products and existing brands undergo redesigns, more and more of Proctor and Gamble’s products will incorporate these meaningful accessibility features, enabling P&G to reach its goal that all of its products provide an equal experience for every consumer.

F. Sony

Yale Lead(s): Faith Evanson
Sony Point(s) of Contact: Sony Executive Team

The following case study was formulated using the written responses from Sony executives to a questionnaire formulated by the V500 and the Yale research team

Executive Summary:

Sony, driven by the company’s purpose of “filling the world with emotion, through the power of creativity and technology”, has remained committed to addressing the accessibility needs of their customers and employees alike. Sony continues to pursue accessibility initiatives in order to contribute to a future where everyone can share Kando (emotion) equally.

In the 2022 fiscal year, Sony instituted a rule to integrate inclusive design into product commercialization by 2025. Sony underscores the significance of providing equal opportunities for dialogue and collaboration for individuals with disabilities, applicable beyond representation to broader inclusion efforts. Following one of their co-founders, Masaru Ibaku’s principles, Sony/Taiyo has pursued inclusive hiring, with over 60% of employees identifying as persons
with disabilities and fostering workplace accessibility. Inclusive design at Sony spans product categories, leveraging the varied expertise of individuals with disabilities. Resources, including workshops and e-learning courses, involved over 1,000 employees, fostering basic knowledge and collaboration opportunities with people with disabilities.

Sony believes that in pursuing accessibility, it is necessary to understand and consider the needs of such diverse users. Critical success factors identified were the cultivation of a culture that values diversity and innovation through inclusive design, motivation from actual experiences, and endorsement from executives.

**Defining the Problem:**

Sony executives define accessibility as the ability of all consumers to use products, services, and content regardless of age, disability, or other personal characteristics, ability, or environment. Masaru Ibuka, one of the co-founders of Sony, established Sony/Taiyo Corporation based on his attitude of valuing people's independence and creating an environment that supports their independence, instead of differentiating them by whether or not they have a disability. Sony recognizes that one in six people globally live with some limitations due to disability, age, or other factors and believes that these limitations should not restrict them from experiencing *Kando* equally. As a leading global technology company, Sony acknowledges that they have a duty to leverage its technological expertise and creativity to push innovation forward.

**The Solution:**

Sony issued a rule in the 2022 fiscal year to implement inclusive design into our product commercialization processes by the 2025 fiscal year. The Accessibility Promotion team with the Quality Management team led the initiative in defining and issuing this rule. Involvement included inspections from HCD (Human-Centered Design) experts and endorsements from senior executives, including the Senior Vice President of Quality Management at Sony Group Corporation and C-suite executives of the ET&S business segment.

Sony has learned that providing equal opportunities for people with disabilities to engage in dialogue and work collaboratively is crucial for the success of the initiative. The company emphasizes the importance of recognizing and utilizing the knowledge that individuals with disabilities bring to contribute to society. These lessons are seen as applicable not only to the representation space but also to other areas of disability inclusion and accessibility within the business. Following Masaru Ibaku’s principles, Sony/Taiyo has gone on to hire inclusively with over sixty percent of employees currently identifying as a person with disabilities. This initiative has been matched with increasing workplace accessibility and instilling a company culture that uplifts the diversity of its employees. Inclusive design is implemented across various categories to harness the diverse knowledge and contributions of individuals with disabilities.

Resources for planning and execution included inclusive design workshops and e-learning courses for Sony employees. By the end of the 2022 fiscal year, over 1,000 employees
experienced the workshops, and 50,000+ completed the e-learning courses, providing basic knowledge and opportunities to work with people with disabilities.

**Outcomes:**

The initiative discussed does not yet have quantifiable outcomes as it is set to achieve its goals by the 2025 fiscal year. However, accessible products like TVs, cameras, and smartphones with inclusive design features have already and continuously been launched. The company anticipates an increase in overall brand value based on the positive feedback received during presentations at corporate events and exhibitions, including CEATEC, Japan's leading comprehensive technology exhibition.

One product presented at CEATEC that is under development is the Going Out Walking Support Project. The project is focused on producing a small sensor device that connects to a walking cane. The sensors would have unique sensing and communication technologies that detect nearby objects and notify the user by sound and vibration. This way, the cane user can have a more engaging and safe experience when reaching their destination.

Potential obstacles included implementing inclusive design spanning Sony's diverse product categories, resulting from concerns about time and workload across business segments.

**Sources:**


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**G. Zalando**

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Zalando Point of Contact:

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*The sections below draw from an interview conducted with employees across Zalando teams that took place on 20 October 2023*

**Executive Summary:**

Zalando, an online retail company, is on a mission to include more inclusive products in their online marketplace. Zalando strives to meet diverse customer needs in adaptive fashion not only through product offerings but also a multifaceted diversity inclusion strategy, which shapes their workforce and corporate ethos. The two main challenges the company faces are raising
awareness of their adaptive clothing offerings and maintaining the accessibility of their digital platform. After conducting thorough research and engaging with consumers, Zalando has responded with innovative solutions, which include continuous training, machine learning for detailed image descriptions, and user feedback integration to address digital accessibility. Collaborations with disability inclusion organizations, community events, and accessible marketing materials bring greater visibility to their products. Zalando’s journey in universal representation is an example for the rest of the fashion industry.

**Introduction and Overview of Inclusive Representation:**

Zalando’s commitment to disability inclusion and accessibility is wide-ranging, influencing various aspects of their operations. As for products, partnerships with companies like Otto Bock and All is for All enable them to gather valuable feedback from customers with disabilities, guiding the design and functionality of their products. Voices from the disabled community and content by disabled talent are taken into account in this process. Accordingly, Zalando has begun to offer adaptive products through their private labels such as Pier One and Even&Odd. Also under its belt is the high-profile brand Tommy Adaptive, by Tommy Hilfiger - a suite of adaptive clothing. Their vision for the future is centered on getting consumers excited and ensuring that adaptive clothing options genuinely meet customer preferences.

Zalando recognizes the diversity of preferences within the disabled community across different countries, cultures, and languages. Customer experience principles include focusing on style over functionality and emphasizing individual self-expression. Zalando aspires to create an inclusive, non-segregated experience, allowing customers to mix and match adaptive and non-adaptive products. The search for clothing terms reveals a desire to avoid medical labels and keep the fashion appeal.

The company actively engages with the disability community and strives to let Zalando know about their adaptive fashion offerings. Collaboration with the Valuable 500 plays a significant role in raising awareness, as Zalando faces challenges in reaching the disabled community directly. The organization’s dedication underscores the importance of inclusivity, style, and proactive efforts to cater to the diverse needs of the disabled community.

Zalando’s devotion to disability representation extends beyond their product offerings and permeates their approach of attracting, training, promoting, and retaining diverse talent. This strategy involves partnerships with companies like Otto Bock, seeking feedback to improve their designs and adaptability. It also ensures that initiatives resonate with individuals, via consistent surveying of employees and training. Consistent representation of disabled individuals is a key principle, and Zalando have partnered with prominent brands to develop, design, buy, and negotiate adaptive features.

Within the organization, accessibility is a key performance indicator (KPI), shaping the goal of all employees to promote accessibility. Their efforts extend beyond their industry,
seeking to inspire others to collaborate on accessibility improvements. Zalando's diversity and inclusion approach is rooted in partnerships, passion, consistency, and knowledge-sharing.

Zalando’s mission to create and market disability clothing products is a meticulously researched and inclusive process. Price, size, and style are the main categories examined when curating their product assortment. Extensive research, spanning a year and a half, involves partnerships with consultancies where consultants themselves have various disabilities. Zalando’s focus on accessibility goes hand in hand with their commitment to making products understandable and accessible to individuals with disabilities.

To address the additional research and development costs involved in creating adaptive products, Zalando is determined not to pass these costs onto the customer. They work collaboratively with other brands to ensure price consistency, avoiding any price discrepancy between disabled and non-disabled customers. The strategy revolves around striking a balance between functionality and style, ensuring affordability and maintaining a trendy appeal.

**Defining the Problem:**

Zalando encounters a pivotal business challenge rooted in its online-only presence, devoid of brick-and-mortar stores—the digital platform's accessibility. The team reported to us that it has had three rounds of major changes to their website as when one team launches a product that does not align with digital accessibility, new problems arise. The team emphasizes the difference between being compliant and having accessibility features that are actually helpful, i.e. what does an image description look like; does it actually help someone that is visually impaired to understand the clothing that they might buy? The team has distinguished achieving mere compliance and implementing genuinely helpful accessibility features, aiming for the latter. Notably, they are in the early stages of integrating machine learning algorithms for image descriptions, while recognizing that this process will take time.

Zalando’s dream is to effectively market adaptive products in online marketplaces. This is twofold: firstly, ensuring that the digital platform remains accessible and secondly, overcoming the hurdle of making the disabled community aware of their adaptive fashions. Zalando seeks assistance from the Valuable 500 to address the outreach struggle, especially given the limitations of “traditional avenues such as care homes”. In essence, the core challenge revolves around strategically presenting and communicating adaptive fashion offerings in the dynamic landscape of online retail.

**The Solution:**

To address the challenge of maintaining digital accessibility, Zalando is implementing a comprehensive framework that prioritizes both compliance and user-centric features:

**Continuous Accessibility Training:** Zalando is investing in ongoing training programs for its development teams, ensuring that every member is well-versed in accessibility principles.
This includes workshops, seminars, and collaboration with accessibility experts to instill a culture of awareness and responsibility.

1. **Machine Learning for Enhanced Image Descriptions**: Zalando is incorporating machine learning algorithms for image descriptions. This not only will comply with accessibility standards but provide meaningful and detailed descriptions, significantly benefiting visually impaired users. The ongoing development of this feature reflects Zalando's commitment to evolving technologies for the benefit of all customers.

2. **User Feedback Integration**: Zalando is actively seeking feedback from users with disabilities to fine-tune their digital accessibility features. Through user testing and engagement, the organization is iteratively improving their website and digital platforms. This two-way communication ensures that accessibility enhancements align with the practical needs of the disabled community.

To tackle the challenge of raising awareness among the disabled community about Zalando's adaptive fashion offerings, the company is implementing targeted strategies for effective outreach.

1. **Community Engagement Events**: Zalando is exploring collaborations with local disability organizations and events to engage with the disabled community in person. By participating in relevant gatherings, they aim to bridge the gap between the digital platform and real-world awareness, reaching individuals who may not be easily accessible online.

2. **Accessible Marketing Materials**: Zalando is committed to creating marketing materials that are accessible to diverse audiences. This includes providing information in multiple formats, such as audio descriptions and easy-to-read content.

**Outcomes:**

As a large, international organization owning and partnering with several fashion brands, Zalando has made its statement to other fashion companies in doing the due diligence to launch lines of adaptive products. Through working with organizations dedicated to disability representation and taking into account authentic voices in the community, they are poised to take the adaptive market by storm. They have sufficiently leveraged the size of their company, partners, and learnings. As Zalando sees making adaptive products both morally good and a financial opportunity, other companies can expect to move the same direction soon. Accessibility of products is a main KPI of Zalando and they are more than proud of this effort.