RETURN ON DISABILITY

The Global Economics of Disability Report: 2024

Table of Contents

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Executive Summary

Executive Summary[1]

With an estimated disposable income of **over $2.6 trillion,**[2] people with disabilities anchor the largest emerging market in the world. Long thought of as an economically poor demographic, the aging of the baby boomer generation and increased frequency of cognitive/mental health disabilities throughout the population ensures that discretionary spending will disproportionately touch disability over the next two decades.

Despite a growing recognition of market potential, most organizations have failed to capture value within disability. Unlike traditional markets, disability is not constrained by borders, languages, or culture. Rather, it is a combination of functionality and identity: how people interact with their environment, and how they see themselves. It is the functional aspect of disability that is most important. How people interact with products, services and their delivery systems is what is most important for organizations and their design teams.

To date, most actions in disability markets have focused on identity. This has largely been in response to regulation and socio-political activism. When functionality is considered, it typically begins and ends with a ramp and an automated door. Necessary features, but ones that fail to address most functional requirements of People with Disabilities (PWD). Perhaps even more critically, these simplistic steps fail to generate broader downstream benefits in the non-PWD marketplace. Most disability is non-apparent. Cognitive/mental health disabilities are the fastest growing disability types.

Getting disability right means designing *from* the functional experience of People with Disabilities in a way that captures both disability and the general market: not "just" the 22% of the population that disability represents. To date,

1.6 billion
People in the world currently have a disability

>$2.6 trillion
Total disposable income of PWD (USD) in North America and Europe alone

USA:
$1.3 trillion
Total disposable income of People with Disabilities (USD)

Global Disability Market:
$18.3 trillion
PWD + Friends and Family

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1   © The Return on Disability Group. All rights reserved. Redistribution is prohibited unless provided in writing by The Return on Disability Group. This report is for information purposes only and should not be considered a solicitation to buy or sell any security.
2    $2.6 trillion USD represents the disposable income of those with disabilities aged 25-64 in Canada, the E.U., U.K., and U.S. alone.
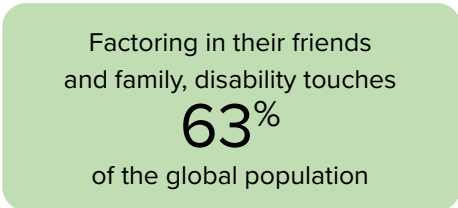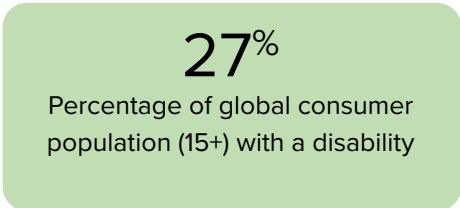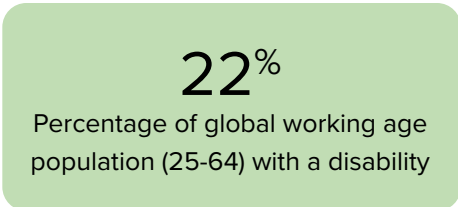
only the largest technology companies – such as Alphabet and Apple – have succeeded in leveraging disability to improve experiences for broader consumers. They do this for one simple reason: a better experience results in higher revenue.

To execute on this strategy, organizations must embed user insights from disability directly into their design processes, aligned with design for non-PWD customers. Doing so allows for the greatest potential market capture by embedding ease of use across a product or service ecosystem. Getting the data right is both critical and the most common gap in design today.

Shifting to this user-centric approach requires action. The greatest opportunity in disability markets has begun, as the wealthiest generation is aging into disability. To respond to discovered demand, new action by leading organizations is required. Competitive organizations must develop new user research approaches, new design inputs – and most importantly – their senior leaders must allocate resources and instill accountability. There remains a small window to lead, but this will close unless leaders choose to act immediately. Those seeking to reduce their risk by following established leaders must start learning and acting now.

> **"Gen-pop" is defined as People without disabilities.**

22%
Percentage of global population (5+) with a disability

22%
Percentage of global working age population (25-64) with a disability

27%
Percentage of global consumer population (15+) with a disability

Factoring in their friends and family, disability touches
63%
of the global population

How to Use this Document

How to Use this Document

This document is intended to assist business leaders, policy makers, and entrepreneurs unlock the value of the disability marketplace – an emerging market representing over $2.6 trillion of disposable income in the United States, United Kingdom, European Union, and Canada alone. This market crosses geographic, linguistic, gender, age, and class boundaries, making it a source of misunderstood value, both as a consumer base and talent pool.

To help unlock value, this report re-orients the reader away from diversity, equity, and inclusion (DEI) and advocacy, and towards one of experience-driven design. Design for both customers and employees. Doing so positions leaders to cultivate delight: the key ingredient to build loyalty, drive purchase decisions, and maximize employee engagement. The insights here are not solely intended to maximize consumer revenue and employee engagement within disability. Rather, this report is intended to push its reader to think of designing *from* disability, with direct effects on ease of use that extends to all users.

This report, on its own, does not create value for you. Rather, it should be used as a departure point to disrupt how you and your organization think about, design for, and ultimately delight your core customer and talent base. Disability represents over 25% of your customers and over 20% of your talent. *Minimum.* Action must flow from board and senior leadership down to customer and talent facing teams – not compliance or DEI.

Those familiar with previous versions of this document will notice significant change. The market is evolving – and so is the report. Previous versions focused primarily on the macro-level. While valuable, an increasing number of firms are realizing the value of this marketplace. It is time to dig deeper.

Since our last global report in 2020, The Return on Disability Group (RoDG) has surveyed over 11,000 People with Disabilities (PWD), and engaged over 1,000 PWD in qualitative research. We have advised executives, designers, and researchers across industries. From this work, RoDG can conclude that unlocking the value in this market is focused on designing great experiences for actual customers and employees. This is the focus of this report. We invite you to read on and visualize your first steps to unlock the value of a marketplace worth over $2.6 trillion.

> **This report is intended to push its reader to think of designing *from* disability, with direct effects on ease of use that extends to all users.**

Introduction to the Disability Market

Introduction to the Disability Market

Defining Disability

Leaders often initially struggle with the size of the disability market. 22% of the total population simply seems too large. "If disability is so large," they ask, "why don't I see it every day?" A reasonable and rational question. The answer is two-fold. First, and most importantly, is the difference between functionality and identity. Second, is variation in how apparent a given persons' disability is relative to our expectations. Both are key inputs to designing for, and from, disability.

Functionality and Identity

At its core, disability consists of two things: functionality and identity. Functionality refers to the approach to perform a given task relative to the "norm". This can include the manipulation of objects using hands. The capacity to see, hear, or speak. The ease of mobility. The ease to process information. The way one interacts with people. Identity refers to how individuals see themselves. Based on experience and/or self-perception, an individual may perceive themselves as having a disability or being disabled. Disability, in the context of experience, does not require any formal medical diagnosis to be activated.

Differences in functionality frequently qualify an individual as being disabled without them assuming the identity of disability. A person with a nagging injury that prevents them from climbing long flights of stairs may not see themselves as disabled, but in a functional sense, their demands are amplified from the norm. This is especially true with age, as people attribute changes in functionality to the ageing process, not disability per se.

Identity is more complex. Lived functional difference may lead to an individual identifying as disabled. The same is true for a medical diagnosis, workplace experience, or social interaction. Having an identity (or not) as disabled can be related to generational and/or cultural differences, especially across disability types. RoDG research has consistently found that the self-identification with cognitive or mental health disabilities decreases with age, even though the medical prevalence of said disabilities increases in this cohort. Identity and functionality do not always align.

70% of disabilites are non-apparent.

From a design standpoint, the value in disability is overwhelmingly tied to functionality rather than identity. The reason is scale. Functionality can align with how the general population consumes products or experiences. A firm that designs products to the needs of a user that functionally struggles to consume complex information will inherently make a product that is easier to use by all.

In this paper, it should be emphasized that the disability market is based on functional disability, not self-identity. This is consistent with the Statistics Canada approach of data collection, which RoDG uses to estimate the size of the global disability market.

Disability Apparentness

The second dimension leading people to underestimate the size of the disability market is how many disabilities are non-apparent. Only about 30% of the disability population has an apparent disability. The remaining 70% have less apparent disabilities.[3] The most apparent disabilities are often accompanied by assistive equipment, such as a wheelchair or a white cane. Users of these tools represent a small minority of the overall disability market, yet the visual image dominates the perception of disability. It should be noted that disability type and the apparentness of a disability are not directly correlated.

Approximately 756 million working aged people (25-64) currently have a disability globally. This represents 22% of the working age population.

Disability Market Size and Spending

Market Demographics

There are approximately 1.58 billion people globally that have a disability.[4] This represents about 22% of the world's population.[5] In Canada, Europe, and the United States, there are approximately 273 million people with disabilities.

While disability rates are highest in seniors, a significant proportion of the working age population also has a disability. Approximately 756 million working aged people (25-64) currently have a disability globally. This represents 22% of the working age population.

The disability population is growing. This growth is not driven only by seniors. By 2030, over 1 billion working aged persons (25-64) will have a disability. This is a product of global population growth. This will be a material source of consumer spending and productive labor for decades to come.

Spending Power

Disability is frequently associated with poverty and unemployment. This is not reality. While incomes and labor force participation rates are relatively lower among PWD, their spending power is considerable.[6] In the US alone, PWD control $1.3 trillion USD of disposable income annually. This does not include accumulated wealth: a key factor given that disability rates increase with age. In addition to the US, PWD in Canada, the EU, and UK control an additional $1.4 trillion in annual disposable income.[7]

Friends and Family

The disability market stretches beyond those that manage functional disabilities. It also directly touches those with close personal relationships to PWD: friends and family. These individuals are affected by the consumer/employee experience of PWD, and make brand choices accordingly. Preliminary research shows friends and family have expressed an intent to switch their spend away from poor experiences or acting as brand ambassadors, depending on the experience relative to disability.

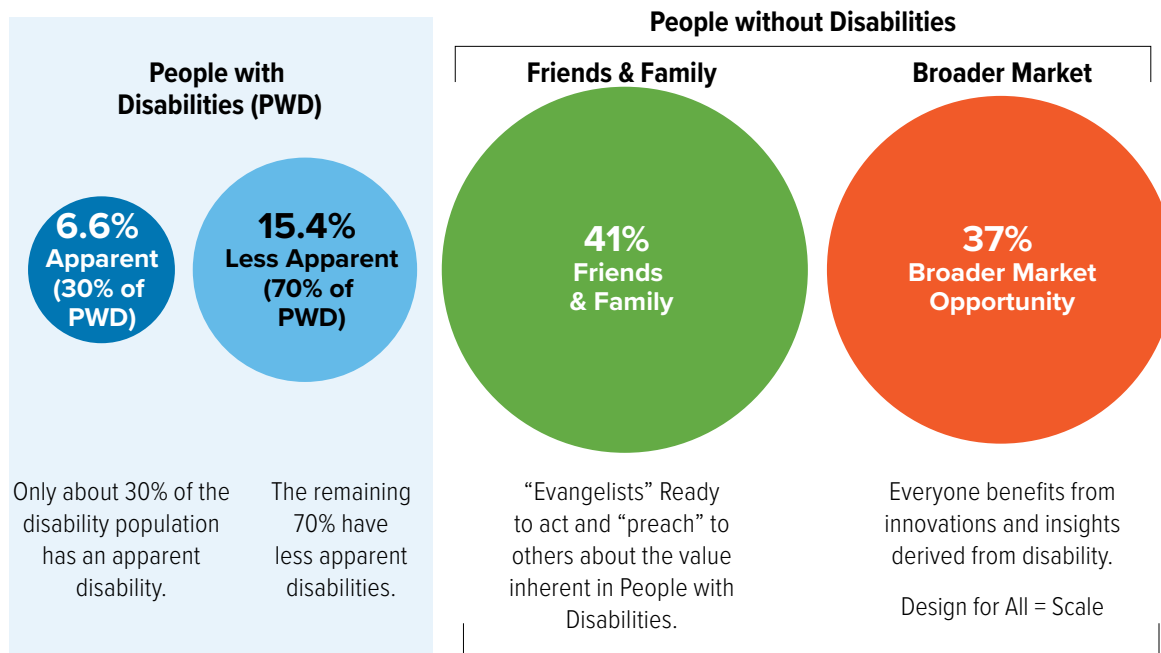3   U.S. Census Bureau Current Population Report: Americans With Disabilities: 2002 (P70-107) by Erika Steinmetz

4   Statistics Canada, *Canadian Survey on Disability 2022* (https://www150.statcan.gc.ca/n1/daily-quotidi-en/231201/dq231201b-eng.htm); Statistics Canada, Participation and Activity Limitation Survey, 2001 and 2006 (https://www150.statcan.gc.ca/n1/pub/89-628-x/2008004/t/5201211-eng.htm); United Nations, Department of Economic and Social Affairs, Population Division, 2024 (https://population.un.org/dataportal/). This population refers to the global population aged 5+.

5   Aged 5+

6   For example, in Canada working aged PWD have a labor force participation rate of 69.6%, compared to 84.8% for those without disabilities. See Statistics Canada, *Canadian Survey on Disability 2022*

7   Note that these income figures do not include Asia, Africa and Latin America due to inherent difficulties in assessing incomes in these regions.

Figure 1: Opportunity in Disability

People with Disabilities (PWD)

People without Disabilities

| Friends & Family | Broader Market |

6.6% Apparent (30% of PWD)

15.4% Less Apparent (70% of PWD)

41% Friends & Family

37% Broader Market Opportunity

Only about 30% of the disability population has an apparent disability.

The remaining 70% have less apparent disabilities.

"Evangelists" Ready to act and "preach" to others about the value inherent in People with Disabilities.

Everyone benefits from innovations and insights derived from disability.

Design for All = Scale

With a conservative estimate of each PWD having 1.85 friends or close family members, the disability market directly touches an additional 2.9 billion individuals globally – **41%**[8] of the global population – with a spending power of over $15 trillion USD in Canada, the EU, UK, and US alone.[9]

Figure 2: Disability Market Population and Incomes

	Canada	US	UK and EU	Global Total
PWD Total	9 million	77 million	125 million	1.58 billion
PWD Disposable Income (USD)	$100 billion	$1.3 trillion	$1.3 trillion	N/A
Friends and Family Total	17 million	142 million	232 million	2.9 billion
Friends and Family Disposable Income (USD)	$580 billion	$7 trillion	$7.8 trillion	N/A
Total Disposable Income (USD)	$680 billion	$8.3 trillion	$9.1 trillion	N/A

8   Aged 5+
9   PWD disposable incomes have been adjusted lower than general population based on ratio differences in median income according to disability functionality in Canada and relative rates of labor force participation between PWD and non-PWD. PWD population calculated using only 25-64 age cohort for purposes of assessing total and disposable income.

Demographic Changes from the 2020 Report

Readers may note that these numbers differ from previous iterations of this report. There are two reasons for this. First, this report uses the 2022 Canadian Survey on Disability (CSD), conducted by Statistics Canada, to create its base disability frequency by age and gender groups. Updated since the release of the previous RoDG report, there have been changes in disability frequency within these categories. The CSD was used to calculate new base frequencies for global disability as its criteria for assessing disability are related to functional ability to perform certain everyday tasks, rather than self-identifying as disabled. Thus, it is less affected by stigma surrounding disability disclosure.[10]

Half of global new consumers, and consumer growth, will come from those aged 50+ in 2025.

The second reason for the change in disability population is that the approach used in this 2024 report results in a more granular set of data on disability frequency across age and gender categories. The 2020 version of this report applied aggregate disability rates to aggregate population. This report breaks down disability frequency by age and gender, and applies different disability rates to each, based on the CSD. While this led to little change in Canada, Europe, and the United States, it did lead to a reduction in global totals due to the significantly younger average population in the Global South.

Demographic Shifts: Boomers and Cognitive Disability (Mental Health)

Two significant shifts are underway that will significantly alter the disability marketplace – in ways that increase its relevance to the economy. The first is an aging effect for a uniquely wealthy generation. The second is increased frequency of, and identification with, cognitive and mental health related disabilities.

Baby Boomers

Those born between 1946-1964, the "Baby Boomers", are the wealthiest generation in human history. In the United States alone, this generation has a net worth of $78.55 trillion USD.[11] Based on the disability frequency rates collected by Statistics Canada, over one third of those in this generation will have a disability by the time they retire. The frequency of disability in this population will only continue to increase over time.

Baby Boomers have not faded away in retirement. At the forefront of transformational changes in our economy and society, this generation continues to assert themselves, spend, and enjoy their twilight years. World Data Lab projects that half of the global new consumers, and consumer growth, will come from those aged 50+ in 2025.[12]

Organizations that can capitalize on this growing demand are well positioned for significant returns.

Cognitive Disability Emergence (including Mental Health)

The fastest growing disability categories are those related to mental health and cognitive disability. In the 2022 Canadian Survey on Disability, reported rates of mental health related disability increased by 8% in the 15-24 and 25-64 age cohorts in Canada. Similarly in the United States, the most frequently self-identified disability type according to the Center for Disease Control is now cognitive, with 13.9% of the US population identifying as such.[13]

The existing size and growth of cognitive disabilities at a greater size and rate than other disability types requires a shift in how organizations approach disability, both as a pool of talent and as consumers. Their demands are different than automated doors, ramps, and built environment concerns that have long been the dominant and capital-intensive focus

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10 Please refer to the supplementary appendix for a more detailed discussion for why this measure was chosen for base frequency.

11 Board of Governors of the Federal Reserve System, *Distribution of Household Wealth in the U.S. since 1989* (https://www.federalreserve.gov/releases/z1/dataviz/dfa/distribute/chart/)

12 World Data Lab. 2024. *The World Consumer Outlook 2025* (https://worlddata.io/world-consumer-outlook/)

13 *Centers for Disease Control and Prevention, Disability and Health Data System* (DHDS) [updated 2024 July; cited 2024 July 15] (http://dhds.cdc.gov); Statistics Canada, *Canadian Survey on Disability 2022*

within disability. As younger age cohorts assert themselves as consumers and talent, designing for cognitive functional needs is essential for sustainable organizational growth.

The functional needs of this growing cognitive disability demographic are likely to be similar to those of Baby Boomers. As Boomers age, they acquire the cognitive functional disabilities. This represents an opportunity to develop immediate and sustainable market growth strategies targeting both older and younger users for scale.

Disability "Types", Market Opportunities, and the role of Regulation

Different disabilities occur with different frequencies in a population. Some disabilities also map more closely to the functional requirements of the general population. The functional needs of cognitive disabilities can include simple and clear information/instructions, additional use of iconography, and simplified process. These have clear benefits outside disability, impacting both revenue and cost. The same is true for easier mobility and wayfinding, larger fonts for ease of reading – especially at a distance. Designing for these functionalities improves ease of use, and thus experience, for all customers. The scale and nature of these disability types more easily allow market forces to shape experience for these customers and employees.

Certain functionalities reflect needs distinct from the general population and occur with relatively low frequency. This makes these disability "types" more difficult to design for in a way that directly increases revenue relative to the cost of development. One example of this is broad design for users with both limited vision and hearing. These Deafblind individuals make up less than 1% of the population. Designing for this specific set of functional requirements may not create value at a scale similar to more frequently occurring disability types.

In cases where specific disability types are less frequent and/or consist of demands which are not supported by market forces, it is essential for governments to create – and enforce – accessibility regulation. Without regulation, organizations may abandon designing for these functionalities, having little incentive to do so. Regulation thus has a role even when organizations understand the disability market. However, it is essential to underscore that adherence to regulations only helps avoid risk. Organizations do not succeed in this, or any market by conflating regulatory compliance with good design.

Effective regulations are experience based, helping markets fill experience gaps that are not supported by profitable actions. Today, disability regulation regimes fit two broad categories: standards-based and litigation-based. Neither regimes have met their promise to PWD. Going forward, global governments must adjust the basket to include explicit funding mechanisms to incentivize action. The target must be to improve outcomes within experience gaps where high barriers impact too few users to allow the market to act independently.

Conclusion

While our estimates of the disability market have changed since the 2020 version of this report, the overall picture is the same: disability represents a source of material unrealized revenue and talent (productivity) for organizations. The market is also growing, both in population and wealth.

Designing for the disability market not only allows capture within the market itself, but also caters to the demands of friends and family. The biggest opportunity, is in leveraging the amplified functional needs of disability to design for easier use experiences for the general population.

Disability Market Trends

Disability Market Trends

At the macro-level, disability trends are similar to those in the 2020 report, insofar as the companies most adept at capturing value in the disability market are large technology companies. Like 2020, most organizations also fail to act materially in this marketplace, save for minimal regulatory compliance. Rather than offering a repeat of this analysis, RoDG encourages readers to review the 2020 report for a macro-level analysis of disability.

Today, our team assessed these market trends: disability-specific products, where disability most frequently "resides" in organizations, accommodations and disclosure, emerging regulatory frameworks, the effects of Covid-19, and the growth of Artificial Intelligence.

first mindset that overcomes nearly all challenges a potential consumer may face, independent of functionality. Dedicated agents ensure products are found, questions answered, and where necessary, products are unboxed so all users can explore their purchasing options.

Highest Performers are in Technology

Like previous years, the highest performers in disability are large tech companies, who (not coincidentally) dominate market performance more generally. Alphabet (formerly known as Google), Amazon, and Apple all continue to drive exceptional value in disability.

The reason for this is simple: an ethos that embeds ease of use early in design processes, with senior leaders being accountable for performance. Unlike most firms, whose actions are primarily a response to regulators, these organizations embed accessibility into their core product offerings, with few accessibility "add-ons" or "workarounds". For all, their products/services "just work" for users – from ordering, to packaging, to information architecture.

Skeptics may point to the largely digital nature of these organizations; however, the Apple retail store is a case in point of embedding ease of use within its core operations. PWD consumers consistently describe the Apple retail store as a great experience, because it embodies a service-

Functionality-Specific Products

Amongst large retailers, there are emerging attempts to address the specific demands of PWD by creating or merchandising functionally specific products. These include railings and handles to be installed in the home to assist mobility, kitchen tools for those with limited dexterity – such as ergonomic can openers, reaching tools, and adaptive clothing lines for those using wheelchairs.

A few preliminary observations can be made on these products. First, they vary wildly in their potential market reach. While an ergonomic can opener may offer universal appeal, clothing designed specifically to delight wheelchair users is limited in its market to approximately 1% of the population[14] – a relatively low value proposition to producers without charging cost-prohibitive price points. It is also unclear whether adaptive fashion is demanded by the intended user or if this is a solution in search of a problem.

> **PWD consumers consistently describe the Apple retail store as a great experience, because it embodies a service-first mindset that overcomes nearly all challenges a potential consumer may face, independent of functionality.**

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14 See Smith et al. 2016. "Prevalence of Wheelchair and Scooter Use Among Community-Dwelling Canadians" *Physical Therapy* 96(8): 1135-1142; World Health Organization Regional Office for South-East Asia Fact Sheet on Wheelchair available at https://iris.who.int/bitstream/handle/10665/205041/B4616.pdf?sequence=1&isAllowed=y

Second, there is no standard terminology through which to market functionality-specific products. Potential consumers can only locate many of these products by happenstance. In our conversations with PWD, many who use such products first discovered them only by accident, when shopping for "standard" versions of the same item.

Where Disability "Resides" in Complex Organizations

A reason many organizations struggle to generate returns in the disability market is that disability is frequently situated far from customer and employee experience. Instead, disability typically resides within DEI offices — an organizational decision that limits opportunities for revenue capture.

> **DEI teams rarely have budgets for design work, nor do they typically have design capabilities "in house".**

Recall that, at its core, disability consists of functionality and identity, with the former being the key driver of day-to-day experience in products, services, and careers. While DEI can perform valuable functions in terms of shifting organizational culture, functionality itself resides outside of culture per se. This means that even if DEI is able to get the identity elements right — eliminating stigma surrounding disability, or improving branding — there still will not be changes in the functional nature of products or services without product or service teams substantively leading the charge.

Organizations that succeed in maximizing the value of the disability market embed disability directly into their consumer and employee experience teams. The reason for this is simple: to get functionality right, it must be used as an input at early stages of the design process. This is only possible when disability gets "pushed" down to design teams, and when their design decisions are held accountable by customer and employee experience leaders. This is how market leaders continue to get disability right. It

is not an add-on or a checklist: it is embedded in how they design. Everything. Through doing so, these organizations not only capture disability functionality, but also uncover ways to streamline processes and improve ease of use across their customer base.

This should not be read as a frontal assault on DEI. In conversation with DEI leaders across large organizations, they frequently describe challenges of pushing disability into design teams, knowing this is critical for execution. Their challenges are twofold: budget and coordination. DEI teams rarely have budgets for design work, nor do they typically have design capabilities "in house".

DEI can serve an important role in disability, but this "D" is not for "design". This inhibits their ability to embed functional needs sufficiently upstream in design cycles to maximize value.

Workplace Practices

Data and Disclosure

Many organizations continue to be focused on collecting internal disability statistics via disclosure. This frequently destroys value and limits employee engagement. The reason is simple: stigma surrounding disability provides a significant disincentive to disclose. Studies on workplace disclosure generally agree that many see disclosure as leading to potentially negative professional consequences. In one study of workplace disclosures, nearly 75% of surveyed PWD reported that risk of job loss or not being hired was a "very important" consideration on their decision to disclose. Over 60% also responded that the potential for limited promotion opportunities was also "very important".[15]

These issues cause workers to avoid disclosure practices altogether. In turn, organizations frequently undercount the number of PWD in their workforce and use this number as an excuse to limit internal disability initiatives.

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15 Sarah von Schrader, Valerie Malzer, and Susanne M. Bruyère. 2014. "Perspectives on Disability Disclosure: The Importance of Employer Practices and Workplace Climate", *Employee Responsibilities and Rights Journal,* 26(4): 237-255.

Given the need to collect disclosure due to outdated regulatory requirements, one tool to better capture internal disability demographics is to leverage expert third parties to conduct internal research. This removes concerns over anonymity and potential stigma. RoDG has provided such services for clients, resulting in disclosure rates 5x that of internally generated data.

Workplace Accommodations

Internally, accommodations are the most frequent focus of disability initiatives. Understanding this process is one of the greatest missed opportunities to leverage learnings from disability to drive efficiencies throughout a workforce. In practice, both intended eligibility and the application process limits opportunities to maximize workplace engagement and productivity – not just for PWD, but for all employees.

Accommodations can benefit more workers than those that have a functional need caused by disability. In one RoDG survey comparing workplace engagement in the United States, 17% of those without disabilities indicated they would "probably" or "definitely" benefit from an accommodation at work. Of this group, over 70% indicated they thought said accommodations would increase their productivity by 16% or more.[16] These numbers were even larger for self-identified PWD. These "unmet" needs reduce overall productivity in the workforce – increasing labor costs for employers. An RoDG survey with Canadian respondents returned similar results.

It is the process of requesting accommodations that most limits employees – with and without disabilities – in receiving them. In the RoDG's US work engagement survey, only 10% of those who perceived they would benefit from an unrealized accommodation, indicated that they had an accommodation request denied. The other 90% of respondents experienced a breakdown earlier in the process – from not knowing how to request, to belief it would be denied, to being uncomfortable requesting (among others). Data from RoDG's Canadian workplace engagement survey showed a similar pattern.

Accommodation costs are frequently far less than most organizations anticipate. In the most recent American Job Accommodation Survey, 56% of employers indicated the accommodation for their employee that needed it cost nothing. 39% indicated a one-time expense, with a median cost of $500. Only 4% of accommodations incurred an annual cost to the company.[17] Consistent in RoDG research is that the most common accommodation requests are flexible scheduling and workplace arrangements. This is true for both PWD and non-PWD.

Workplaces are bleeding employee engagement through their accommodation processes, for those with and without disabilities. They are also missing out on downstream benefits. For example, over 50% of employers in the most recent American Job Accommodation Network survey indicated that providing accommodations increased overall company morale, while 49% indicated it increased company productivity overall. 46% also indicated accommodations increased safety. In 90% of cases, accommodations allowed a company to retain a valued employee.[18]

90% of people – with and without disabilities – indicated their accommodation process broke down prior to a request being made.

Regulatory Frameworks

Since the last publication of this report, there have been two noteworthy developments in accessibility regulation. First, in Canada, the *Accessible Canada Act,* has led to increased consultations with PWD across federally regulated entities and the federal public service. Second, in response to a number of public accessibility failures, legislators in Canada, the

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16   Return on Disability Group. 2023. Accommodations and Employee Engagement Survey. N=2000 (1000 PWD, 1000 non-PWD).
17   Job Accommodation Network (Updated 10/19/2020). *Workplace accommodations: Low cost, high impact.* Retrieved 03/03/2023, from https://askjan.org/topics/costs.cfm
18   Ibid.

United States, and Europe are in the process of introducing and/or reinforcing accessibility legislation as it pertains to air travel.

The Accessible Canada Act

Signed into law in 2019, the *Accessible Canada Act* (ACA) was developed as part of a process to make Canada barrier-free by January 1, 2040. The ACA requires federally regulated entities and crown corporations to participate in continuous 3-year planning/progress cycles. This involves the release of a new public accessibility plan in year one, and public annual progress reports on this plan in the subsequent two years, before starting the cycle anew. This first reporting cycle began in 2023, and those subject to the ACA published their first progress reports in June 2024.

What separates the ACA from previous regimes is that it requires consultations with PWD for both plans and progress reports. Moreover, the ACA currently does not provide strict direction or standards to affected organizations, leaving them room to define their accessibility commitments as most benefits their business operations.

Taken together, this means ACA-compliant organizations can leverage consultations to conduct market and UX research on a demographic that accounts for ~20% of their employees and 27% of their customers. They can then prioritize addressing experience barriers that have the greatest impact on revenue-driving indicators such as ease of online purchase, wayfinding, and employee engagement. Crucially, it helps organizations see beyond built environments – an element of accessibility that is so capital intensive that it often drowns out higher value propositions in this space.

Most importantly, the ACA has the potential to be a unique piece of disability legislation to push businesses towards the user input, design, iterate approach that they would use for any other consumer demographic. RoDG recommends other organizations develop such an iterative, user-centric approach regardless of regulatory incentives.

The Aviation Sector

Since the 2020 disability report, the most significant changes in regulation have been in the aviation sector. Driven by a series of high-profile customer experience failures for passengers requiring mobility assistance, Canada, the U.S. and E.U. have enacted or proposed legislation to improve the experience of passengers with disabilities.

The focus of these new legislative initiatives is predominantly those with mobility-related disabilities and the safe transport of mobility aids.[19] This includes new spatial and accessibility requirements for aircraft lavatories on select aircraft types, enhanced compensation requirements for damaged mobility aids, and enhanced notification for when mobility aids cannot be safely transported on a given aircraft.

In addition, an Accessibility in Aviation summit in Canada, and proposed amendments to Regulation EC261/2004 in the E.U., have both emphasized better collection of passenger experience data in accessibility. Like with the ACA, RoDG recommends such efforts be consistently applied across organizations to the experience of travelers, not merely the accessibility of buildings and aircraft. Without data, good design is a matter of guesswork and luck, not process.

Covid Effects

The Covid-19 Pandemic continues to have significant downstream effects in ways that shape the disability marketplace for both consumers and employees. This includes the market itself, consumer behavior, and contemporary debates about working arrangements.

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19 Prominent examples include potential the Airline Passengers with Disabilities Bill of Rights in the U.S. See U.S. Department of Transportation. 2024. *Secretary Buttigieg Announces Proposed Rule to Ensure Passengers Who Use Wheelchairs Can Fly with Dignity.* (https://www.transportation.gov/briefing-room/secretary-buttigieg-announces-proposed-rule-ensure-passengers-who-use-wheelchairs-can)

Covid-19 and Disability

While the long-term effects of Covid-19 are still under study, it is a near certainty that it has increased the number of PWD globally, likely significantly. Beyond cases of "long Covid", periods of isolation, combined with additional sources of pandemic anxiety, have contributed to an overall deterioration of mental health across populations. This is most evident in younger (ie: non-senior) age demographics, for whom mental health is the fastest growing disability type compared to pre-pandemic sampling.

Consumer Behavior

An effect of social-distancing protocols was an increase in digital retail spending compared to in-person. This trend has continued today, with digital retail expected to grow to 20.1% of all retail purchases globally in 2024. This is expected to grow an additional 3% over the next three years.[20] The global e-commerce market is also growing rapidly, with a near 9% expected growth rate in 2024, for a total of $6.3 trillion.

For those who find travel to a physical location an unwanted effort, these increased digital offerings have led to improved consumer experience. However, this has meant that while some mobility-related challenges have been improved, barriers involving digital wayfinding and the processing of large amounts of digital information have become more important for driving consumer sales.

Even when consumers do choose to shop in-person, digital experiences are essential for organizations to drive sales. In Canada and the United States, on average, consumers conduct online research before 61% of their shopping trips. This is a 25% increase from 2022.[21] Even for physical retail, digital spaces can make – or break – experiences.

Working Arrangements

The biggest change for employees during the pandemic was the widespread introduction of remote work across industries, followed by a contraction of these arrangements following the widespread removal of pandemic protocols.

In discussions with PWD, RoDG has consistently found that the return to office procedures have created numerous pain points, including inconsistencies with contracts signed during the height of the pandemic, and missing equipment upon the return to office. At the same time, RoDG studies on the experience of employees with disabilities have found that the majority of PWD would prefer hybrid working arrangements. Our research has indicated that those employees that are solely remote are concerned about losing the social aspect of work, including fewer advancement opportunities resulting from being "outside informal structures". These hybrid arrangements are increasingly the norm at firms for which work can be done remotely.

Artificial Intelligence (AI)

The biggest disruption in business today is the growth and integration of AI. This is at least equally true in disability. Today, industry leaders are leveraging AI to improve ease of use, both within and outside disability. This includes wider access to captioning, generating alt-text for accessibility, and enabling users to access customized accessibility offerings.

Captioning

For audio experiences, captioning provides a key means of accessing an experience even if it cannot be easily heard. The impact of this reaches far beyond disability, with up to 50% of viewers using captioning for their programming – including 70% of "Gen Z" (those born 1997-2012).[22] AI has enabled organizations to provide far more widespread and timely caption

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20 EMARKETER. 2024. *Worldwide Retail Ecommerce Forecast 2024.* (https://www.emarketer.com/content/worldwide-retail-ecommerce-forecast-2024)

21 1WorldSync. 2023. *2023 Consumer Product Benchmark Report.* (https://1worldsync.com/2023-consumer-product-content-benchmark/)

22 Preply. 2024. *Survey: Why America is obsessed with subtitles.* (https://preply.com/en/blog/americas-subtitles-use/)

offerings, improving viewing experience for all, while simultaneously addressing a significant accessibility demand. At its best, these captions can be customized with varying sizes and contrasts to maximize visibility.

It should be noted that such AI generated captions remain imperfect. However, user feedback from past RoDG studies suggests that imperfect captions are preferable to none at all – and these AI captions have been improving over time.

Alt-Text

A core component of digital accessibility is adding alternative text to images/visualizations that can be read by assistive technologies, enabling all users to understand visual representations, images, memes, etc. While some large organizations do this on external facing materials as a matter of process, small scale content creators frequently fail to do so, rendering their content inaccessible.

While still in relatively early stages, the ability to automatically tag images can render far more user-uploaded content accessible, while simultaneously reducing the amount of human time that must be spent on this process. For context, it took a professional team of 15 writers to tag 3,500 memes per week, *after* they had acclimatized themselves to their platform. For GIPHY, an online memes site, it took this team 5 weeks, at this pace, to tag all content.[23] Further AI development provides significant opportunity to make this process more efficient. To be clear (and generous), this is a work in progress.

Customized Offerings

A key to great experiences is to allow for offerings to be seamlessly adapted for different functional requirements, while maintaining the same core experience for all. One such opportunity in digital experiences is through AI-powered companion features that can leverage features such as text-generation to provide simplified summaries of documents, or to read them aloud, upon request.

Conclusion

Despite greater awareness of the disability market, the majority of firms still limit their action to what is legally required, often directing their efforts at regulators rather than the market itself. Within organizations, DEI often struggles to capture market value in disability, as they typically lack the budget, scope, and expertise to properly embed functionality into design teams to create consistently delightful experiences. Today, the companies that do this best are typically large technology companies, who embed design from disability and ease of use into their core product/service offerings. Disability-specific, or adaptive products, do not capture as broad a market, as they do not add value outside of a specific disability. There remains a small window for first-mover advantage; however, the market dominance of big tech means that other organizations must seize this initiative quickly. In the following section, we will focus specifically on how to better capture the value of disability, both as a market, and as a means of creating better experience for all.

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23 Scribely. *Case Study: GIPHY.* (https://www.scribely.com/case-studies/giphy)

Capturing Value

Capturing Value in the Disability Market

We know most firms act in disability only when forced by regulators. We also know that there are companies – frequently those known for human-centered innovation – that leverage disability to add value. How do they do it? How do they move from regulatory compliance exercises – which cost significant capital and add little return – to embedding disability within their organization? The answer is relatively simple: they design for, and more importantly *from*, disability as they would for any other demographic. And they hold people accountable when failures occur.

Experience, not Compliance, Drives Value

The most important rule for capturing value in disability is that experience drives shareholder returns, not compliance. This is true for both consumers and employees. PWD do not demand accessibility. PWD do not demand the minimum standard, that a product or experience be minimally useable. They demand consistent, positive experience, relative to context – what we call "delight". As an employee, this can mean the trade-offs of upward mobility, compensation, work-life balance, and colleague relationships. As a consumer, this can mean ease of purchase, useability, and those "wow" factors that create brand ambassadors. This is true across the customer journey, from the initial shop to the completion of the experience.

Interestingly, PWD users frequently tell us that this experience is often outside formal regulatory regimes. Blind users, for instance, frequently encounter websites and digital experiences that are technically "accessible" – yet borderline unusable: a consequence of confusing legal risk with user experience. Similarly, RoDG has yet to have a PWD user abort a study because they could not physically enter a location for accessibility reasons; rather, their core pain points more frequently are in-store wayfinding, aisle obstructions, and reach challenges – those that more mirror the experience of those without disabilities.[24] This says nothing for the host of information processing challenges experienced by neurodiverse users and/or those with cognitive disabilities, whose needs are rarely addressed in regulation, yet often have the greatest downstream application for "gen-pop" users.

Let us return to our example of the concierge retail model employed by Apple. Here is a case of minimalist aesthetic design and maximized customer service, to ease the retail experience of the consumer. In designing this experience, users with low/no vision have a single agent to assist them throughout their journey, should they so choose, able to open boxes and guide to desired products. For those with information processing challenges, products can be explained by knowledgeable agents, while those with mobility challenges have reach needs addressed. None of this is an "accessibility" strategy. This is great customer experience that factors in the needs of

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24 This is not to say users frequently do not face accessibility challenges at entrances – they do. However, user ingenuity and outside intervention combine in such a way that this rarely prevents users who seek entry to obtain it – even if it makes for a profoundly negative experience.

27% of the consumer population in addition to the modal user.[25]

The Need for User Data

At its core, designing for disability experience is no different than any other exercise in human-centered design: users must be consulted throughout the process, and their pain points addressed across design iterations. This being the case, and given that several accessibility regimes encourage or require consultation with PWD, why do so many organizations continue to get this wrong? Frequently, this comes down to the sources of user data that design teams work with.

Getting the Data Right

The best data comes from actual users – those most likely to interact with a product or service in their day-to-day life. In human-centered design teams, this insight is obvious: test your design ideas with its intended market. Yet, this process rarely happens with disability. Worse, end users are frequently excluded from what constitutes "user" data. Instead, design teams are often forced to rely on advocates, regulators, or even their own employees who have disclosed a disability for their user inputs. Unsurprisingly, this rarely leads to design decisions that provide a return on investment.

Data Challenges

When organizations do involve PWD directly in design processes, it most frequently takes the form of "expert" advice from individual advocates or advocacy groups. The problems here are three-fold. First, such advocates are rarely the intended end users of the product – not matching the demographic criteria of the product's intended audience, but instead projecting their own experience with disability onto a hypothetical third party. Second, advocates or advocacy organizations rarely have expertise across disability types. Thus, user-experience by proxy rarely covers the spectrum of disability functionality, and almost never in a way representative of the target market. Finally,

almost no advocacy group focuses on the actual user experience, instead focusing on technical disability requirements and conversations of identity and disability language. Disability functionality is thus not leveraged to improve core experience, but also, costly design decisions are frequently made that never touch the intended end-user.

Using regulation as a proxy for experience creates much of the same issue: adding functionality by proxy to a hypothetical core user. The focus is on making the "thing" accessible, not useable. And, certainly, not with any consideration of return on investment.

An example of this "accessibility," rather than experience, mindset, can be observed at most self-service kiosks in airports. These kiosks are frequently designed with an AUX input for headphones, enabling blind users to independently check-in for their flight. However, blind users virtually never encounter these kiosks during travel experiences: blind users travelling with a sighted companion are far more likely to leverage this companion at a kiosk due to the cumbersome nature of the auditory experience, while those travelling alone are brought to a human agent for check-in. Multiple millions of dollars spent on design and remediation, no tangible improvement to blind passenger experience, and no tailwind improvements for other users.

Before moving on, it is worth highlighting one additional pitfall when relying on advocates or regulators at the expense of core users: data inputs rarely occur during the actual intended user journey. This means that while a product may be accessible to users, it ceases to be so once additional journey elements are added (or, in the case of our kiosks, the journey itself precludes the need for the design remediation). A somewhat trivial example of this lack of journey consideration is the all too familiar automated entrance located at the top of a staircase.

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25 Defined as the population aged 15+

Recruiting Users

Relying on end users sounds simple. So why don't more organizations do this? Beyond a lack of consideration of the market in general, most organizations lack the internal ability to recruit sufficient PWD that also meet the demographic criteria of a product or service's target market. Moreover, most major market research firms have failed to consider disability in developing their own user databases, making external recruits often outside the budget of most design teams. This means that even when organizations want PWD users, they struggle to find them at a reasonable cost.

There are two main ways organizations can overcome this user availability issue. The first is to build their own database of potential PWD users. This option is most appealing to those organizations whose design and creative teams own all parts of their operation in house, and who frequently manage large pools of users. Knowing that 20-30% of most user pools will incidentally have a disability, collecting this data over time can prove to be an effective option.

The goal is not to design parallel accessibility pathways, but great core experiences.

However, today, most organizations rely on third-party research firms to provide user inputs. To reach end users, organizations must partner with research firms who have carefully created large pools of PWD users, across disability types and demographic criteria. These firms must also screen this panel to identify professional advocates. While some user studies may indeed benefit from including advocates, past RoDG research has shown that those who self-identify as advocates have different preferences into what makes an ideal product or service compared to PWD non-activists.[26]

RoDG, for instance, has over 4,000 such individuals on its PWD panel as of July 2024, and this number grows continuously. This ensures multiple demographic criteria can be met, and that testing/user input is being conducted by the same group(s) of users. Such a large panel also allows for efficient recruiting of users for virtually any study, at far lower costs to design teams, and in properly designed studies.

User Inputs

Once organizations develop or source pools of potential users, they must decide when and how to collect meaningful user input. While there is not a single best practice, a good rule for collecting insight from disability is to do so early, and do so in a way that overlaps with user inputs from the general population.

In terms of timing user inputs, it should be stressed that changes in design are often far less costly early in a design process than later, with the most expensive being post-release remediation. For this reason, design teams should solicit user feedback especially from those with mobility and/or sensory disabilities in the early prototype phase, ensuring that changes can be made while it is still cost-effective to do so. This better enables design teams to integrate these functional requirements into core design elements, rather than create inefficient alternative paths to useability later in the design process. Most importantly, this also allows design teams to leverage these functionalities to improve design ergonomics for all intended users.

For products or services with a strong information processing component, such as digital products, wayfinding, packaging, or financial data, design teams would be well served to collect user inputs from those with cognitive disabilities as early in the design process as possible. This is because leveraging insights from those that may have challenges processing complex information ensures that any information is communicated as simply as possible. With one client, RoDG engaged in this process for a new packaging regime that resulted in simplified messaging – and materially increased sales.

Regardless of the disability type of the user, two points are worth underscoring. First, the overall methods of collecting user input can, and should, match those of the general population. Whether this be user tests, card sorts, or any of the other

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26 Return on Disability Group. 2024. Media and Accessibility Content Survey. N=612 PWD.

tools in the UX toolbox, insights between PWD and gen-pop must be comparable. There is no separate disability methodology. Second, the goal is to understand how different functionalities amongst the target market shape experience – both for PWD and the general population. The goal is not to design parallel accessibility pathways, but great core experiences. Recent high-profile challenges in aviation – in which technically accessible processes exhibited spectacular breakdowns – are testament to this.

In our experience, design and/or creative teams sometimes struggle to relate the functional requirements of PWD to those without disabilities. For this reason, RoDG recommends integrating professional researchers and/or designers with experience working with PWD in UX and design projects into native teams, especially as organizations develop their disability "muscle". Note the emphasis is on *professional,* not necessarily having lived experience with disability (though the two of course can coincide). The lived experience must come from the users, not the user researcher or designer – the part of the market a product/experience is being designed *for.*

Once this process is developed – recruiting users and integrating them into UX data collection, the final step is to iterate. As design teams make changes and new prototypes emerge, both PWD and gen-pop insights must be collected to ensure the final product maximizes experience for all users.

Design From, not For, Disability

To maximize return on investment in the disability market, organizations must not think exclusively of delighting People with Disabilities (though this is a necessary component). Rather, organizations should be leveraging their learnings from disability users to find new markets and improvements within the remaining 73% of the consumer population.

A commonly used example of this is voice-activated computing, such as SIRI and various home or auto companion technologies. While such technology enables those with, for example, vision or dexterity challenges to better interface with technology, it does the same for the remainder of the population in every instance in which vision or dexterity are focused elsewhere. Notably, this includes while driving, thus enabling responses to text messages or safer changing of music, or around the house for those otherwise encumbered by household tasks. More accessible, more useable, greater return.[27] Apply the same thinking to retail environments: changes that make for easier navigation in a wheelchair are likely to lead to easier navigation for those with shopping carts or strollers.

Regulation and Risk

Designing from, and for, user experience allows organizations to maximize their return on investment in the disability market. Starting with user experience, organizations can utilize their design teams to mitigate the vast majority of their regulatory risk as it pertains to disability while generating UX improvements.

At the same time, a wholly user-centric process is unlikely to fulfill every potential requirement within accessibility legislation. For this reason, RoDG recommends organizations start with user experience, and then "backfill" regulatory requirements. Web Content Accessibility Guidelines (WCAG) requirements, for example, may be a useful tool in design processes, yet most users do not care about compliance with a standard. They simply want the "thing" to deliver the intended experience. They just want it to work.

Embedding PWD insights into the design process can allow for more sophisticated conversations with regulators, thus helping to avoid regulatory risk. There are instances in which regulatory standards have not kept up with common use technologies. While it may be necessary to add navigational buttons to meet regulations,

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27 RoDG is aware that such technology can struggle with various speech-related disabilities. The example is included for its obvious application to most of the population.

in parallel with embedded device technology for touchscreens, over time organizations can leverage a demonstrable process and data to ensure regulators keep up with them, not the other way around. In almost every instance, basic consumer insights and design aimed at PWD are ahead of a regulator's knowledge and capacity.

The Need for Governance and Senior Leadership

No corporate strategy can succeed without effective leadership and efficient governance. This is one of the greatest shortcomings in disability strategy across organizations. It has also made even the most well-informed efforts unsustainable and occasionally futile.

Maximizing returns in disability requires a user-centric approach. Sustaining this means that disability must be owned by user experience leaders at the top of an organization. This is true for both employees and customers. Reporting must go directly to senior leaders, ideally those with "C" in their title. This ensures that those most capable of executing on experience own this file, and that they do so in an environment in which they are held accountable for failures and rewarded for successes. They can then push design down throughout relevant internal stakeholders, as close to the user as practical.

Crucially, a user-centric approach cannot live within DEI. DEI lacks the resources to push the functional requirements of disability throughout an organization, especially as it relates to customers. Disability is first and foremost a design challenge, and DEI is not the design arm of an organization.

From Users, Comes Value

The key to unlocking returns in the disability market – getting disability right – is fundamentally no different from any other user design project. User inputs must be collected, integrated into design, and this process must iterate on itself before and after going to market. Leaders must hold process owners accountable for its success.

Getting design right requires the right data. To do this, insights from PWD must be collected early, and in parallel with the general population. This allows teams to make design decisions with the greatest impact, early in the design process. Late-stage remediation is costly and should be avoided.

Where firms lack the ability to properly recruit users and integrate their functional needs into UX processes, they should partner with external firms until they are comfortable fulfilling these practices in house. At no point should regulators or advocacy groups stand in for actual users. They are not the intended market, and their input can only minimize risk at best, never maximize returns.

And these returns are large – a global population of 1.58 billion, and a spending power of over $2.6 trillion in Canada, the E.U., U.K., and U.S. alone. More importantly, getting this market right means not just unlocking the spending power of this market. Insights and resulting design can be leveraged to maximize experience and fulfill demand in the general population. The time is now for innovative thinking and proper user-informed designs to consistently deliver delight to both customers and employees.

About The Return on Disability Group

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Return on Disability Group

The Return on Disability® Group is a boutique insights and design consulting company. Formed in 2008, RoDG assists clients in unlocking the value of the disability market for both customers and employees.

RoDG leverages a panel of over 4,000 People with Disabilities to conduct mixed-methods UX research on behalf of clients in both the private and public sectors. Participants are recruited directly to match client target markets inside and outside their current customer base. From this user research, RoDG provides and executes design recommendations alongside client

RETURN ON DISABILITY

design teams, embedding new, functional utility in the process. The processes we seed are intentionally repeatable, allowing clients to scale learnings throughout their design environments.

RoDG continually updates its offerings, integrating technologies such as Artificial Technology (AI) and eye-tracking, to ensure our insights are at the cutting edge of user experience.

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