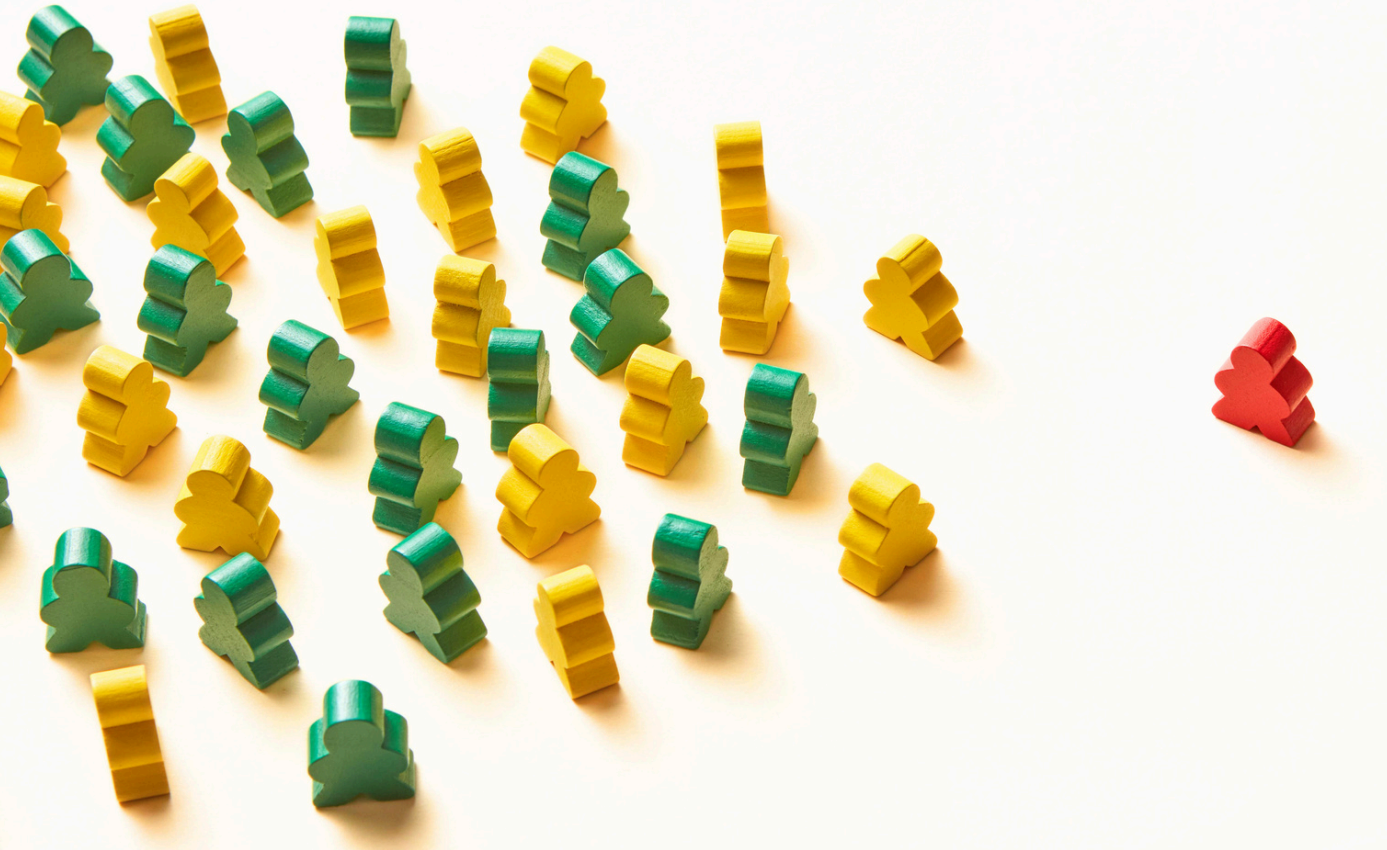
THE HIDDEN WORK OF PARENTING

Redesigning Circular Systems for Effortless, Sustainable Consumption



THE HIDDEN WORK OF PARENTING

Redesigning Circular Systems for Effortless, Sustainable Consumption

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A major research project submitted to
OCAD University in partial fulfillment of the
requirements for the degree of Master of
Design in Strategic Foresight & Innovation

Toronto, Ontario, Canada, 2026

ABSTRACT

Parents are raising children in an era of fast, disposable fashion, where cheap clothes flow through kids' lives at a relentless pace. For many families, trying to choose more sustainable options means navigating fragmented secondhand markets, investing scarce time and attention in search and evaluation, all while managing tight budgets and a constant stream of everyday decisions. These demands fall especially heavily on mothers, who often carry a disproportionate share of the cognitive labour involved in planning, sourcing, and managing children's things.

This project explores why circular clothing options for children are hard to rely on as an everyday default, and how they might be redesigned to fit the realities of family life. Drawing on interviews with parents, market research, and systems mapping, this work traces how fast fashion and secondhand systems interact to reinforce over-consumption, decision fatigue, and the perception that fast fashion offers better value than more sustainable options. The analysis identifies key leverage points for change and develops opportunity areas that focus on easing cognitive load, making value more visible and recoverable, and creating connected infrastructure that makes the system easy to use. The project concludes with design concepts and future scenarios that illustrate how circular clothing systems could become a workable, attractive default for families at scale.

ACKNOWLEDGMENTS

I would like to thank a few people who were integral to the development of this work:

- The 116 parents who took time out of their day to complete the Parent Research Survey, providing invaluable insight into the challenges of managing their children's clothing and gear
- The parents who took time to participate in interviews to share their experience, insights, challenges, and desires for how they currently manage the process of acquiring and offloading their children's gear
- The store owners who took time out of their busy work day to share their insights and experiences of running their stores, and for the joy and service their stores bring to their surrounding communities
- The City of Toronto employees in Waste Management and the Circular Economy Program, who were so generous with their time and knowledge in sharing insights for how we can develop better structures for our city
- My supervisor, Michele Mastroeni, for providing a sounding board to think through some of the big ideas in the messy middle of design, and for the guidance and feedback in bringing this work together
- My friends and classmates in the Strategic Foresight and Innovation program, who provided ideas, encouragement, perspective, and insights into their beautiful and amazing brains, and have challenged me to think differently throughout the past three years, leading to this work
- Previous SFI students at OCAD who have shared their MRPs through the OCAD Repository, which served as a great resource, including Laura Dempsey's report on 'Fashion for a Finite Planet', from which I drew a great deal of inspiration for this report
- The mothers I have discussed this work with, who are lit up at the possibility of change, who felt seen in this work, and who generously shared their ideas and experiences with me
- My parents and sisters for your support, encouragement, thousands of WhatsApp messages; for instilling a disdain for the status quo, and of course, a love of thrifting
- My incredible partner, Jed, for being a champion, a sounding board, and the world's best support system - may everyone be so lucky to have a partner like this
- Our beloved family cat, Bear, who was my constant companion throughout the writing of this report, offering constant comfort and support; he passed shortly after its submission
- My beautiful children, Maeve and Miles, who inspire me endlessly - this is just the start, my loves

DEDICATION

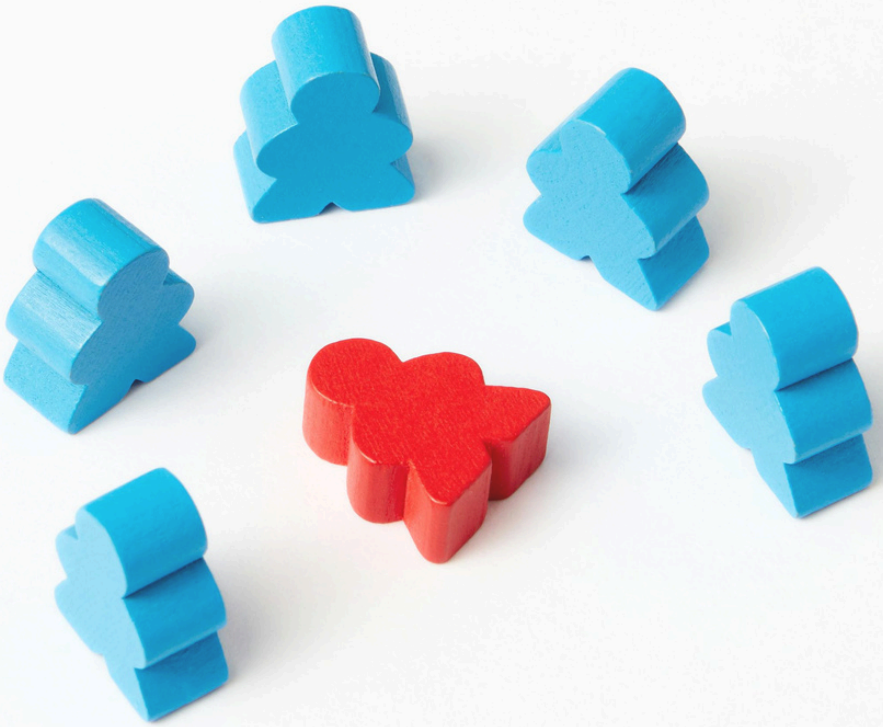
To tired parents everywhere.

TABLE OF CONTENTS

LIST OF FIGURES

INTRODUCTION

Why This System Matters Now



INTRODUCTION

Why This System Matters Now

This section introduces the context for the project, outlining why sustainable consumption in families has become increasingly difficult to navigate. It frames the gap between intention and action and introduces the research question that guides this work.

Why This Matters

- Exploring the pressures of contemporary parenting and household decision-making, and the behavioural gap between what parents want to do and what they can realistically manage.

Methodology & Approach

- Summarizing the research design, tools, and double-diamond process used throughout this work, and previewing how subsequent sections move from understanding the problem to proposing interventions.

WHY THIS MATTERS

Parenting, Mental Load, and Everyday Decisions

Research Question

How does cognitive load shape sustainable consumption decisions in children's clothing systems, and what interventions could reduce the behavioural gap between sustainability intent and action?

A 2023 Pew Research study found that 70% of parents today believe that parenting has become more challenging than it was 20 years ago (Minkin & Horowitz, 2025). Flooded with advice on emotional well-being, development, and "good parenting," today's parents face higher expectations than ever before (Venard et al., 2024). In 2024, U.S. Surgeon General Dr. Vivek H. Murthy formally recognized a mental health crisis of parents in the advisory, "Parents Under Pressure," noting that 41% of parents feel so stressed on most days that they struggle to function.

Pressures such as financial strains from an increasing cost of living, time constraints as parents aim to reach their full potential in their careers while being fully invested at home, concerns about children's health and safety - particularly in relation to technology and navigating social media - and the loneliness that can accompany parenting as we move farther away from the now mythological idea of "the village", have been described by sociologist Dr. Lisa Strohschein as the "intensification of parenting" (University of Alberta, 2024). This new phenomenon explains how parents are expected to closely monitor their children's development while investing significantly more time and energy than previous generations.

At the same time, parents are raising children in an era of climate crisis. Some facets of which, like disposable fast-fashion consumption systems, hit extremely close to home. The textile industry alone accounts for almost 10% of global CO_2 emissions and 20% of global water use (Shamsuzzaman et al., 2025). As children's clothing, gear, and toys turn over rapidly as kids grow, parents are among the most affected by how consumption systems currently function. As parents aspire to create a better world for their children, they are also among the most powerful potential stewards of what a different system could look like, provided sustainable options can realistically fit into everyday life.

Parenting is shaped by a constant stream of decisions that keep households functioning. While not all decisions carry equal weight, many of the smallest ones, like what to buy, what to replace, and what to keep, are the most persistent, contributing to increased cognitive load and decision fatigue. In the Parent Research Survey conducted for this work, a survey of 116 parents found that 78% of parents are thinking about what their children need next, even when they are not actively shopping (50% reported "very true" and 28% reported "somewhat true"). This running to-do list and constant micro-decision-making add up to what is often described as the "mental load" of parenting. Research from the University of Southern California also reports that as much as 73% of this cognitive labour falls on mothers (Aviv et al., 2024).

As a mother of two young children, I was ill-prepared for this reality. The continuous planning, tracking, and decision-making required to manage daily life can feel overwhelming. Even small increases in effort or friction can create a kind of backlog that feels like a "mental traffic jam", where decisions pile up faster than they can be resolved.

And while consumption decisions are only a small fraction of the choices made each day, each one is layered with complexity: Can we afford it? Will my child use it? Is it practical, durable, and available? And is it aligned with my values? Research shows that under high cognitive load, we tend to become more risk-averse ("I just need something that works"), more impatient with money (preferring smaller-sooner over larger-later), and more swayed by the first suggestion we see (Deck & Jahedi, 2015). As a result, the more decisions we are juggling in everyday life, the harder it becomes to make slow, values-aligned choices rather than fast, good-enough ones.

This tension becomes particularly visible in sustainable consumption. Many parents want to make choices that reflect their values and do the best for their children. Yet in practice, these decisions are often driven by what is feasible in the moment, what is fastest, most certain, and easiest to resolve within an already overloaded system.

It was within this gap between intention and reality that this research began. I set out with a seemingly straightforward question: what would it take to make secondhand shopping as easy as Amazon? The underlying assumption was that if sustainable options like secondhand clothes were more convenient and accessible, they would naturally replace less sustainable ones like fast fashion. As it turns out, this assumption was woefully incomplete.

Sustainable consumption is not just a matter of choice at the point of purchase. It is embedded within a broader system of acquisition, use, and disposal. The challenge is not only what comes into the home, but what moves out and how. Managing the flow of children's goods requires ongoing sorting, decision-making, and coordination, often across fragmented and time-intensive systems.

Secondhand platforms like ThredUp, Vinted, and Poshmark have expanded rapidly in recent years, scaling to millions of users and significant revenue growth (Wicker, 2024). In many ways, an "Amazon of secondhand" already exists. Yet these systems have not replaced or displaced fast-fashion consumption systems; instead, they often operate alongside them, compounding cognitive load and increasing circulation without necessarily reducing overall consumption (Mizrachi & Sharon, 2025).

This points to a deeper issue. Circular consumption is not simply a choice, but a fundamentally different system. It challenges expectations around ownership and newness, introducing added complexity in how goods are acquired and redistributed. For parents already navigating significant cognitive load and a high volume of changing goods, this added complexity is difficult to manage and can compound existing stress (U.S. Office of the Surgeon General, 2024). As a result, it greatly diminishes the likelihood of consistent participation in more sustainable options and reuse systems.

This research, therefore, reframes the problem. The gap between sustainability intent and action is not primarily a failure of individual motivation, but a failure of system design. If circular consumption is to scale, it must reduce effort, align with real-world decision-making conditions, and integrate seamlessly into the rhythms of everyday life.

While this research focuses on children's clothing as a proxy, the dynamics explored are intended to extend more broadly to the management of children's goods in general and to holistic household consumption systems more broadly.

METHODOLOGY & APPROACH

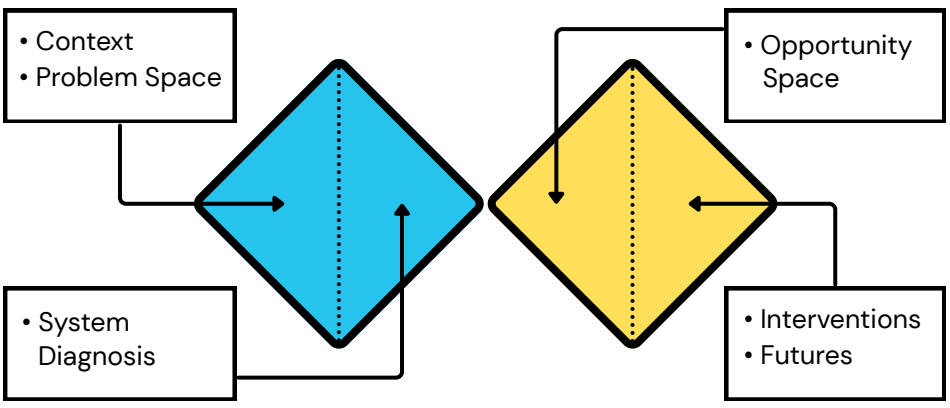
Mapping the Research Journey

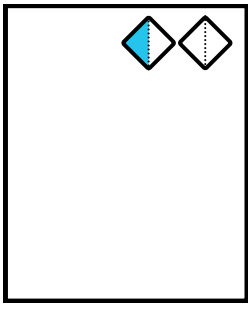
This report follows a double-diamond design process to map how parents make decisions in managing their children's goods. The work begins by listening to the system: situating children's clothing within broader contexts of fast fashion, secondhand markets, and parenting, and drawing on a literature review and a survey of parents (n=116; hereto referred to as the '*Parent Research Survey*') to surface how households acquire, manage, and dispose of children's goods. Insights from this material were then synthesized to define core tensions between circular intentions and the realities of everyday decision-making, using tools such as actor maps, nested scales, and system diagrams.

To deepen this understanding, semi-structured interviews were conducted with six parents of children aged 1–10 in the Greater Toronto Area, two owners of secondhand children's clothing stores, two managers from Toronto municipal waste services, and one policy lead from Toronto's Circular Economy Program. These conversations informed the system diagnosis, in which system archetypes, interview insights, and causal loop diagrams were used to identify recurring patterns that reinforce linear consumption and highlight leverage points for change. The diagnostics then shaped an opportunity space in which market exploration and existing service design successes were analyzed to generate areas for possible intervention.

Finally, the design interventions were developed into concrete directions across infrastructure, market design, and engagement, guided by design principles and strategic design guidelines. Foresight methods and an adapted Three Horizons framework were used to envision system transformation, exploring pathways from incremental improvements to more transformative circular futures.

This report follows a double-diamond design framework:





The beginning of each section will note our position in the double-diamond process

CONTEXT

How The System Works Today

CONTEXT

How The System Works Today

This section provides context to the broader system, outlining how key forces, behaviours, and conditions shape how children's goods are produced, consumed, and managed today. To do this, we look at four key systems that shape how parents make decisions about managing their children's clothing and goods:

The Rise of Fast Fashion

- Understanding how and why fast fashion has become the dominant system and how this influences decision-making.

Secondhand and Circular Pathways

- Exploring how circular and secondhand systems function and what makes them challenging to use in responding to everyday needs.

The Psychology of Consumption

- Understanding how we make decisions as consumers and how and where these nudges are designed into the circular systems and fast fashion.

Parenting and the Mental Load

- Exploring the latest research on how parents are experiencing their role as parents today compared to generations past, the cognitive mental load of parenting, and how this influences decision-making.

SYSTEM EXPLORATION

Mapping the Systems That Shape Children's Clothing Consumption

Within households, the mental load of parenting and daily decision-making limits the capacity to prioritize sustainability (Weeks & Ruppanner, 2024; Weeks et al., 2025; Reich-Stiebert et al., 2023; Deck et al., 2015). The analysis of the Parent Research Survey shows that even well-intentioned consumers often default to convenience when faced with competing demands. As a result, clothing decisions are shaped not only by economic and cultural factors, but by psychological and cognitive constraints.

These four lenses emerged from the primary research. Parents described being pulled by fast fashion, uncertain about how to navigate secondhand and circular markets, influenced by emotional and cognitive drivers, and stretched by the mental load of daily life.

Looking across these four systems provides the context for understanding how children's clothing decisions actually happen. Through their intersection, this research examines how structural conditions shape parental consumption patterns and everyday decision-making, asking:

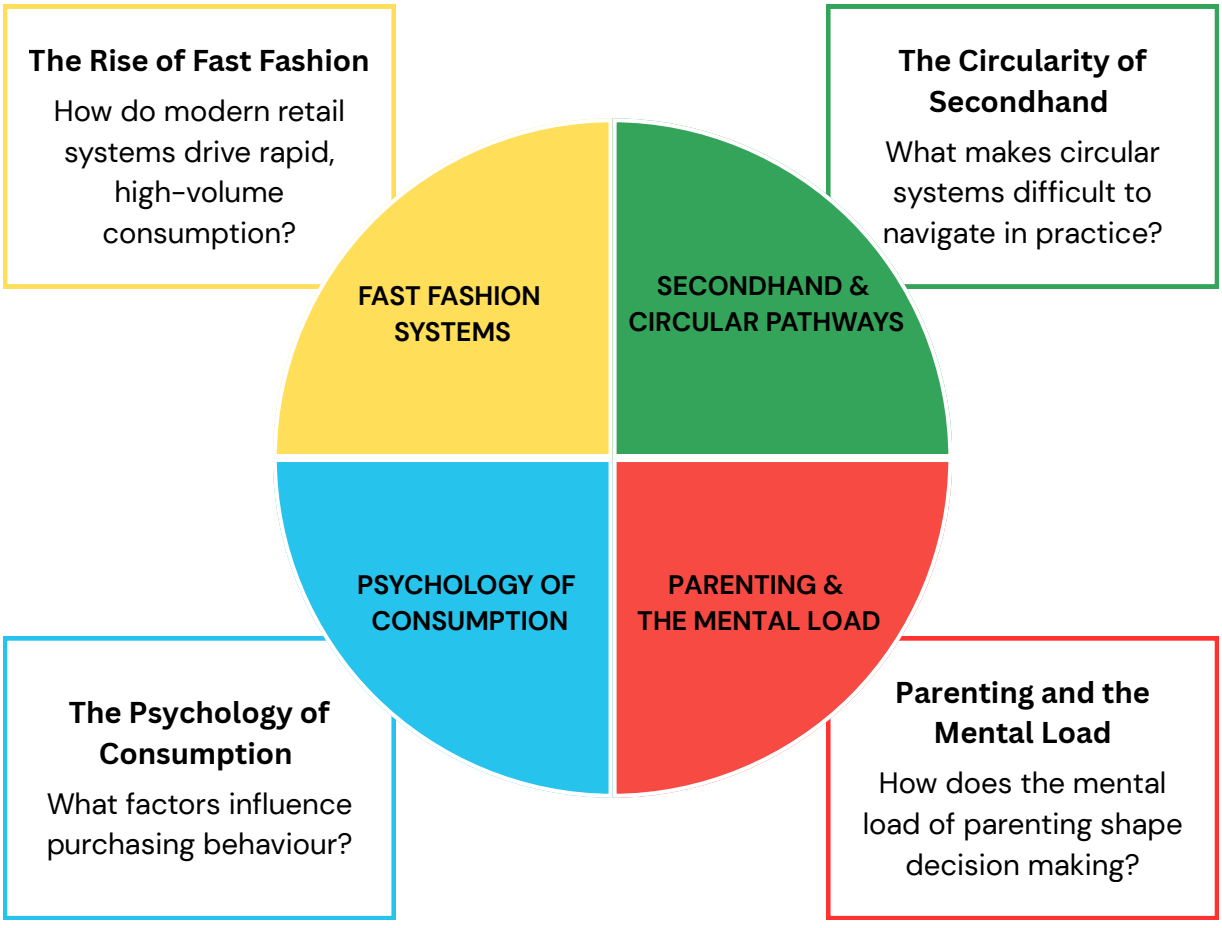


Figure 1. Four Systems Shaping Children's Clothing Consumption.

CONTEXT

THE RISE OF FAST FASHION

How Do Modern Retail Systems Drive Rapid, High-Volume Consumption?

Over the past several decades, the global apparel industry has shifted toward even faster production cycles, lower prices, and higher volumes of consumption, resulting in the fashion industry being responsible for almost 10% of the world's CO2 emissions and about 20% of the world's water consumption (Centobelli et al., 2022). With early globalization policies, including the 1973 Multifibre Arrangement, NAFTA (1994), and the World Trade Organization's elimination of textile quotas in 2005, accelerating the relocation of clothing manufacturing to lower-cost regions, these developments have enabled retailers to scale production while maintaining competitive pricing (UNECE & ECLAC, 2024; Warzecha, 2024).

People walking inside a busy mall outside Zara. Photo by: Burst via Pexels

Following the 2008 global financial crisis, many retailers - such as Zara, Gap, and H&M - moved quickly to respond to increased consumer price sensitivity. To capitalize on this moment, they developed strategies to deliver on-trend clothing at low prices while maintaining profitability (More Perfect Union, 2024).

This was achieved through cost-cutting measures such as increased use of synthetic materials, alongside efficiencies in garment construction and global supply chains. The result was rapid growth. As more brands adopted this model, fast fashion exploded and became the dominant paradigm (More Perfect Union, 2024; Warzecha, 2024).

More Perfect Union's investigative journalism goes on to describe that, as the 2008 cost of living shaped how the industry manufactured garments, the launch of Instagram in 2010 marked a shift in how fashion was produced, shared, and consumed. This rise of influencers created a symbiotic relationship with fast fashion, where influencers benefitted from having constant new content to show their followers, and brands benefitted from increased consumption. What had once been seasonal cycles of launching new clothes in spring and fall began to fragment into 'micro-seasons,' sometimes exceeding 50 per year (Remy et al., 2016). This growing emphasis on more frequent wardrobe turnover has accelerated a production–consumption–disposal cycle that continues to drive global levels of clothing consumption and waste (UNECE & ECLAC, 2024).

The acceleration of consumption and disposal has only intensified with the emergence of ultra-fast fashion in the mid-2010s. Companies such as Shein, which entered the U.S. market around 2015, operate highly responsive supply chains capable of producing small batches of new designs and scaling production in response to real-time demand. What once took weeks to move from idea to market can now happen in a matter of days by scraping emerging social media trends and sending designs straight to production (More Perfect Union, 2024). By 2022, Shein had become the world's largest clothing retailer by sales volume, illustrating the scale and speed of this model (UNECE & ECLAC, 2024; Warzecha, 2024).

Not surprisingly, these developments have further amplified already significant increases in global clothing production and waste. Approximately 100-150 billion garments are produced annually (Shamsuzzaman et al., 2025), with 40%-50% of garments never even being sold (Shamsuzzaman et al., 2025; Tonti, 2024). But even with the Fashion Transparency Index reporting that the amount of clothes on the planet is enough to clothe the global population for the next six generations (Blanchard, 2024), most garments remain unworn, with a conservative estimate that 50% of purchased items are discarded within a year (Shamsuzzaman et al., 2025). Together, these figures point to the short-lived nature of trend cycles and the declining durability and perceived value of many fast fashion items.

While the European Union has begun implementing Extended Producer Responsibility policies that hold brands responsible for recycling their textiles, textile recycling facilities remain nascent, with less than 10% of textiles recycled and more than 80% of clothing waste discarded in landfills (Shamsuzzaman et al., 2025). Current recycling capabilities struggle to breakdown hard to recycle synthetics, many of which also end up in the waste stream (DW Planet A, 2024). This linear consumption model shows how globalized production, accelerated trend cycles, and highly responsive supply chains have created a retail system optimized for speed and volume, with little thought to what happens after purchase.

Fast Fashion Timeline

Highlights of how we got here

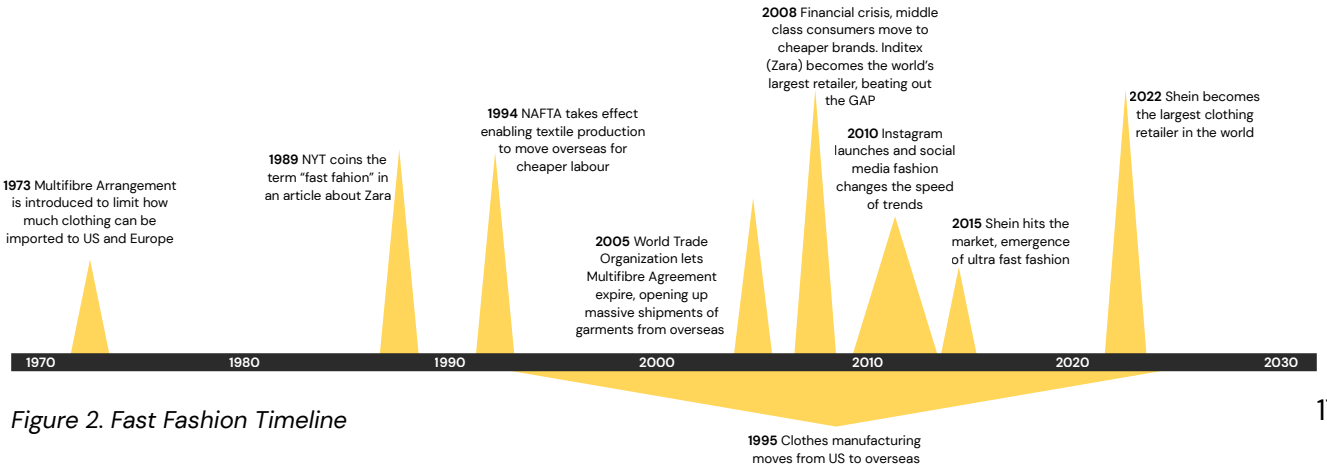


Figure 2. Fast Fashion Timeline

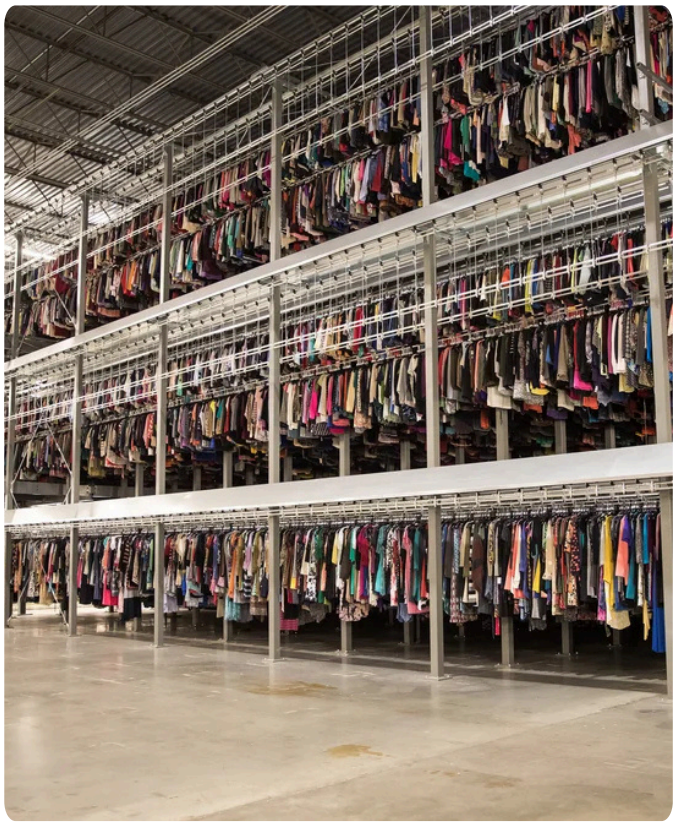
CONTEXT

THE CIRCULARITY OF SECONDHAND

What Makes Circular Systems Difficult to Navigate in Practice?

Cultural attitudes towards secondhand have shifted significantly over the past decade, de-stigmatizing a market once associated only with economic survival (Toneguzzi, 2025). But as the cost of living continues to rise, more people are turning to secondhand and normalizing thrift as a smart, financially savvy response to inflation and rising expenses, with research indicating that while sustainability matters to many secondhand shoppers, most are motivated first and foremost by the need to save money (Butler, 2024; Raszka & Borusiak, 2020).

This mix of practical and ethical motivations has helped fuel the rapid expansion of resale markets over the past decade. Despite this expansion, however, secondhand platforms are struggling with low quality and high logistics costs and are failing to turn a profit (Wicker, 2024).



ThredUp Warehouse; Photo by: ThredUp

Firstly, secondhand systems are highly fragmented, with inventory dispersed across diverse physical and digital spaces. Field research for this project found that in Toronto alone, approximately 20 specialty children's resale shops operate alongside nearly 90 broader thrift and resale stores that include children's sections, complemented by a growing ecosystem of digital platforms such as Facebook Marketplace, Poshmark, and ThredUp. While this expansion has increased availability, it has also made secondhand goods harder to locate, compare, and circulate efficiently.

Secondly, the rapid churn of fast fashion has flooded resale channels with large volumes of low-quality garments, many of which are difficult to resell and quickly become waste within secondhand streams (Faruqi, 2025). As a result, secondhand markets are increasingly saturated with desirable items mixed in amongst low-value stock, making it harder for both retailers and consumers to extract meaningful value from resale.

And while resale platforms and thrift retailers are often positioned as environmentally responsible alternatives, emerging research suggests that the environmental benefits of secondhand consumption are more complex than the dominant narrative implies, showing that secondhand systems can promote moral licensing and rebound effects that actually spur overconsumption rather than displacing fast fashion entirely (Mizrachi & Sharon, 2025).

The Parent Research Survey also found that the way people offload items they no longer need or want exposes a gap between buying secondhand and achieving full circularity. Even when consumers successfully navigate this fragmented landscape to acquire items through thrift stores, consignment, or peer-to-peer platforms, deciding what to do with unwanted goods at the end of their use remains a persistent challenge.

This gap is reflected in the large volume of children's goods that remain unused in households. A U.S. study by Mercari - a digital secondhand marketplace operating in Japan and the US - estimates that American families are holding roughly 272.6 million unused kids' and baby items, worth about $13 billion in total, or $391 per household (Mercari 2022 Reuse Report), with 15% of respondents paying to store items in a secondary storage facility where they sit unused. The Parent Research Survey found a comparable pattern, with respondents estimating an average of approximately $332 in idle children's goods per household, suggesting that substantial resale value often sits dormant rather than circulating through secondhand channels. Even more alarming, the Mercari survey found that approximately 100 million valuable kids' and baby items were thrown away in 2021, worth a cumulative $4.5 billion.

When asked why they do not tap into this potential value, consumers frequently point to a mix of practical and psychological barriers. A PayPal report notes that people often feel unsure about where to start with reselling, are hesitant to transact with strangers, or doubt that the profit would be worth the effort (Nordstrom, 2024). Survey respondents echoed these concerns, highlighting the effort required to photograph and list items online, uncertainty about where to donate, low expected resale value, and the challenge of finding time to deal with the process at all. Many also described emotional attachment and feeling mentally overwhelmed as reasons for holding on to items, with 48% of respondents indicating a lack of time as the main reason preventing them from moving their goods. Together, these factors help explain why garments and children's goods that remain in good condition frequently stay in storage or are discarded rather than recirculated, limiting the extent to which secondhand systems can function as truly circular pathways.

These patterns suggest that achieving circularity will require not only encouraging secondhand purchasing but also redesigning reuse and resale infrastructures to reduce time, effort, and emotional burden for households.

Circular Fashion Timeline

Highlights of how we got here

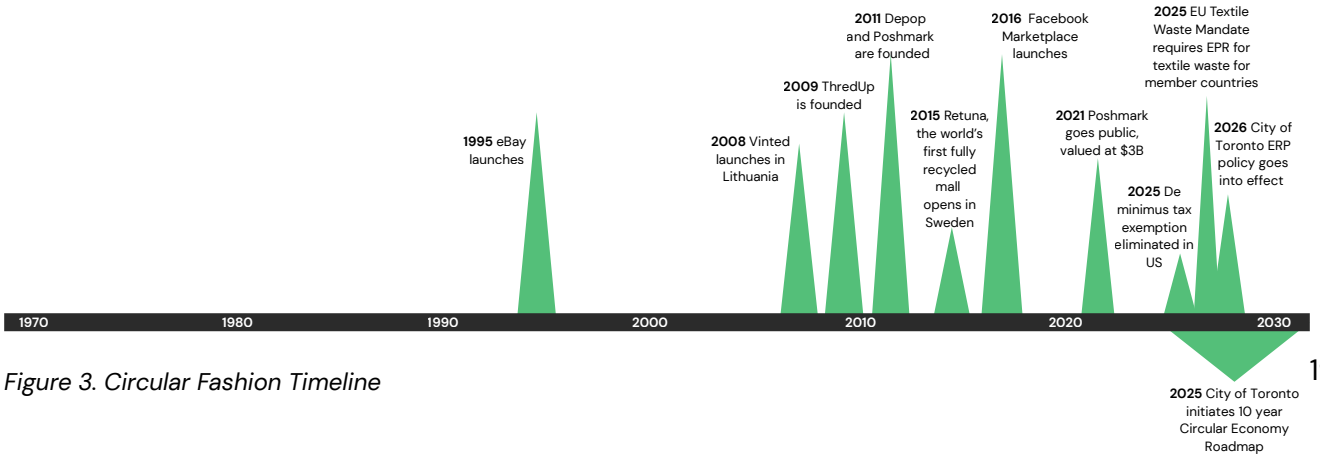


Figure 3. Circular Fashion Timeline

THE CIRCULARITY OF SECONDHAND

Common Disposal Pathway

While textiles are discarded in many ways, Figure 4 below illustrates a typical disposal pathway for fast-fashion garments. A 2023 University of Waterloo study estimates that nearly 500 million kilograms of textiles are discarded annually in Canada, about 85% of which end up in landfills (Riddell & Riddell, 2025). Many garments also flow into overseas secondhand markets such as Ghana's Kantamanto Market - often considered the world's largest secondhand market - which processes an estimated 20 million items a week. Most items are considered too low-quality to resell and end up in waste sites, informal dumps, or the ocean (Business Insider, 2025). What begins as a practical response to cognitive overload ultimately degrades the shared secondhand pool and deepens dependence on the very system that produces the surplus.

1. Purchase

Items are bought from retailers. The lower the quality of the garment, the shorter its lifespan and the sooner it enters secondhand or waste streams (Centobelli et al., 2022).

2. Donate

Unwanted items are resold or donated. Even among those accepted at donation centres, only 25% of items on average are resold (Business Insider, 2025). The rest are quickly off-loaded by donation centres to make space for new intake. A large portion of items are sold to international intermediaries or "recycling centres" (Business Insider, 2025).

3. Resell

Sorting facilities, such as large operations in Karachi, Pakistan, process high volumes of used clothing each year, grading and bundling garments into bales for export to markets in Africa and South America (Business Insider, 2025).

4. Ship

Bales are shipped to secondhand markets abroad. The United States exports over 600 million kilograms of used clothing annually, mainly within the Americas, while Europe sends about 1.5 billion kilograms, largely to African countries (Business Insider, 2025).

5. Dispose

Vendors buy bales sight unseen, with around 40% of the clothing is deemed unsellable on arrival. Low-quality items that are difficult to resell often end up in informal landfills, such as the Atacama Desert site in Chile, where a large pile of discarded clothing - that can be seen from space - caught fire and burned for two weeks in June 2022 (Business Insider, 2025; Warzecha, 2024).

Figure 4. Common Disposal Pathway for fast fashion garments

THE PSYCHOLOGY OF CONSUMPTION

What Factors Influence Purchasing Behaviour?

As retail options expand across physical and digital marketplaces, consumers face an increasing number of choices. While greater choice can improve access, research suggests that excessive options can complicate decision-making (Iyengar & Lepper, 2000). This phenomenon - often described as the paradox of choice - shows that too many options can increase decision fatigue and reduce the likelihood of making a purchase. In this 2000 study by Sheena Iyengar and Mark Lepper, shoppers presented with 24 varieties of jam were significantly less likely to purchase, than those offered six, illustrating how excessive choice can lead to decision paralysis.

Toy section at Value Village, depicted cluttered shelves with toys in various condition. Author's photo.

These dynamics appear particularly pronounced for households purchasing children's clothing. The Parent Research Study shows that mental load and decision fatigue were the most frequently cited factors limiting purchasing decisions (60%). Other commonly reported constraints included lack of time (44%), cost (39%), and uncertainty about quality or fit (38%). In addition, 25% of respondents reported feeling overwhelmed by the number of available options, suggesting that the proliferation of products and purchasing channels can itself become a barrier to decision-making.

When evaluating purchases, parents tend to prioritize practical considerations, with one survey indicating that price, quality, and design, more so than sustainability, are the primary factors influencing parents' intentions to purchase children's clothing (Shaharuddin & Jalil, 2021). Survey responses in this study show a similar pattern: although many respondents reported caring about sustainability, only 31% indicated that they actively prioritize sustainable options, even when doing so requires additional effort. Whereas, 46% of respondents indicated that they would choose sustainable options if they were convenient (22%) or the fastest option available (24%).

Economic conditions further shape these decisions. For example, research findings show that many respondents are more likely to shop secondhand during periods of economic uncertainty, where cost savings are their primary motivation over environmental sustainability (Butler, 2024). External policy shifts can also redirect purchasing patterns; for instance, volatility in global affairs that affect duty thresholds or tarrifs and raise prices for some ultra-fast-fashion retailers may make resale or locally available alternatives relatively more attractive (Balchandani et al., 2025).

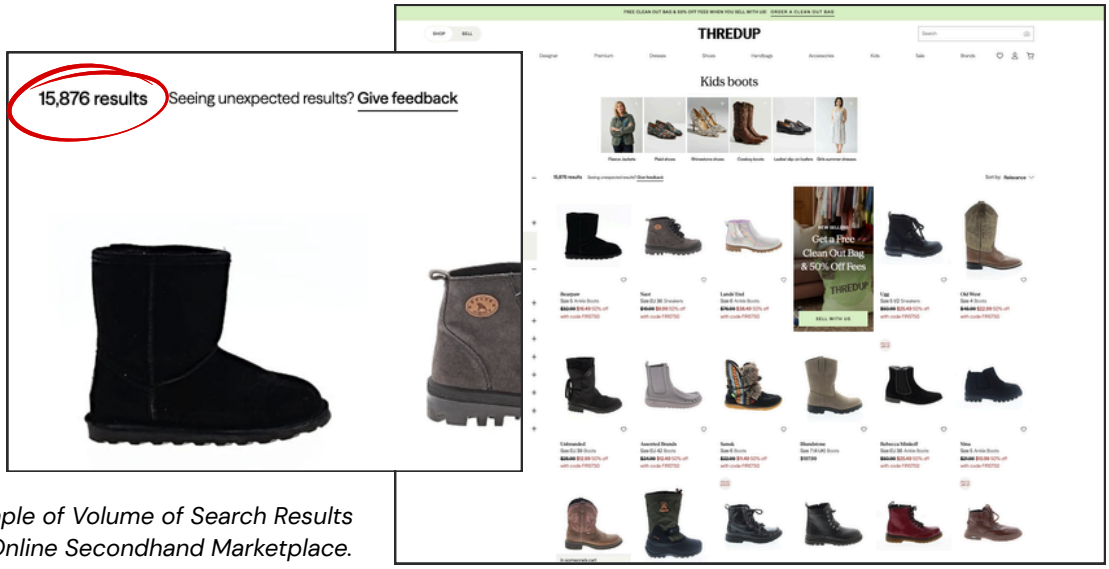


Figure 5. Example of Volume of Search Results in ThredUp's Online Secondhand Marketplace. The image shows a search for "kids boots", ,which yielded 15,876 search results.

Regardless of the motivations, it's heartening to see a global uptick in interest in and success of secondhand marketplaces. The concern, however, is that as secondhand marketplaces proliferate and add ever-increasing inventory, this may intensify decision complexity and make shopping on these marketplaces less desirable and viable. As resale expands, inventory is dispersed across multiple stores and digital platforms, requiring consumers to evaluate price, condition, sizing, and quality across fragmented channels.

Psychological dynamics may further reinforce cycles of consumption. Research on hedonic adaptation, for example, shows that the satisfaction derived from new purchases diminishes quickly, often prompting renewed consumption (Lyubomirsky, Sheldon, & Schkade, 2005). Similarly, theories of moral licensing and rebound effects suggest that secondhand purchases may psychologically justify continued acquisition, thereby adding to, not reducing, consumption (Mizrachi & Sharon, 2025).

These dynamics indicate that purchasing decisions are shaped not only by price and availability but also by cognitive constraints and psychological feedback loops. As purchasing options expand, households must navigate an increasingly complex decision-making environment in which more choice does not necessarily lead to easier or more sustainable consumption.

PARENTING AND THE MENTAL LOAD

How Does the Mental Load of Parenting Shape Decision Making?

Decisions about children's clothing and belongings are embedded within a broader system of household management that requires ongoing planning, monitoring, and coordination (Weeks & Ruppanner, 2024). Research on domestic cognitive labour describes this work as the mental effort required to anticipate needs, organize tasks, and ensure that everyday life functions smoothly (Reich-Stiebert et al., 2023). Unlike physical household labour, cognitive labour centres on remembering and anticipating tasks, rather than simply completing them (Hogenboom, 2022).

Research suggests that domestic cognitive labour includes four key activities: planning, coordinating, decision-making, and monitoring (Weeks & Ruppanner, 2024). In the context of children's clothing, this can involve noticing when items no longer fit, anticipating seasonal needs, researching options, comparing prices, and determining how to store, resell, donate, or discard items once they are outgrown. Managing children's clothing, therefore, represents an ongoing cycle of observation, evaluation, and decision-making.

Photo by: Ketut Subiyanto via Pexels

Research consistently finds that this cognitive labour falls disproportionately on mothers (Reich-Stiebert et al., 2023; Weeks et al., 2025), with a recent study reporting that it accounts for 73% of cognitive labour work (Aviv et al., 2024). Survey findings in this study reflect a similar pattern: 97% of respondents identified as mothers, and 91% reported that "I handle most of it" best describes their role in buying and managing their children's clothing and gear. In addition to this workload, survey respondents indicated that it can take between a few days (35%) and a week (34%) from realizing a need to acquire something new for their child to resolving it. This shows an ongoing pattern of "mental management", primarily for mothers.

The time commitment associated with these responsibilities is also substantial. Respondents reported spending approximately 5 to 15 hours per month managing children's clothing and gear, including identifying items that no longer fit, researching replacements, purchasing items, organizing storage, and arranging resale or donation.

Beyond time, respondents from the Parent Research Survey frequently described this work as cognitively demanding. 77% reported that managing children's clothing feels mentally demanding (29.3% responded 'very true'; 47.4% responded 'somewhat true'). 78% indicate that they continue thinking about future needs even when not actively shopping (50% responded 'very true'; 27.6% responded 'somewhat true'), and 94% indicate they feel primarily responsible for tracking what their children will need next (78.4% responded 'very true'; 15.5% responded 'somewhat true'). 46% also reported that managing children's belongings almost always feels unfinished or ongoing, with items waiting to be sorted, donated, or replaced.

This cognitive burden influences how households make purchasing decisions. When decision-making becomes mentally taxing, consumers often prioritize convenience and predictability over alternatives that require additional effort (Deck & Jahedi, 2015). In these contexts, purchasing new items designed to make consumption easier for consumers, with nudges like 'recommended', 'buy now', and easy search and curation, may feel easier than navigating fragmented resale markets or coordinating secondhand exchanges. This suggests that household consumption decisions are shaped not only by price and availability but also by the invisible cognitive labour required to manage family life.

Parenting and the Mental Load Timeline

Highlights of how we got here

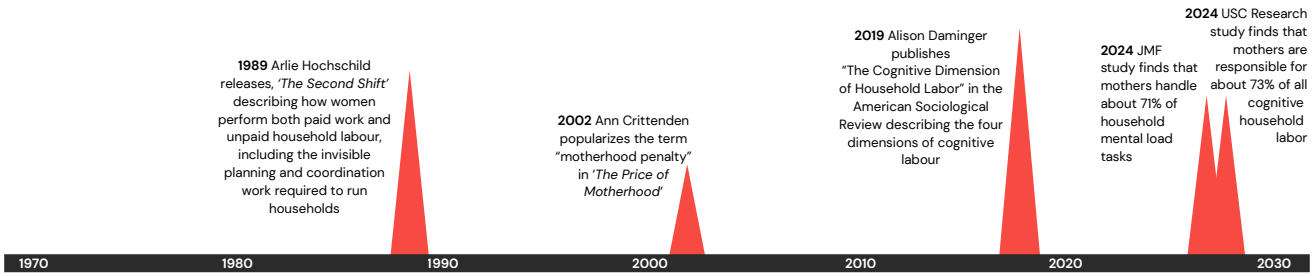


Figure 6. Parenting and the Mental Load Timeline

SYSTEM CONTEXT SUMMARY

How Systems Shape Decision Patterns

Taken together, these four dynamics - fast fashion's volume, fragmented circular systems, the psychology of choice, and the mental load of parenting- create a context in which the desire to "do the right thing" around clothing runs up against the time, effort, and coordination required to act on that intention. This leads many parents to invest considerable personal labour in aligning everyday decisions with their environmental values, and others to fall back on more convenient, less sustainable options.

As resale markets are projected to outpace the growth of traditional fast fashion in the coming years (ThredUp Resale Report, 2025), families are increasingly encouraged to see secondhand as the solution to fashion's footprint. Yet the tensions described above suggest that growth alone will not resolve the everyday frictions parents face when trying to act on their intentions. This points to a problem space located not just in what options exist, but in how systems, contexts, and capacities shape which options are actually workable in practice.

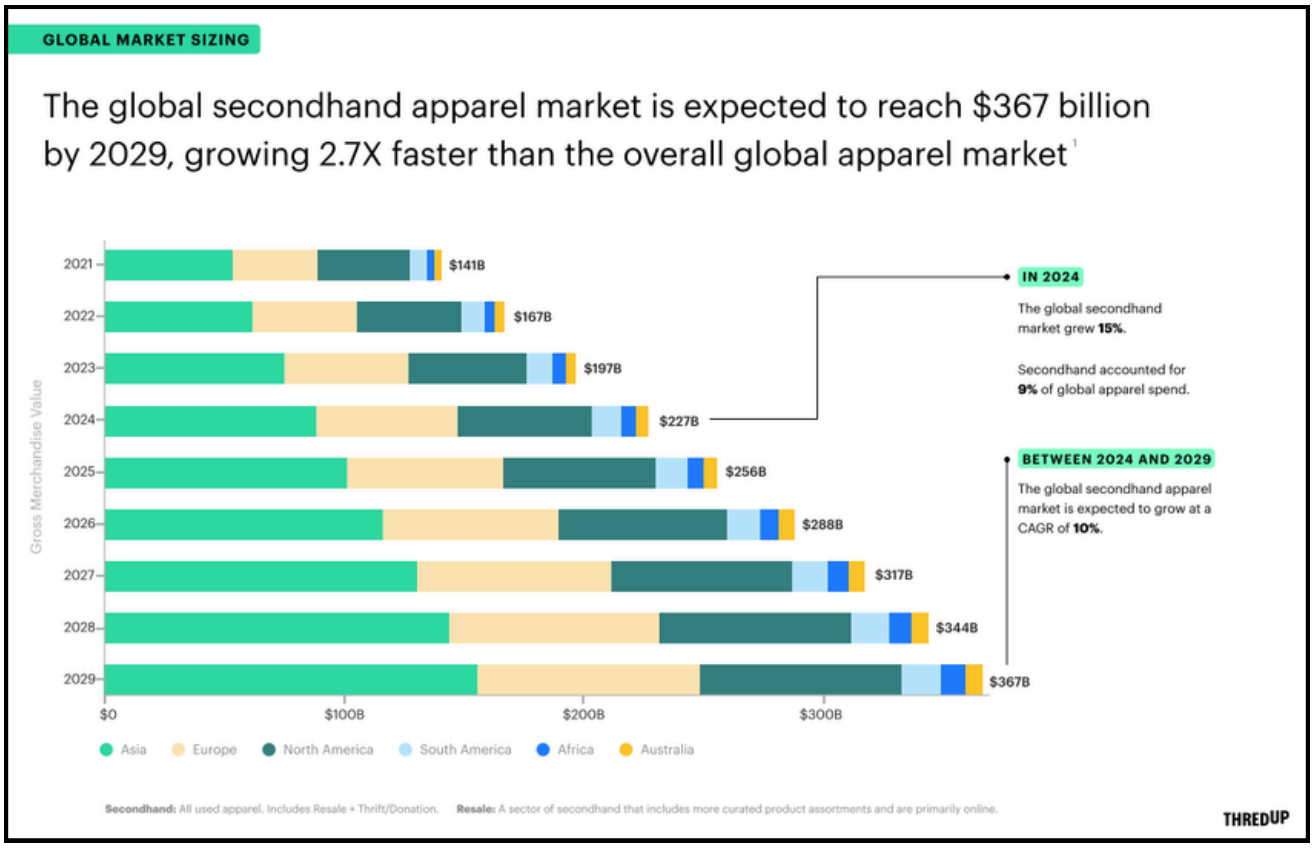


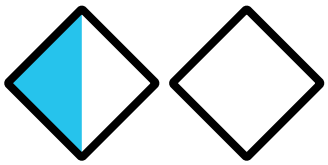
Figure 7. ThredUp's Projected Growth of the Global Secondhand Market

PROBLEM SPACE

Where The Tension Is

PROBLEM SPACE

Where The Tension Is



With a broad context understanding of how these systems function, this section defines the core tensions within the system, identifying where current models fail to meet the needs of households and why these gaps matter. In this section, we will explore:

System Scale

- The levels of the system this work focuses on, from macro to meso to micro, and how they interact to shape children's clothing use. This frames how the levels of the system influence one another and where power is held to change outcomes.

Actors Map

- Next, we map the key actors at these levels and the relationships between them. This shows where responsibilities and incentives are currently misaligned.

System Drivers and Pressure Points

- Building on the actors map, we surface how drivers and pressure points, like rapidly advancing technology and consumer logistics, create bottlenecks for circular options. Here, we focus on how those pressures are felt by parents trying to make everyday decisions.

Parent Hierarchy of Needs

- From the parents' perspective, we then outline a hierarchy of needs that orders what must be true for a circular option to be viable (fit, time, trust, cost, emotional bandwidth). This connects system-level pressures to the criteria that actually govern choices in the home.

System Story Overview

- Finally, we weave these elements together into a high-level system story that traces how tensions accumulate across scales and land on parents as cognitive and emotional load. This story becomes the bridge into the diagnosis and leverage-points sections that follow.

PROBLEM SPACE

OVERVIEW

Unpacking System Scale

Every day, parents make decisions within a layered system that quietly shapes what feels possible, practical, and sustainable. From global production incentives, to neighbourhood resale options, to the everyday realities of family life, each layer carries its own pressures and constraints. Together, these layers create the context in which parents navigate kids' clothing: what's available, what feels affordable, what's easy enough to access, and ultimately, what ends up in the shopping basket. This nested view helps surface how system-level forces cascade downward, concentrating friction at the household level and shaping the choices parents can realistically make.

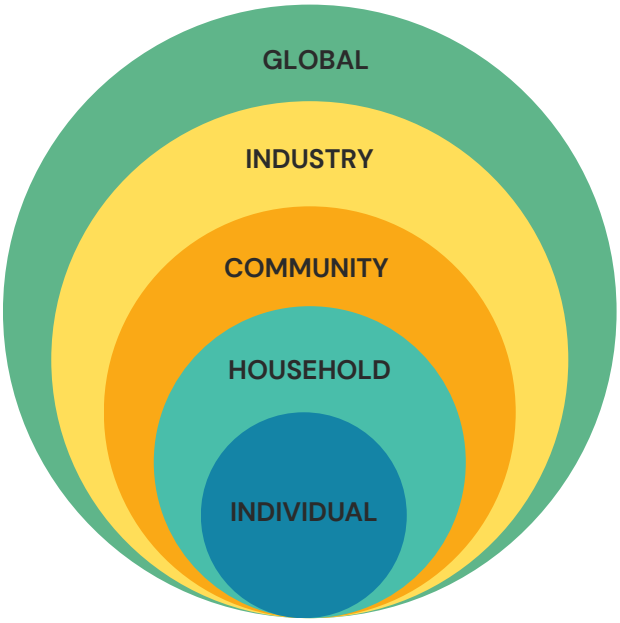


Figure 8. Nested Scales of Children's Clothing Consumption

Key Questions & Considerations:

How do these layered system conditions shape the everyday decisions parents make?

What happens when system complexity meets limited time, capacity, and attention?

MACRO: Global & Industry Context
At the broadest level, parents are making decisions within systems they don't control. Global production models, fast-fashion incentives, and large-scale retail and resale infrastructure shape what's available, how it's made, how quickly it moves, and how much it costs. These forces create an environment where inexpensive, short-lived goods are the norm rather than the exception. This means that by the time an item reaches a parent, many of its constraints have already been determined several layers up.

MESO: Community Context
Most frequently, parents interact with their local systems. Infrastructure at this layer can often support or complicate sustainable choices. Neighbourhood resale stores, peer-to-peer marketplaces, donation channels, swap groups, and community resources all play a role in how children's items circulate. But in many cases, these options can also present a lot of friction. These community-level structures determine whether parents can easily recirculate goods or whether the burden of coordination, transportation, and quality assessment falls back on them.

MICRO: Household & Parent Context
The household and individual layers represent the day-to-day reality of family life, where system pressures turn into time scarcity, clutter, urgent replacement cycles, and cognitive load. This is the layer where parents juggle growth spurts, overflowing closets, unexpected weather changes, school requirements, and the constant work of finding functional items for their kids. When friction accumulates here, fast-fashion quick fixes start to feel less like a choice and more like the only workable option.

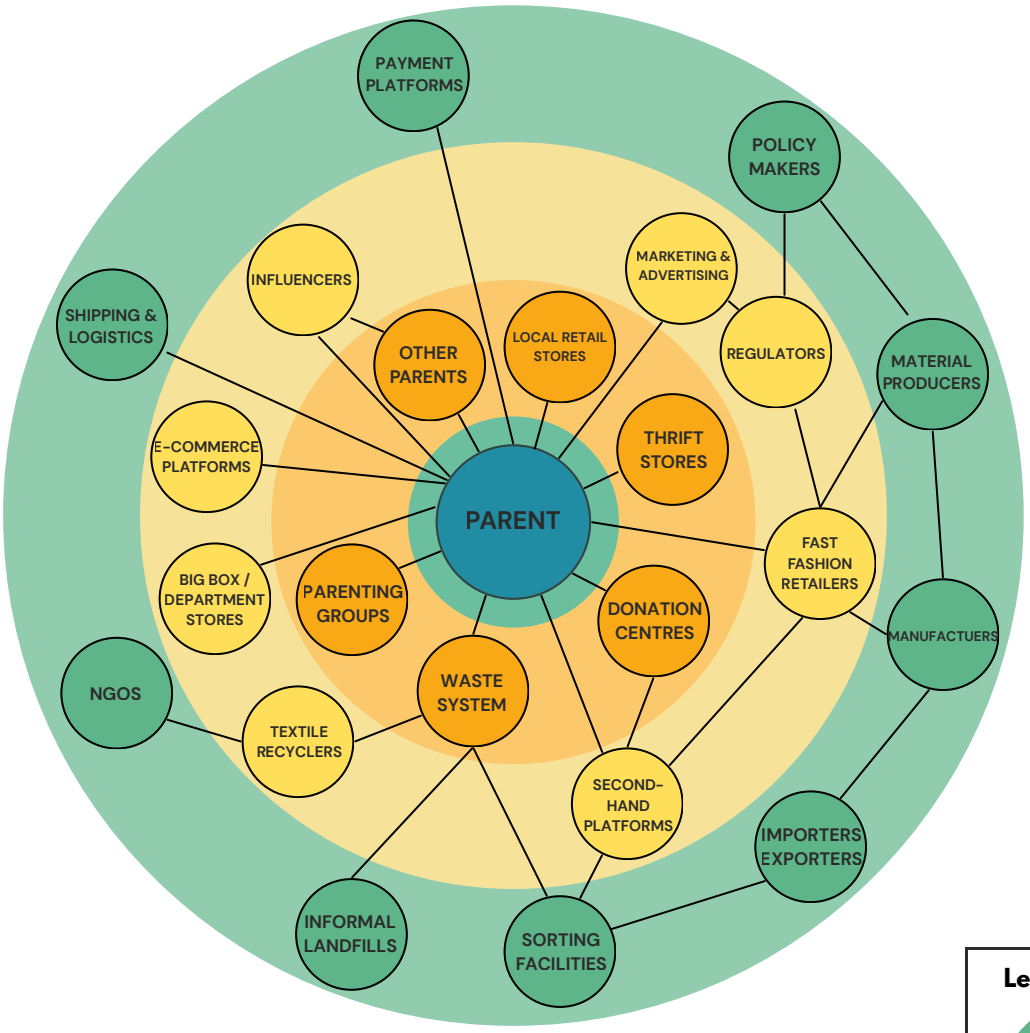
PROBLEM SPACE

ACTORS MAP

Mapping How Key Stakeholders Interact in the System

This actor's map was developed by tracing organizations, platforms, and touchpoints that were mentioned in the primary interviews regarding the acquisition, management, or offloading of children's items. These touchpoints were then clustered into broader stakeholder groups (such as fast-fashion retailers, e-commerce platforms, municipal waste systems, policy-makers, and NGOs) and organized by proximity to the parent, from everyday interactions at the centre to upstream production and downstream disposal at the outer rings.

Together with the previous system-scale view, this map illustrates how coordination and decision-making are concentrated at the household level. Navigating what to buy, where to source it, how long to keep it, and how to responsibly pass it on requires engaging with a fragmented set of actors that are not well integrated with one another. As a result, much of the effort required to make the system function is absorbed by the parent.



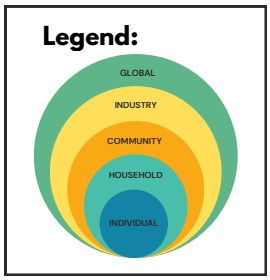


Figure 9. Actors Map of How Parents Manage Interactions Across Children's Consumption System. The diagram places "Parent" at the centre and shows concentric rings of actors across community, industry and global circles.

PROBLEM SPACE

SYSTEM CONTEXT

Exploring the Effects of Drivers and Pressure Points in the System

After understanding the stakeholders involved, this system map outlines the broader context shaping how children's goods are produced, accessed, and circulated. It brings together social, technological, economic, environmental, political, and value-based forces to illustrate how everyday consumption decisions are influenced by both structural conditions and lived experience.

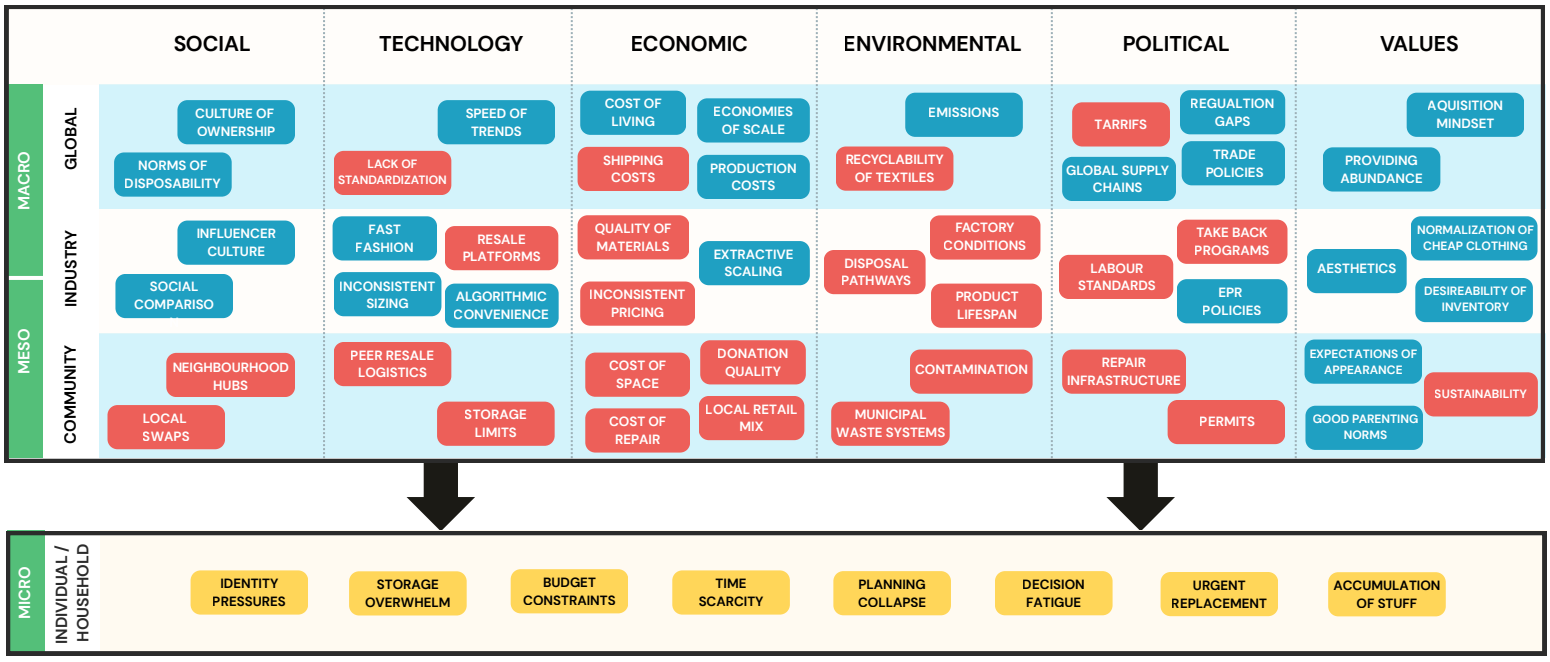


Figure 10. System Context Map of Drivers and Pressure Points Across Scales. From macro to meso and the influence this has on individuals.

This diagram shows drivers: forces that accelerate or reinforce consumption dynamics, as well as pressure points: dynamics that constrain and create bottlenecks. Drivers include factors such as speed and convenience enabled by technology, price competition, and cultural norms tied to ownership and acquisition. These drivers then generate a set of pressures within the system. For example, fast production cycles and global supply chains increase product volume while reducing durability; fragmented resale and donation systems create logistical complexity; whereas inconsistent sizing and quality introduce uncertainty in purchasing decisions.

Again, we see pressures accumulate and are experienced at the household level as a series of effects, including time scarcity, decision fatigue and storage overwhelm.

For parents, these system dynamics are experienced as a constant stream of decisions and coordination tasks. The combination of fragmented systems, unclear information, and competing priorities places a significant cognitive burden on households, shaping not only *what* decisions are made but also *how* they are made.

Legend:

DRIVER — a force that accelerates or reinforces consumption dynamics
we ask: is this pushing things forward?

PRESSURE POINT — a constraint or bottleneck that creates friction
we ask: is this holding things up?

EFFECT — an outcome felt from living in this context
we ask: is this a result of system drivers and pressure point?

PROBLEM SPACE

PARENT CONTEXT

How Decisions Get Made

Given how system drivers and pressure points influence a household, parents are not simply making purchase decisions; they are navigating competing pressures across emotional, practical, and social dimensions. This graphic represents how parents experience decision-making in this system of competing pressures. While they may not always follow this progression linearly, we typically see decision-making cognition start at the bottom and progress upward as the conditions in each tier are met. This can mean, however, that parents operate on different tiers for different decisions within the same moment, depending on factors such as context, urgency, felt need, perceived need, norms, pressures, and visibility. This shows that while many parents aspire to consistently make values-aligned decisions, immediate constraints, like time, effort, cost, and risk, often override longer-term intentions. This corresponds to the research on the effects of cognitive load and decision making (Deck et al., 2015).

Parent Decision-Making Hierarchy of Needs

This hierarchy was created from the analysis of feedback from parent interviews and survey results, to express the lived experience of decision-making as a visual heuristic.

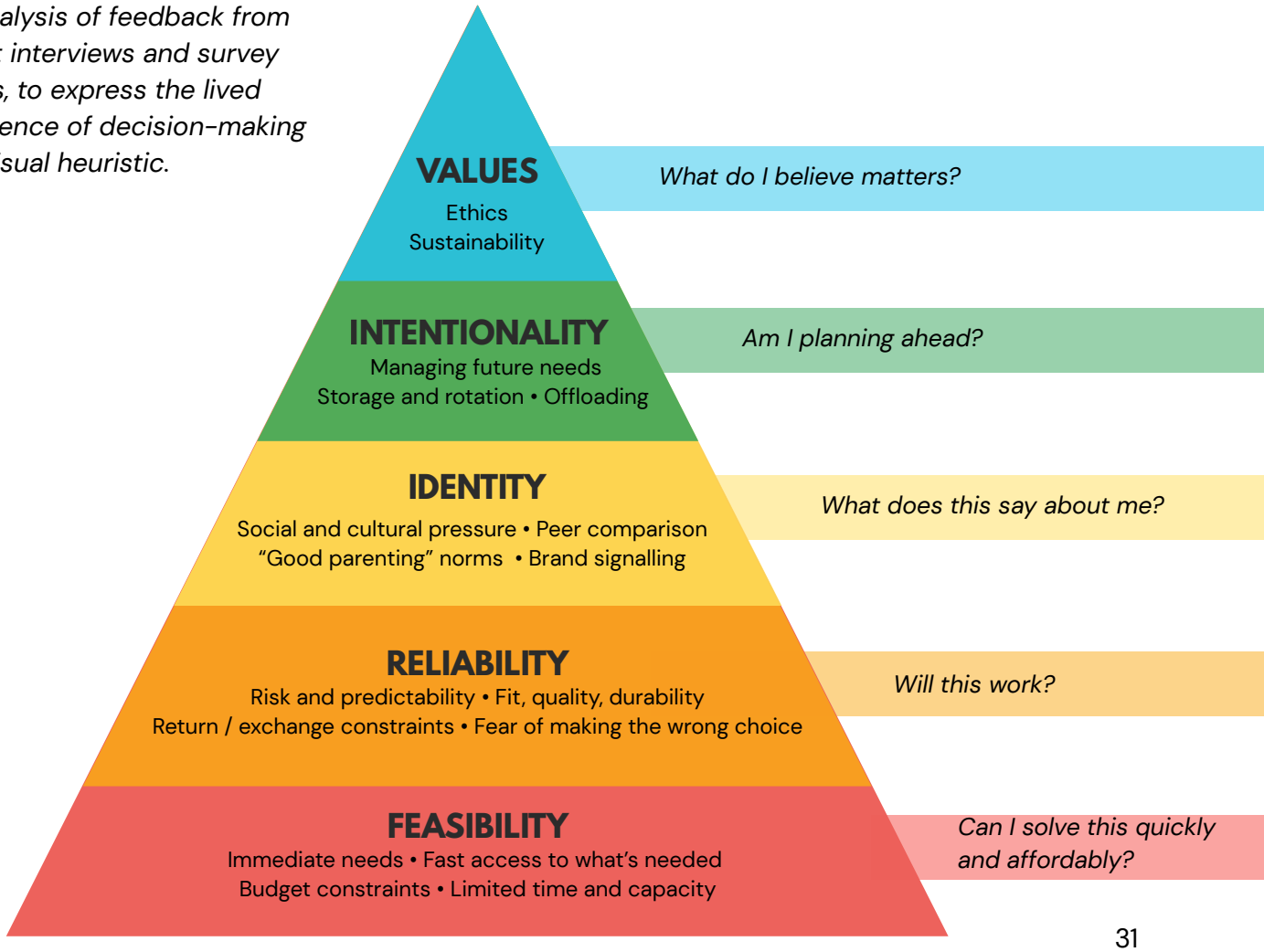


Figure 11. Parent Decision-Making Hierarchy of Needs. Showing a pyramid with feasibility on the bottom, moving up to reliability, identity, intentionality and values at the top.

SYSTEM STORY

This system story brings together the forces outlined in the previous sections to illustrate how everyday decisions around children's goods are shaped and reinforced over time. Rather than a series of isolated challenges, these dynamics operate as interconnected feedback loops that sustain current consumption patterns.

At the core of the system is a reinforcing loop driven by economic pressure. As the cost of living increases, households seek value, often turning to lower-cost fast-fashion options. Over time, this normalizes cheaper, lower-quality goods, increasing reliance on fast fashion and reinforcing demand for affordability over durability.

These dynamics are compounded by time scarcity and cognitive load. Managing children's needs requires constant decision-making, and as time becomes constrained, households default to faster, easier options. This reduces the capacity to search for, evaluate, or coordinate more sustainable alternatives, reinforcing reliance on systems that prioritize convenience.

At the same time, challenges associated with offloading goods - such as fragmented resale systems, logistical friction, and storage constraints - lead to the accumulation of unused items. As goods become harder to circulate, households face increasing pressure to manage both inflow and outflow, further contributing to overwhelm and reducing engagement with circular pathways.

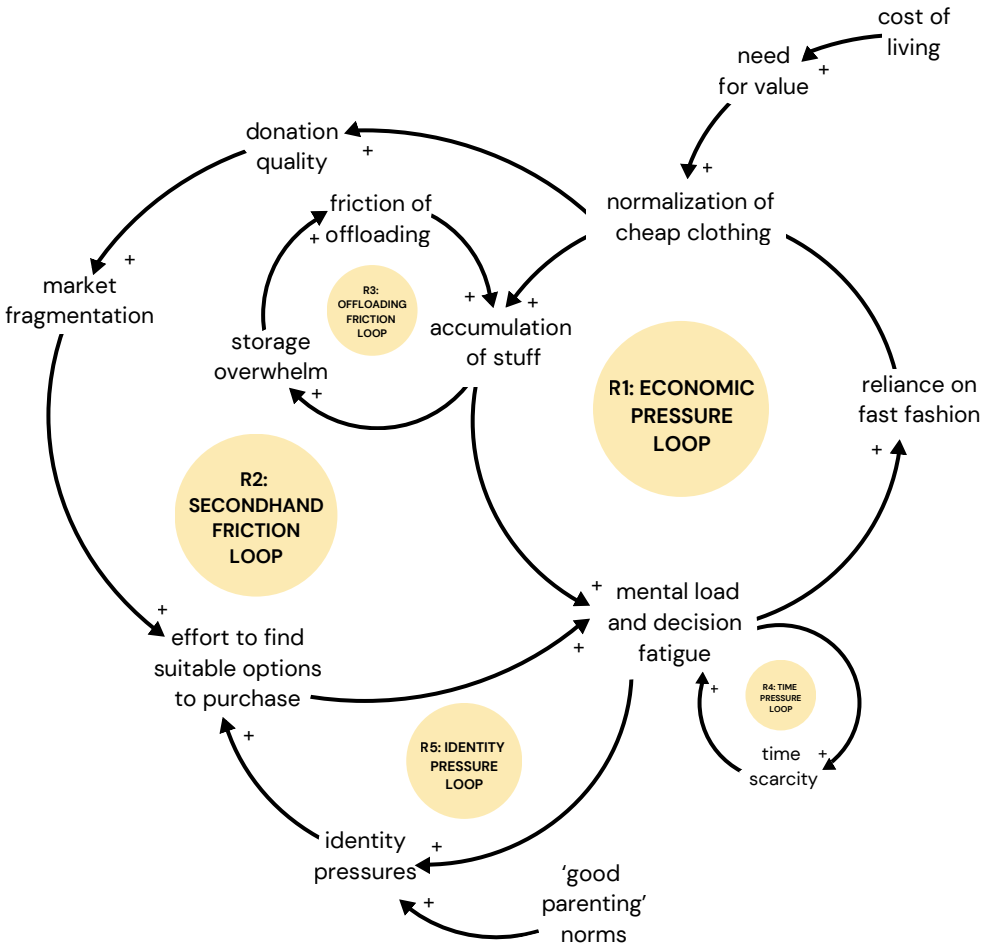


Figure 12. System Story Feedback Loops in Children's Clothing Consumption. Showing five reinforcing loops that create pressure in the system: economic pressure, offloading friction, secondhand friction, identity pressure and time pressure.

Together, these loops reinforce one another: economic pressure drives lower-cost purchasing, cognitive constraints favour convenience, and system fragmentation limits circulation. The result is a system in which fast, linear consumption becomes the path of least resistance, not necessarily by choice, but by design.

In this context, cognitive load is not just an outcome - it is a central mechanism through which the system sustains itself.

CONTEXT SUMMARY

A System Under Strain

As we've seen in this section, continued reliance on fast fashion is not simply a matter of choice, but a consequence of a system that makes less sustainable options more accessible, reliable, and convenient. This is compounded by systemic pressures such as regulatory gaps, entrenched ownership norms, and the normalization of disposability. For parents, the mental load of managing children's consumption needs within a limited time and budget creates additional constraints that often lead to fast, low-cost purchases despite their long-term impact.

As the volume of low-quality textiles increases, so does the risk of overwhelming existing reuse and waste systems. Without the ability to meaningfully displace fast fashion, circular alternatives remain insufficient at scale.

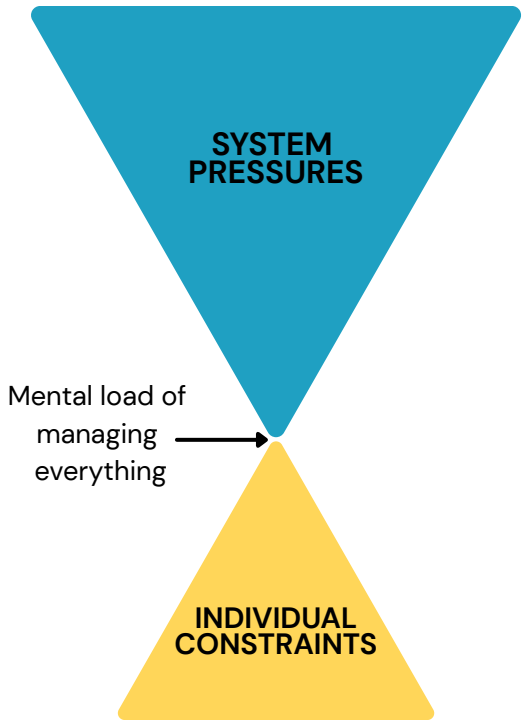


Figure 13. System Pressures and Individual Constraints in Parent Decision-Making. Showing two triangles meeting to depict the pressure of the parental mental load in the middle.

If cognitive load is a central mechanism in shaping consumption choices, then reshaping the system requires reshaping how decisions are made within it. But to make a meaningful impact, the onus of responsibility cannot lie with individuals alone - in other words, we cannot simply ask parents to "try harder". Instead, circularity must be designed to match the speed, ease, and reliability of the current model if it is to have a chance at outpacing it. The challenge then becomes: not how to change behaviour, but how to redesign the conditions under which decisions are made.

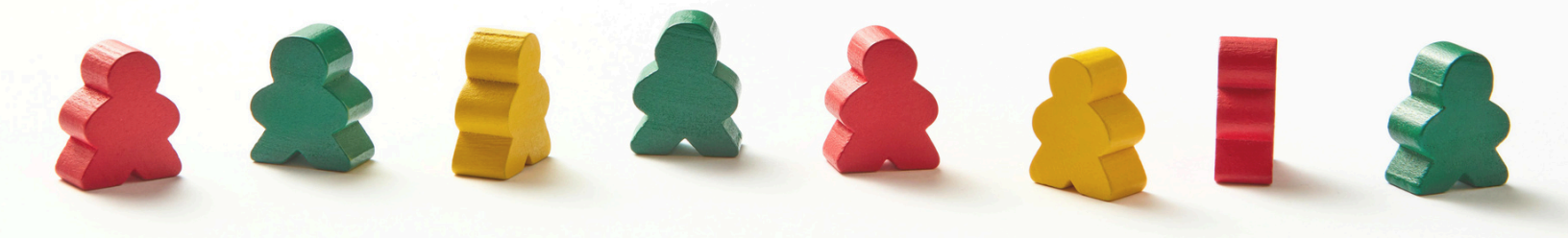
Reframing the Research Question:

How can we shift the burden of complexity from parents to systems, making sustainable pathways easier, faster, and more reliable than fast fashion defaults?

As we move into the Diagnosis section, we will seek to understand why the system is behaving in ways that shape this tension for parents, and where the leverage points are for design intervention.

DIAGNOSIS

Why The System Behaves This Way



DIAGNOSIS

Why The System Behaves This Way

The context reveals how system drivers and pressure points are compounding into micro-level constraints that family households are left managing. As parents attempt to navigate this system, they end up absorbing the complexity that the system fails to manage.

In this section, we will use System Archetypes to understand and analyze why the system behaves this way, analyzing the underlying system dynamics that reinforce linear consumption. The diagnosis reveals that challenges are not isolated issues, but interconnected patterns and feedback loops that reinforce one another over time, making circular options harder to sustain.

Together, the archetypes trace a progression: from the conditions that drive behaviour, to how households adapt, to how the system amplifies and locks in these patterns. What emerges is not a single point of failure, but a set of reinforcing dynamics that suggest where leverage for change may lie.

This section tells the system story through six archetypes:

- **Relieving Economic Pressure**
  - Escalation: The pressure of cost and quality
- **Individualization of Cognitive Work**
  - Shifting the Burden: How households absorb systemic failure
- **Reinforcing Fast Fashion Dominance**
  - Success to the Successful: Why fast fashion keeps winning
- **The Convenience Trap**
  - Tragedy of the Commons: Collective consequences of rational choices
- **Bottlenecks in Circular Growth**
  - Limits to Growth: Why resale growth does not solve the problem
- **The Circularity Paradox**
  - Fixes that Fail: Why current circular solutions reinforce the problem

DIAGNOSIS

RELIEVING ECONOMIC PRESSURE

System Archetype: Escalation

The escalation archetype helps explain how economic pressure among competitors accelerates the pace and volume of fast fashion. Rather than a single company driving change, brands respond to one another's tactics. When one retailer cuts prices or accelerates trend cycles to gain an edge, others feel compelled to match or exceed those tactics to protect market share. Over time, these tit-for-tat responses create a self-reinforcing race in which speed, assortment, and discounting continually ratchet up, even when it results in brands producing an excess of unsold supply (Tonti, 2024).

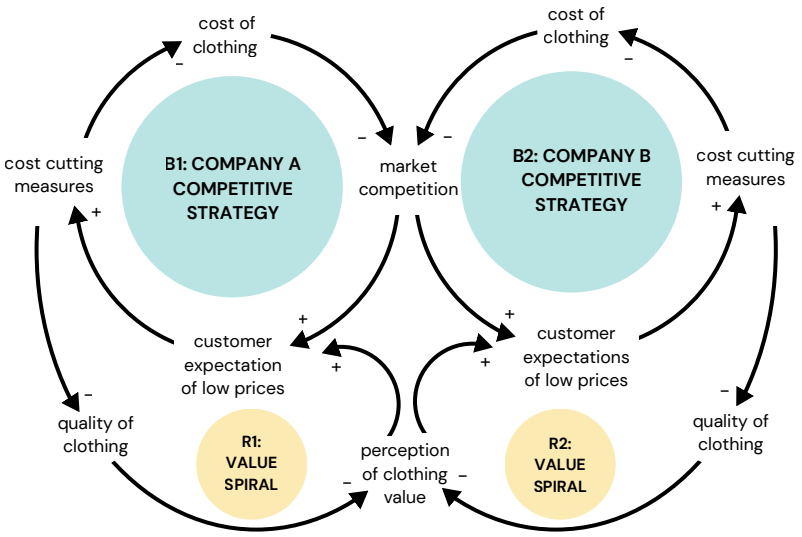


Figure 14. Escalation Archetype: Relieving Economic Pressure

Cost reduction strategies that spurn this race to the bottom frequently include the increased use of synthetic fibres, lower-cost fasteners, and fabric blends incorporating elastane to reduce size variability and expand fit ranges (More Perfect Union, 2024). While these adjustments lower upfront prices and enable a more aggressive end price, they also contribute to shorter garment lifespans. Materials degrade more quickly, fasteners fail more often, and stretch fabrics lose their shape over time, normalizing shorter use cycles and higher turnover rates (More Perfect Union, 2024). In a context where clothing is both cheap and visibly less durable, replacing items rather than repairing or caring for them becomes an increasingly taken-for-granted response.

Parent Survey Statistics

- 39% say cost limits their options
- 44% say uncertainty about quality or fit is a barrier
- 14% say cost ultimately determines their decision

Price becomes the dominant decision criteria when quality is inconsistent or unclear

Within this dynamic, cost becomes the easiest lever for both brands and households. In the Parent Research Survey, 39% of respondents reported that price often limits their options when purchasing items for their children. This illustrates how economic pressure can narrow the space for other values in real purchasing situations. As garments become more affordable and abundant, parents experience genuine budget relief. However, this relief can quickly be clouded when brands present "buy more" options, such as increased discounts, nudging parents to buy more than they need (Remy et al., 2016). These nudges can lead to overconsumption of short-lived, low-cost items that are challenging to offload.

In this way, the escalation loop between brands, where they compete on price, speed, and variety, feeds directly into an escalation of consumption at the household level, crowding out slower, more intentional choices and reinforcing the very dynamics that make fast fashion so difficult to dislodge.

Finding Leverage: Perception of Clothing Value

The core issue surfaced in this archetype is the perception of clothing value and how that value erodes through price competition and overproduction. As garments are produced at increasing speed and lower cost, expectations shift toward lower prices, reinforcing a cycle in which value is defined primarily by affordability rather than durability.

As production volumes rise, quality often declines, further diminishing perceived value. With as many as 40% of garments being produced in excess and going unsold (Tonti, 2024), clothing becomes treated as disposable rather than enduring. This dynamic creates an opportunity to reconsider how value is constructed within the system.

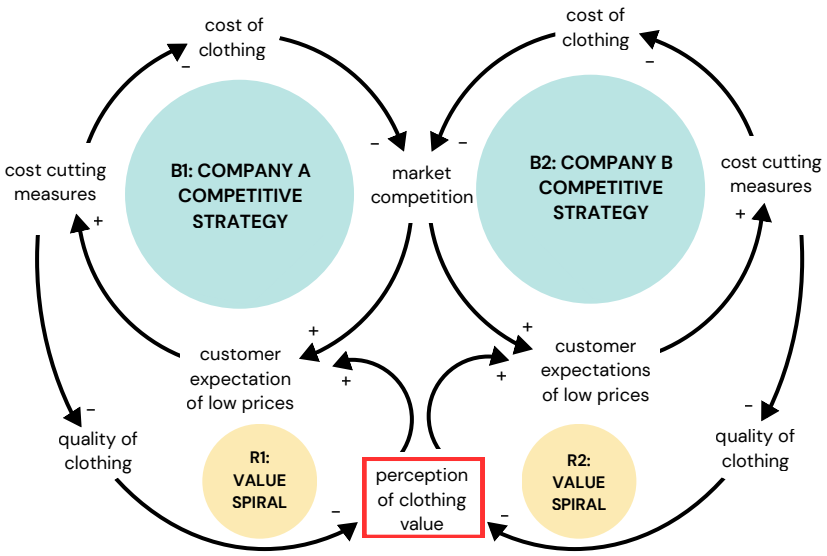
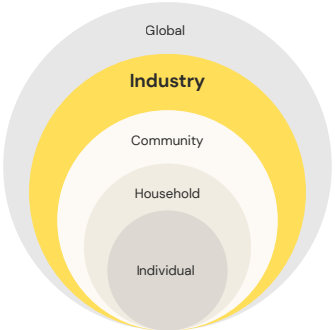


Figure 15. Escalation Archetype: Relieving Economic Pressure Leverage Points. Highlighted leverage point is: perception of clothing value

If value is shaped by how systems are designed, it can also be redefined through system-level change. Reframing clothing as a long-term asset - through durability, repairability, and extended use - offers a pathway to shift both perception and behaviour. Such a transition would likely require coordinated action at the industry level, aligning incentives beyond the initial sale toward ongoing engagement and value retention. Models that support resale, reuse, and continuous circulation, such as Patagonia's Worn Wear, illustrate how value can be sustained across multiple ownership cycles.

Design intervention questions:

- How might systems restore perceived value to clothing so that garments are treated as assets rather than disposables?
- What forms of constraint or governance could slow overproduction and reshape market incentives?
- How might value be communicated through durability, repairability, and longevity rather than price alone?



We see this dynamic operating primarily at the **industry** level influencing drivers like: *normalization of cheap clothing, social comarison, culture of ownership and aquisition mindset.*

INDIVIDUALIZATION OF COGNITIVE WORK

System Archetype: Shifting the Burden

Making a sustainable choice often requires substantial research to identify suitable options. 69% of respondents in the Parent Research Survey said that mental load and decision fatigue limited their options, 61% cited the time required to find the "right" items as a major challenge, and 46% reported that sourcing suitable items takes significant effort. These responses highlight how, for many, the main constraint is not only money but the cognitive work of navigating a crowded retail landscape.

Sustainable options typically fall into two categories: higher-quality new items or secondhand alternatives. Higher-quality new garments, however, are often priced well above mid-market clothing, which has increasingly shifted toward lower production costs and cheaper materials. Parents interviewed for this study noted that, to strike a balance between durability and value, they frequently researched high-quality brands first and then sought to source those same items secondhand. This process spans peer-to-peer platforms such as Facebook Marketplace, local children's resale shops, and larger thrift retailers. They noted that searching across these fragmented channels can feel like a part-time job layered onto existing responsibilities. In the absence of standardized quality gradings or consistent pricing, parents must continually ask themselves: Is this item worth buying new or can I find a similar version for a lower price? Is paying more now better than hunting for a secondhand equivalent? Should I invest in a higher-priced item if my child may outgrow it quickly, or settle for a cheaper option even if the price is tied to lower durability?

This continual negotiation of cost, condition, proximity, and availability introduces its own cognitive and physical load. For many parents, especially mothers, locating and comparing options becomes invisible labour that sits alongside paid work and caregiving (Weeks et al., 2025). Each purchase decision is less a single choice and more an ongoing search process, with repeated cycles of browsing, monitoring, and second-guessing. Over time, the system effectively shifts the burden of "making sustainable choices" onto households, asking them to absorb the work that might otherwise be handled through better product standards, clearer information, and more reliable resale channels.

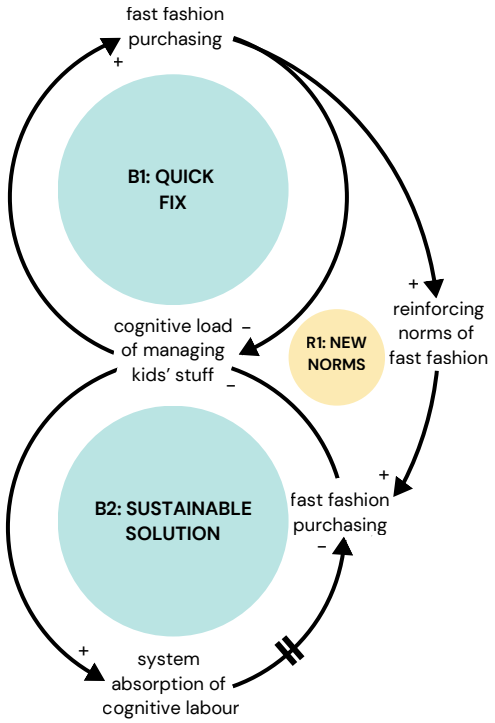


Figure 16: Shifting the Burden Archetype: Individualization of Cognitive Work

Parent Survey Statistics

- 69% say mental load limits their options
- 61% say finding time is a major challenge
- 46% say finding suitable items takes effort

The system offloads coordination and decision-making onto households.

As parents increasingly turn to fast fashion to relieve cognitive strain through simple transactions that feel easy in the moment, this dynamic inadvertently reinforces the very system they are trying to resist. The archetype of shifting the burden captures this pattern. Rather than addressing upstream issues such as product durability, repair infrastructure, or standardized quality information, the system relies on parents to compensate by putting in extra effort. Designing futures that genuinely ease the mental load will require interventions that redistribute this work through better defaults, shared infrastructures, and services that make the more sustainable choice the cognitively lighter one.

Finding Leverage: System Absorption of Cognitive Load

Through this archetype, we see how households absorb the complexity of navigating fragmented resale, donation, and disposal pathways. This accumulation of cognitive labour becomes a key driver of behaviour that pushes parents toward faster, easier options such as fast fashion, even when these choices are misaligned with their values.

As logistical complexity increases, households eventually reach the limits of what is manageable and default to lower-effort alternatives. What appears as a behavioural preference is often a response to system design. This dynamic, however, reveals a critical opportunity when reversed.

If systems are designed to absorb complexity, rather than outsourcing it to households, the default pathways begin to shift. Coordinated resale, repair, and disposal infrastructure, along with centralized collection and redistribution systems, can reduce the effort required to participate in circular consumption. In this model, households play a light coordination role, while the system manages sorting, processing, and redistribution at scale. This could operate similarly to municipal waste systems, which are designed to be simple at the point of use, but supported by extensive, largely invisible infrastructure beyond the home.

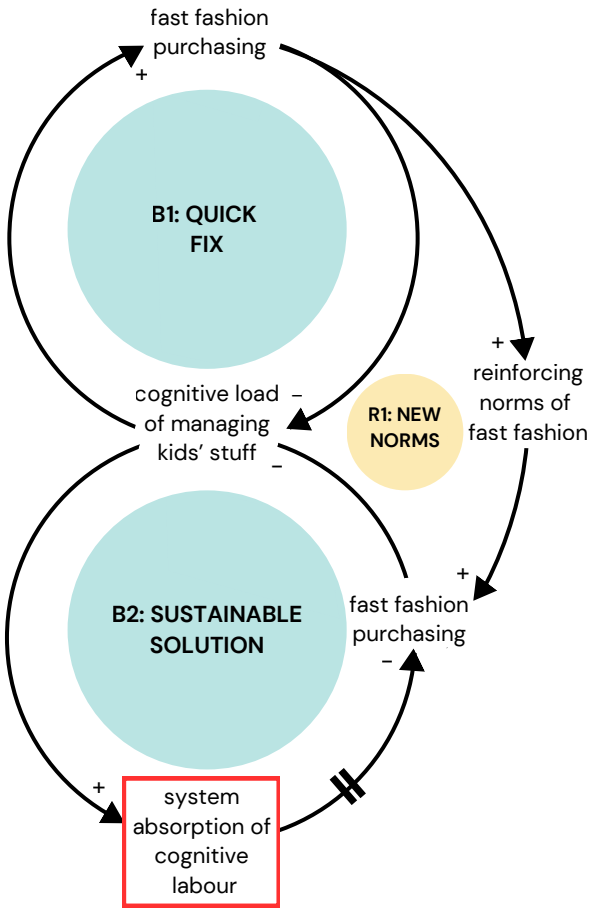


Figure 17: Shifting the Burden: Individualization of Cognitive Work Leverage Points. Highlighted leverage point is: system absorption of cognitive load.

Design intervention questions:

- How might systems absorb or automate the cognitive labour currently carried by households?
- What infrastructures could coordinate fragmented resale, donation, and reuse pathways?
- How might decision environments be designed to reduce effort, uncertainty, and decision fatigue?

We see this dynamic operating primarily at the **community** level influencing drivers and pressure points like: *disposal pathways, resale platforms, inconsistent pricing and sizing and neighbourhood hubs.*

REINFORCING FAST FASHION DOMINANCE

System Archetype: Success to the Successful

Default fast fashion purchases increase the revenue, data, and logistical scale of dominant retailers. Scale, in turn, enables greater efficiency as brands leverage predictive analytics, rapid test-and-reorder systems, and direct-to-consumer digital infrastructure to compress production cycles and reduce per-unit costs (Serrat et al., 2025). As throughput increases, so too does their ability to offer faster delivery, lower prices, and more frictionless returns. These efficiencies then become structural advantages that are produced by volume (Serrat et al., 2025).

Fast fashion platforms further reinforce purchasing behaviour through free-shipping thresholds, algorithmic recommendations, and rapid trend cycles that normalize frequent acquisition (Serrat et al., 2025). For parents, the psychological availability of a "quick fix," where a cart of clothing can be assembled in minutes and delivered within days, can reduce perceived risk and mental effort, especially when quality is hard to evaluate in advance. In the survey, 44% of respondents reported that uncertainty about quality or fit is a barrier, 32% said easy availability of suitable options influences their choices, and 27% said they usually default to the easiest option. Systems that reduce friction and uncertainty, therefore, gain a disproportionate advantage in everyday decision-making.

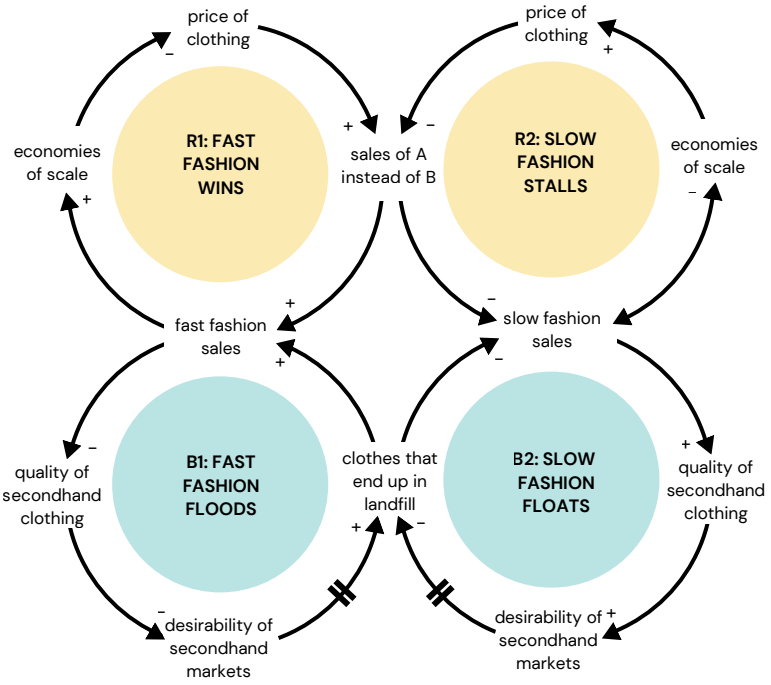


Figure 18: Success to the Successful Archetype: Reinforcing Fast Fashion Dominance

Parent Survey Statistics

- 44% say uncertainty about quality or fit is a barrier
- 32% say availability of suitable options limits choices
- 27% say they default to the easiest option

Systems that reduce friction and uncertainty gain disproportionate advantage.

Meanwhile, secondhand markets operate at a structural disadvantage. Inventory is fragmented across multiple platforms and physical locations; parents must manually search, compare, and coordinate, often with limited information about condition, fit, or return options. Even when individual secondhand stores streamline their processes, they rarely match the integrated infrastructure, marketing reach, and convenience of dominant fast-fashion players. Under time and cognitive constraints, many families "reward" the already successful option, the retailer that feels easiest and safest, which further strengthens its position.

As fast fashion scales, secondhand becomes relatively harder to navigate and less competitive, even when parents express preferences for resale or higher-quality goods. The result is a reinforcing dynamic where cognitive overload drives default behaviour, default behaviour strengthens dominant retailers, strengthened retailers further reduce friction, and reduced friction makes the next default even more likely.

Finding Leverage: Economies of Scale for Slow Fashion

This archetype reveals how fast fashion benefits from scale advantages that circular systems often lack. Large retailers reduce costs through high volume, global sourcing, and standardized infrastructure, which bring low prices and speed. Smaller sustainable brands, by contrast, often rely on local production and higher-quality materials. While these models align more closely with environmental and ethical values, they can face higher prices and limited efficiency, which makes competing on easy decision-making more difficult.

This suggests that the challenge is not only consumer preference but also structural disadvantage.

Figure 19: Success to the Successful: Reinforcing Fast Fashion Dominance Leverage Points Highlighted leverage point is: economies of scale for slow fashion.

If fast fashion succeeds through scale, circular systems may require a different kind of scale that is rooted in regional infrastructure rather than global reach. Emerging research highlights the potential of regional ecosystems as a critical yet underdeveloped element in the implementation of the circular economy (Ruiz et al., 2025). For example, what could it look like to create shared infrastructure that reduces the burden on individual businesses? Where local production, repair, and redistribution systems could hold and move sustainable goods on a coordinated basis, so that consumers encounter them as part of an integrated local ecosystem rather than as isolated options. In this model, scale comes from shared capacity and density, which enables circular systems to compete not by growing outward like the branches of a tree, but by becoming more deeply embedded in everyday life, like the roots that sustain the tree.

Design intervention questions:

- How might circular systems achieve comparable economies of scale to linear retail models?
- What infrastructures could allow reuse and repair networks to grow without losing efficiency?
- How might aggregation or shared systems help concentrate supply, demand, and logistics?

We see this dynamic operating primarily at the **industry** and **community** level influencing drivers and pressure points like: *extractive scaling, factory conditions, sustainability, local retail mix and repair infrastructure.*

THE CONVENIENCE TRAP

System Archetype: Tragedy of the Commons

Fast fashion makes what is often difficult for mentally overloaded parents feel manageable. Large retailers such as Zara, H&M, and Joe Fresh offer department-style assortments that include nearly everything needed to clothe a child, from apparel and shoes to outerwear and accessories, in a single location. Rather than navigating multiple specialized stores or fragmented secondhand markets, parents can purchase everything at once. The Parent Research Survey found that for parents who report spending up to a week sourcing needed items, this consolidation is a rational response to feeling overwhelmed, where one-stop shopping reduces both time and decision-making complexity.

The problem emerges when this individually rational choice becomes collectively dominant. As more parents turn to fast fashion to alleviate decision fatigue and reduce cognitive strain, aggregate demand drives volume increases. Once this growth exceeds a certain threshold, many brands shift toward higher production of lower-quality garments and more frequent style changes, accelerating the flow of short-lived items into donation and disposal streams. In this study, 50% of parents said lack of time limits their decisions, 33% said availability of sustainable options influences their choices, and 27% said they default to the easiest option, even when it conflicts with their stated values. Individually, each decision feels small; together, they reinforce a system that depends on high throughput and low durability.

This dynamic extends beyond local markets. A significant portion of unwanted clothing is shipped abroad, often to countries with limited waste infrastructure, where garments may be sent to landfill or burned without proper controls. Reports from Ghana, Kenya, and other major receiving countries document how bales of low-quality imported clothing clog local markets and overwhelm municipal systems (Tonti, 2024). Parents in mid or high-income contexts rarely see these downstream effects, yet their reliance on convenience contributes to a shared environmental commons that is steadily degraded.

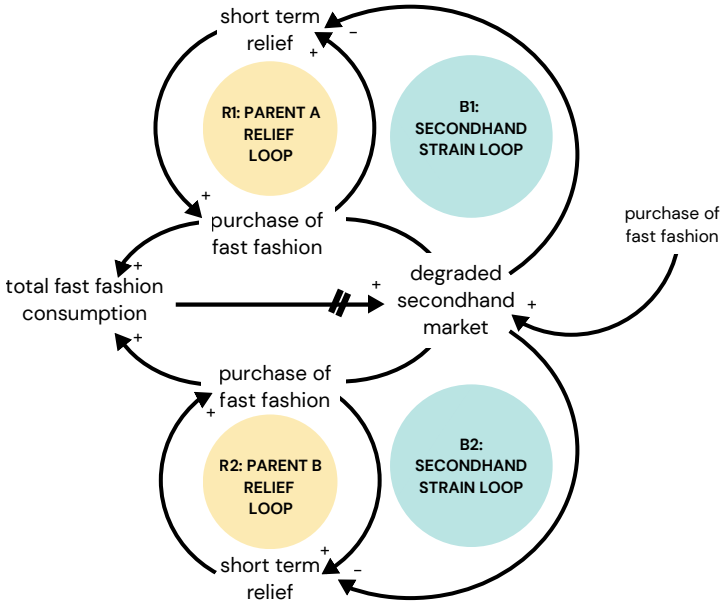


Figure 20: Tragedy of the Commons Archetype: The Convenience Trap

Parent Survey Statistics

- 50% say lack of time limits decisions
- 29% say they feel overwhelmed by options
- 27% care about sustainability but choose the easiest option

Individual intent is consistently overridden by system conditions.

In tragedy-of-the-commons terms, each actor makes a reasonable choice in isolation, but the cumulative impact undermines the very systems everyone depends on. Survey findings suggest that many parents care about sustainability and feel uneasy about overconsumption, yet existing retail structures make it easiest to choose the path that externalizes harm. Addressing this archetype will require shifting default options and governance, so that individual attempts to save time and reduce mental load do not automatically translate into collective environmental costs.

Finding Leverage: Ease of Purchasing Fast Fashion

In this archetype, short-term relief reinforces long-term unsustainable behaviour. In moments of urgency and constraint, fast fashion offers the easiest path, providing immediate resolution with minimal effort. These decisions to prioritize immediate relief are rational responses to an overwhelming and fragmented landscape.

By providing predictable sizing, centralized selection, fast delivery, and low upfront costs, fast fashion removes friction at every step. More sustainable options, by contrast, are often fragmented and effort-intensive, which means searching across platforms, navigating inconsistent sizing, or weighing higher upfront costs. Under pressure, these added demands make sustainable choices less viable, regardless of intent.

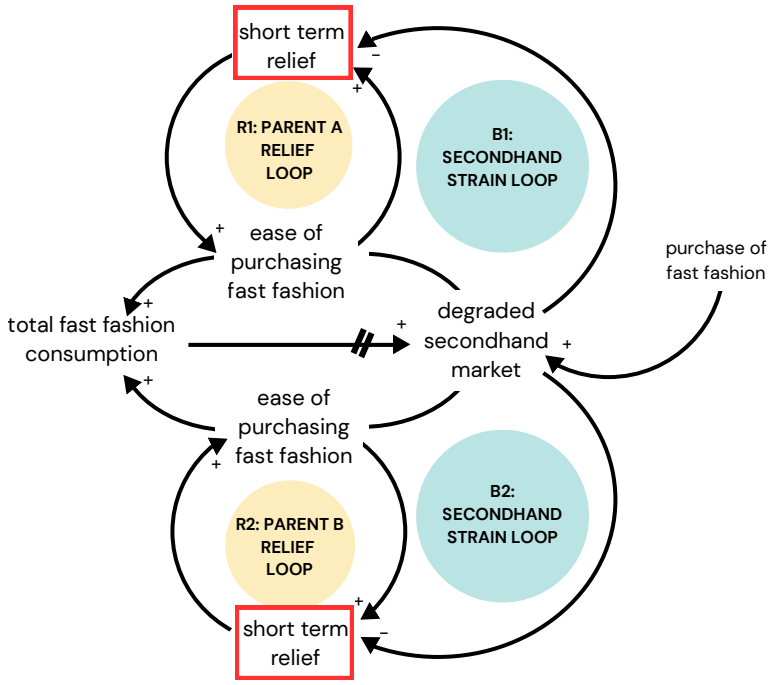


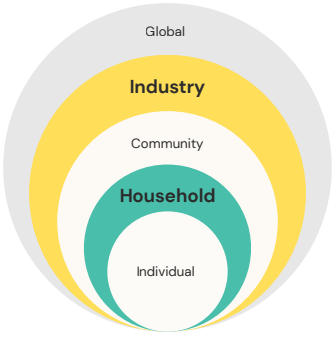
Figure 21: Tragedy of the Commons: The Convenience Trap Leverage Points Highlighted leverage point is: short term relief.

If the ease of purchasing fast fashion is what is driving the industry's success, a key question then becomes how to replicate that success by concentrating choice into a seamless, reliable experience for more sustainable options. Said another way, if the system rewards what is easiest to act on, can we change what is easy to act on?

A key leverage point, therefore, is not only to inform better choices but also to redesign the conditions under which choices are made to create a pathway for short-term relief through more sustainable options. More predictable, aggregated, and time-efficient pathways, where sustainable options are curated, and effort is reduced, can make sustainable choices not just available but realistically competitive with convenience.

Design intervention questions:

- How might sustainable options become as convenient and predictable as fast fashion?
- What decision supports could build trust and reduce perceived risk in circular alternatives?
- How might systems reduce the time pressure and urgency that drive default purchases?



We see this dynamic operating primarily at the **industry** and **household** level influencing drivers and pressure points like: *algorhythmic convenience, budget constraints, desireability of inventory and urgent replacement*

BOTTLENECKS IN CIRCULAR GROWTH

System Archetype: Limits to Growth

Despite the convenience and scale of fast fashion, the secondhand market has grown rapidly over the past decade (Butler, 2024). At first glance, this expansion appears to counterbalance high-volume production, because if more people buy used goods, it follows that overall consumption might decline. Yet growth in resale introduces its own structural constraints.

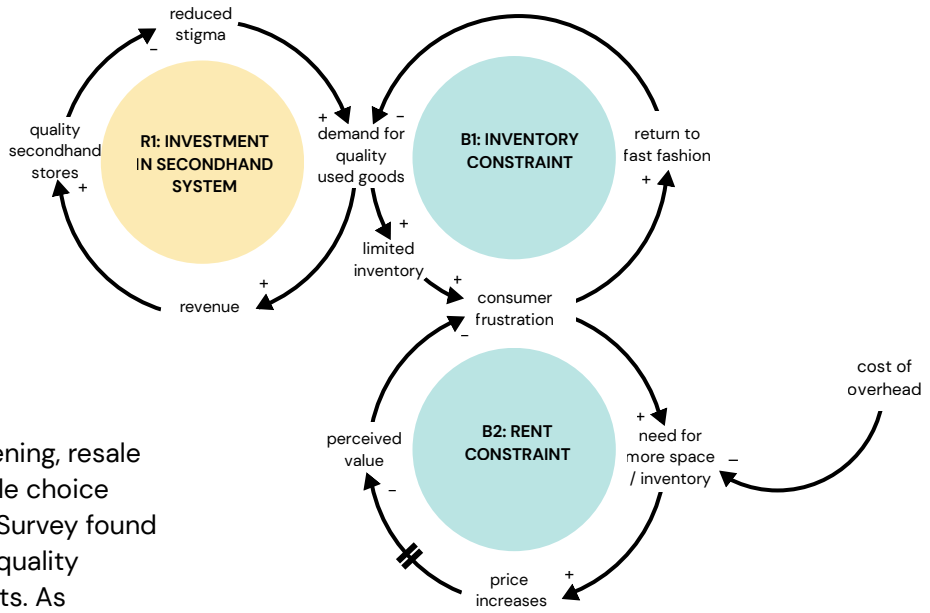


Figure 22: Limits to Growth Archetype: Bottlenecks in Circular Growth

With stigma around secondhand softening, resale is now framed as a savvy or sustainable choice (Stewart, 2025). The Parent Research Survey found that parents choose resale for higher-quality brands or to stretch household budgets. As demand rises, however, local systems often struggle to keep pace. In cities such as Toronto, store owners indicate that when they are already operating near capacity, incoming volumes can overwhelm sorting, storage, and staffing.

As observed in interviews, some secondhand retailers may respond by raising prices or tightening their buying criteria, especially for popular brands in short supply. As costs increase, the cost of buying used approaches the cost of buying new. At this point, parents indicated that the initial advantage that resale offered over fast fashion starts to erode, and parents begin to gravitate back toward more convenient options.

Parent Survey Statistics

- 68% say listing items for resale is too much effort
- 49% say resale is not worth the effort financially
- 55% say lack of time prevents items from being moved on

Friction in offloading prevents circular systems from scaling.

Additional constraints are structural rather than cultural. Urban centres with high rental costs impose limits on how much secondhand inventory can be processed and displayed at any given time, due to constraints on retail square footage. Donation volumes have risen, but processing capacity has not kept pace, leading to backlogs, quality challenges, and increased reliance on exporting surplus stock (Toronto Circular Economy Report - Phase 2, 2025). At the household level, space constraints and storage limits also cap how much can realistically be held for future resale or exchange. These factors together define a ceiling on how far current secondhand systems can scale, even when demand and good intentions are present.

The limits-to-growth archetype highlights that circular systems cannot simply “grow” their way out of the impacts of fast fashion. Without investments in processing capacity, quality control, and coordinated infrastructure, increased enthusiasm for resale may run up against practical bottlenecks. Recognizing these limits does not diminish the value of secondhand markets; instead, it clarifies where interventions are needed if circular pathways are to handle the volume of clothing already in circulation.

Finding Leverage: Cost of Overhead

As discussed in store owner interviews, the reality for many secondhand stores is that they are deeply local, with supply and demand concentrated within their surrounding community.

Physical storefronts are critical not just for transactions, but for trust, discovery, and engagement. However, in urban markets like Toronto, the cost of retail space is prohibitively high. With rents often exceeding $3,500 per month (Realtor.ca), stores are constrained to smaller footprints, limiting both inventory capacity and the ability to offer additional services.

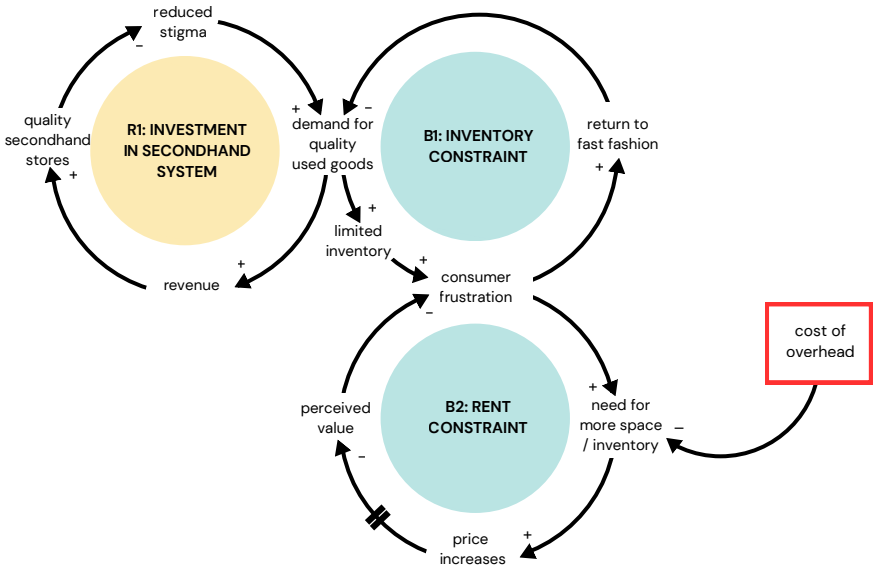


Figure 23: Limits to Growth: Bottlenecks in Circular Growth Leverage Points Highlighted leverage point is: cost of overhead.

Space that could support repair, sorting, or community programming often has to be used to maximize product display in order for stores to generate enough revenue to cover their costs. As the supply of secondhand goods grows, the system lacks the physical capacity to process and circulate them effectively. This suggests that the constraint is not demand, but infrastructure.

If circular systems are to scale, they require access to space beyond traditional retail models. Opportunities lie in unlocking under-utilized spaces, such as vacant storefronts, city-owned properties, or shared facilities, and separating retail from back-end functions like intake, sorting, and storage. In this model, retail becomes one node within a broader network. Shared infrastructure and coordinated logistics can redistribute inventory across locations, expanding capacity without relying on traditional growth models.

Design intervention questions:

- How might shared infrastructure lower the overhead costs of circular systems?
- What new forms of space, logistics, or network coordination could support circular retail?
- How might underused assets, like space, labour, and inventory, be mobilized to support reuse systems?

We see this dynamic operating primarily at the **community** level influencing drivers and pressure points like: *cost of space, permits, storage limits and neighbourhood hubs*

THE CIRCULARITY PARADOX

System Archetype: Fixes That Fail

As the stigma associated with secondhand consumption has declined, resale platforms have expanded rapidly to meet growing demand (Frahm et al., 2025). Digital platforms such as ThredUp and other marketplaces have built sophisticated logistics networks, algorithmically curated shopping interfaces, and app-based customer journeys that make secondhand feel increasingly seamless. On the surface, this appears to strengthen circular alternatives to fast fashion by improving convenience, choice, access, and speed.

However, as their capacity grows, resale platforms must ensure that they do not adopt fast fashion's infrastructure or its underlying logic (Mizrachi & Sharon, 2025; Hellström & Olsson, 2023). High throughput, frequent purchasing, and larger baskets are often encouraged through notifications and promotions, which can expand wardrobes rather than shrink them. Research on moral licensing and rebound effects suggests that "good" purchases can sometimes justify additional consumption rather than replacing it, thereby increasing overall consumption intensity (Mizrachi & Sharon, 2025).

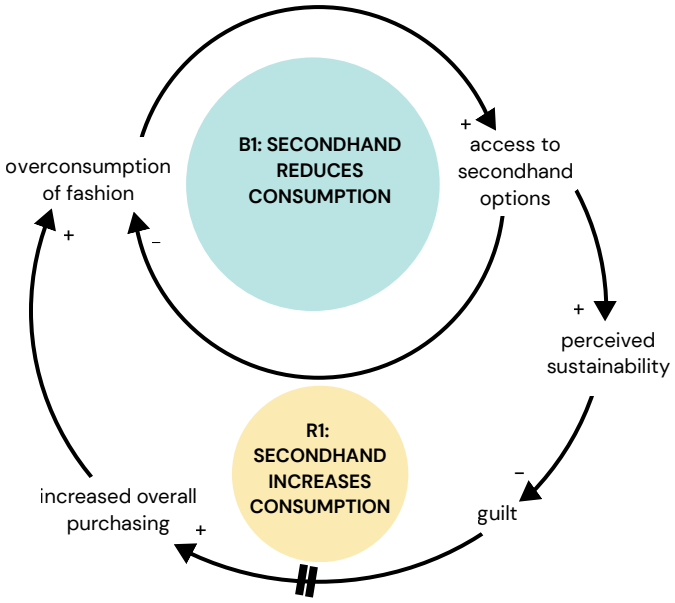


Figure 24: Fixes That Fail: The Circularity Paradox

Parent Survey Statistics

- 50% say managing resale logistics is a barrier
- 43% say researching options is effort-intensive
- 32% say coordinating pickups/drop-offs is difficult

Existing solutions introduce new layers of complexity rather than reducing it.

At the same time, large-scale resale introduces new layers of work for households. Coordinating drop-offs, photographing and listing items, responding to messages, and arranging pickups or shipping all require time and planning. In the Parent Research Survey, 50% of respondents cited managing resale logistics as a barrier, 44% said searching for options is difficult, and many highlighted coordination with strangers as a source of stress. Solutions intended to "close the loop" can therefore shift labour onto families without substantially reducing the volume of new clothing they buy.

In fixes-that-fail terms, expanding resale improves individual options but can leave the underlying dynamics of overproduction and overconsumption largely intact. Without clearer emphasis on replacement rather than addition, and without limits on new production, secondhand growth risks stabilizing fast-fashion patterns instead of transforming them.

Finding Leverage: Abundance of Secondhand Options

In this archetype, we see that resale can unintentionally reinforce acquisition through moral licensing. When buying more is framed as acceptable because items are secondhand, the "better" choice can operate as a corrective to guilt while still enabling overconsumption (Mizrachi & Sharon, 2025). The unintended consequence is that circular solutions begin to mirror the same dynamics of abundance and accumulation they are meant to counter. With at least 30% of items already sitting unused in closets, the question becomes, not how to acquire more sustainable goods, but how to acquire less overall (Iran et al., 2024).

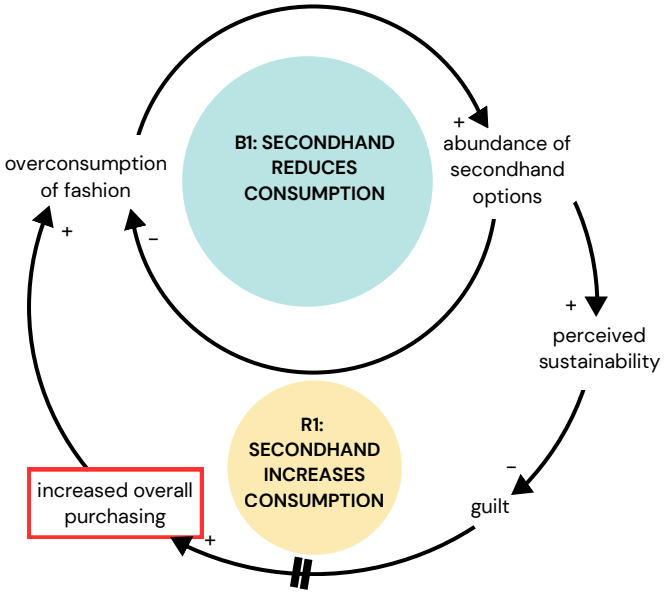


Figure 25: Fixes That Fail: The Circularity Paradox Leverage Points Highlighted leverage point is: increased overall purchasing.

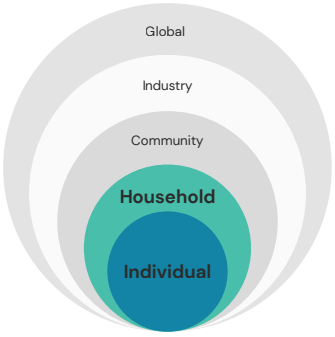
Increased overall purchasing can, in turn, increase the cognitive load. Sorting through large volumes of inventory, assessing quality and fit, and navigating fragmented platforms adds effort, making participation more demanding than many expect. Even highly motivated individuals can feel stuck when every option requires a decision about "how much is enough". This overload can prompt consumers to buy now and decide later (Iran et al., 2024; Centobelli et al., 2022; Weeks & Ruppanner, 2024).

While ideas like minimalism and Marie Kondo's "spark joy" philosophy have received widespread attention, they exist largely as individual practices rather than systemic support for buying less (Iran et al., 2024). Resale environments that continually highlight bargains and novelty can pull attention back toward acquisition, even when people enter with decluttering or budget goals (Olson, 2022).

This reveals that the opportunity is not only structural, but cultural. Moving toward circularity requires rethinking not just how goods are accessed, but how value, ownership, and "enough" are understood, shifting from accumulation toward more intentional, sustained use.

Design intervention questions:

- How might circular systems encourage sufficiency rather than continued accumulation?
- What tools could help households distinguish between needs and wants?
- How might design shift value from acquiring more goods to using fewer goods well?



We see this dynamic operating primarily at the **household** and **individual** level influencing drivers and pressure points like: *sustainability, municipal waste systems, storage overwhelm and accumulation of stuff*

SYSTEM DIAGNOSIS

Where We Go From Here

The system diagnosis reveals recurring constraints that limit how far current circular alternatives can actually displace fast fashion: capacity bottlenecks, cost and infrastructure disadvantages, cognitive and emotional overload, and cultural norms that still reward volume. Rather than existing in isolation, these dynamics cluster into leverage areas where change could ripple across the system. Below is a summary of the system archetypes, diagnosis, leverage points, and considerations of how these leverage points can be addressed.

In the next section on Opportunity Space, we will build on the questions of leverage points to identify areas of opportunity worth exploring further.

From Challenge to Opportunity: System Diagnosis Summary

System Archetype *What recurring problem pattern do we see?*	**Diagnosis** *How is the system currently responding?*	**Leverage Point** *Where is the potential for a strong shift in the system?*	**Reframing** *How can we frame this leverage point as an opportuinty for intervention?*
Limits to Growth	Bottlenecks in Circular Growth	Cost of Overhead	How might we reduce, redistribute or share the costs of overhead across the system?
Success to the Successful	Reinforcing Fast Fashion Dominance	Economies of Scale for Slow Fashion	How might we reorganize scale to support circular and slow fashion systems?
Shifting the Burden	Individualization of Cognitive Work	System Absorption of Cognitive Load	How might the system absorb the cognitive load instead of individuals?
Tragedy of the Commons	The Convenience Trap	Short Term Relief	How might the system provide short term relief through more sustainable options?
Escalation	Relieving Economic Pressure	Perception of Clothing Value	How might the system redefine value to favour more sustainable options?
Fixes that Fail	The Circularity Paradox	Increased Overall Purchasing	How might circular strategies be designed to lower total consumption?

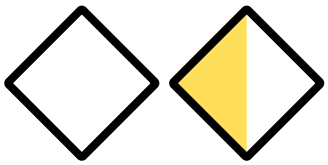
Figure 26: System Diagnosis and Leverage Point Summary

OPPORTUNITY SPACE

Exploring What's Possible

OPPORTUNITY SPACE

Exploring What's Possible



As we explored in the diagnosis, system dynamics like convenience, reward for volume, and infrastructure constraints are influencing decision-making and compounding an already strained cognitive load. When this cognitive load is compounded by additional individual constraints like time pressure and expectations, the resulting dynamics often lead parents to make the easiest, fastest choice, not necessarily the desirable one.

In this section, we will explore what becomes possible if we remove the friction of constraints and infuse qualities like trust, ease and support. To do this, this section will explore:

Opportunity Areas

- Drawing on the system diagnosis and leverage points, opportunity areas indicate where there is the most room to intervene. These areas then guide the market scan toward markets and models that already address similar conditions.

Market Scan & Patterns

- Using these opportunity areas as a lens, the market scan reviews adjacent sectors and markets to surface successful precedents, new participation models, and patterns that can inform future interventions.

Design Goals

- Observing how the opportunity areas appear in practice makes it possible to distill a set of design goals - outcomes that future initiatives should work toward in order to create impact.

Design Principles

- From these goals emerge design principles - specific conditions and qualities that any future intervention should meet in order to achieve impact in the system.

OPPORTUNITY AREAS

Using Opportunity Areas to Explore Market Patterns

Using the system diagnosis and leverage points, opportunity areas translate deep-rooted issues into concrete places to act. They highlight parts of the system where tensions and market patterns show meaningful room for change, and frame where to look for promising precedents of success.

Translating System Leverage Points into Opportunity Areas

Leverage Point *Where is the potential for change?*	**Reframing** *Reframing the leverage point as an opportuinty for intervention*	**Opportunity Area** *Concrete spaces in the system to focus high-impact change*
Cost of Overhead	How might we reduce, redistribute or share the costs of overhead across the system?	**Building Shared Infrastructure:** Supporting the physical and logistical systems required for circulation
Economies of Scale for Slow Fashion	How might we reorganize scale to support circular and slow fashion systems?	**Enabling Scale:** Aligning infrastructure and geography to enable efficient circulation
System Absorption of Cognitive Load	How might the system absorb the cognitive load instead of individuals?	**Reducing Cognitive Load:** Minimizing the effort required to search, evaluate, and decide
Short Term Relief	How might the system provide short term relief through more sustainable options?	**Increasing Convenience:** Designing for ease, speed, and seamless participation
Perception of Clothing Value	How might the system redefine value to favour more sustainable options?	**Restoring Value:** Reframing how value is created, retained, and perceived across multiple ownership cycles
Increased Overall Purchasing	How might circular strategies be designed to lower total consumption?	**Encouraging Sufficiency:** Shifting norms from accumulation toward “enoughness” and longer use

Figure 27: Opportunity Areas Linked to System Diagnoses and Leverage Points

OPPORTUNITY AREAS AS A LENS

How the Diagnosis Guided the Market Scan and Pattern Review

The opportunity areas indicate where there is meaningful room to intervene in the system, but they do not prescribe a single solution. Instead, they serve as lenses for reading adjacent markets, existing circular models, and emerging participation patterns to identify which interventions are already taking shape and where successful past actions have set a precedent for success.

Rather than searching for a single, best “precedent”, the market scan looked at examples that reduce friction, redistribute effort, restore value, or make circular participation more viable at scale. This shifts the question from “what solution should be designed?” to “what system conditions need to exist for circular behaviour to become easier, more reliable, and more desirable?”

Focus of the Scan:

- Offerings that make participation easier, faster, or more intuitive.
- Models that build trust, value retention, or perceived quality over time.
- Infrastructure that coordinates supply, logistics, or redistribution across actors.
- Approaches that shift norms away from accumulation and toward sufficiency, reuse, or stewardship.
- Patterns that pop up repeatedly across different markets and industries show validation and proof of concept.

How To Read The Next Section:

- Each example on its own is not a direct solution, but an indicator of what becomes possible when certain criteria are met and constraints are reduced.
- Because the goal is to identify repeatable mechanisms rather than isolated examples, patterns matter more than individual ideas or brands.
- The scan is organized around the six opportunity areas to show how different models respond to different systemic tensions.

OPPORTUNITY SPACE

MARKET PATTERNS

Learning From How Opportunity Areas Show Up in Practice

Roll-Up Strategy

The model of aggregating many small, independent businesses can create shared back-end services for those businesses that would otherwise have to pay for them on their own. It can also create a more seamless customer experience by establishing a shared, recognized brand that customers can access across different locations. While this strategy is a favourite of private equity partners for the economies of scale and profit to be made, it can also take away from the independent branding and ownership that can be significant to the community.

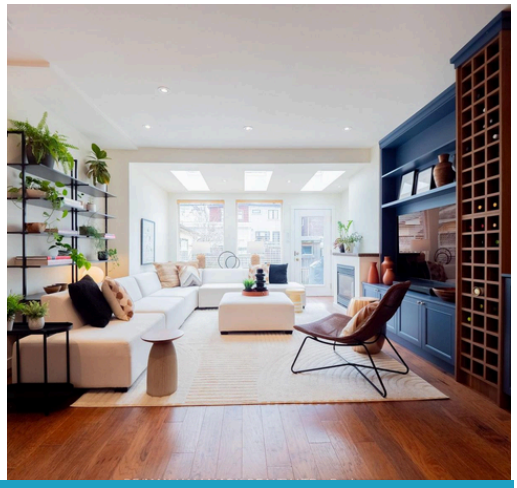
Examples:
Dawson Dental, Juno Vet, Ten Spot Nail Salon

Opportunity Areas:
Enabling Scale, Building Shared Infrastructure

Photo: Juno Vet, Bloor Street West Location

Intentional Merchandising

When it comes to secondhand stores, many have operated under the 'hunt for a treasure' principle, meaning that items are put on the shelves without curation or order. This can be not only visually overwhelming but also reduce the likelihood of purchasing. One parent described "just walking out" if the store felt too cluttered. Organization and curation can ease the mental load, help people envision the item in their future, and make a faster decision. Staged houses for example, spend 73% less time on the market and sell for 5-25% more than un-staged houses (Remax Canada, 2026).



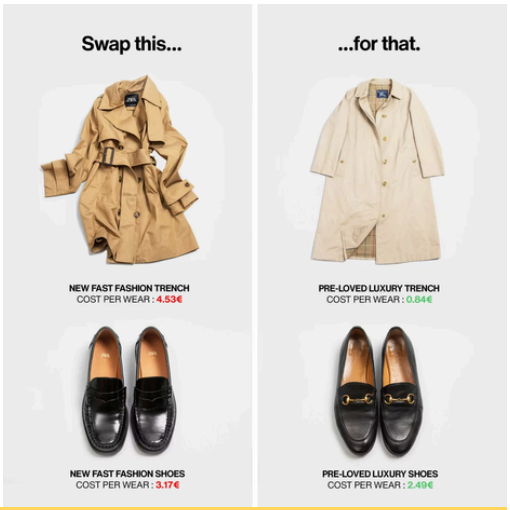
Examples:
Staged Houses, Window Displays, Shelf Curation

Opportunity Areas:
Restoring Value, Reducing Cognitive Labour

Photo: Re/max Hallmark Realty Ltd., Brokerage, 55 Galt Ave.

Decision Making Support

Choice architecture, nudging, and decision design all point to a similar issue: making decisions is hard. If you don't have enough information, you feel like you can't make a good decision. If you have too much information, you may feel analysis paralysis and not make any decision at all. Many companies have solved this by aggregating data to display metrics that capture the most pertinent information. In some cases - like Cost Per Wear (CPW) - an algorithm is used to calculate data into one metric that works as a strong apples-to-apples comparison (Eckmann & Reisch, 2025).



Examples:
Cost Per Wear, House Sigma, Yuka Nutition App

Opportunity Areas:
Reducing Cognitive Labour, Encouraging Sufficiency

Photo: Vestiare Collective 'Cost Per Wear' Campaign

De-Risked Ownership

Making a purchase can be challenging when it means taking on risk. But de-risking can take that feeling out of the decision. For example, de-risking can make it easier for people to choose a single higher-end item instead of several cheaper ones by reducing the fear of making the "wrong" purchase. When a company guarantees buy-back or store credit, shoppers know they can recover some value if the product does not work out. This safety net can justify spending more upfront on quality, durability, or brand alignment, because the purchase feels reversible rather than final.

Examples:
Car Leases, IKEA Sell-Back Program, Patagonia Worn Wear

Opportunity Areas:
Restoring Value, Encouraging Sufficiency

Photo: Patagonia, 'Worn Wear' Film Still Image

Access Over Ownership

Another way to de-risk consumption is to remove ownership altogether. Access models, such as Rent the Runway, make it possible to use high-quality items without the upfront cost or long-term burden of owning them. While this model is intuitive for expensive or occasional-use items, its application to everyday goods runs up against deeply held cultural norms around ownership, where buying is still seen as the default, even when access may be more practical or sustainable. Access over ownership requires not just economic logic, but a shift in values toward sufficiency and reduced accumulation.

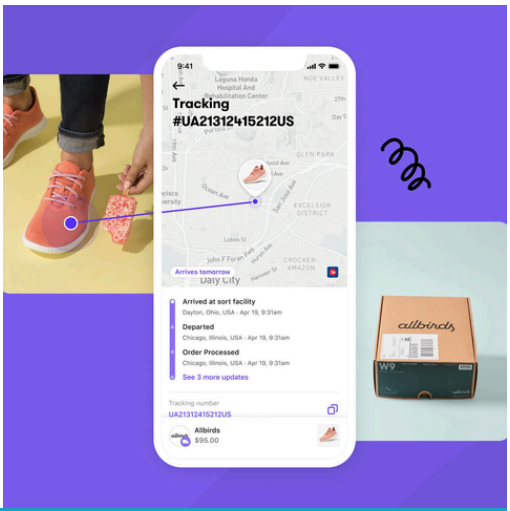
Examples:
Tool Library, Rent the Runway, Zipcar

Opportunity Areas:
Enabling Scale, Encouraging Sufficiency

Photo: Fitzroy Rentals, Zendaya Gown by Lexi

Transparency

Digital user experience design has reshaped not only how people interact with services, but what they expect from them. Real-time platforms like Uber have normalized transparency, making features such as live tracking and status updates a baseline rather than a differentiator. What was once a competitive advantage - like free Wi-Fi in hotels - is now an expected standard. For parents managing time-sensitive needs, visibility into an item's location and when it will arrive can be a decisive factor in where they choose to shop.



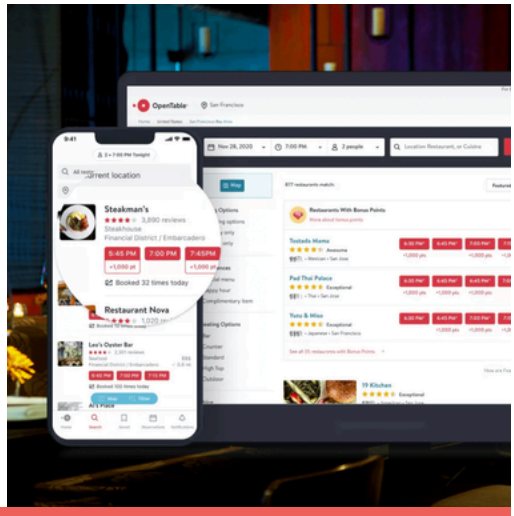
Examples:
Uber Rides, Shop App, Dominos

Opportunity Areas:
Reducing Cognitive Load, Building Shared Infrastructure

Photo: Shop App, Digital Assitant Map, Shopify

Market Aggregation

Navigating fragmented options can be time-consuming and cognitively demanding, often leading users to default to familiar choices. Aggregated marketplaces reduce this burden by bringing dispersed supply into a single interface, making it easier to search, compare, and decide. Platforms like OpenTable consolidate availability across providers, significantly reducing the effort required to find and book options. Typically organized by category (e.g., food delivery, home services), these platforms can be filtered by factors such as location, availability, and price, streamlining decision-making.



Examples:
Uber Eats, Jiffy, Open Table

Opportunity Areas:
Increasing Convenience, Reducing Cognitive Load

Photo: Brand to Table, Open Table Pro Marketing Tools

Choice Streamlining

An abundance of choice can lead to decision paralysis, where too many options make it harder to act. When choice becomes too overwhelming, it can stall decision-making altogether. Some companies address this by intentionally narrowing choice sets. For example, Endy gained market share by offering a single mattress model, varying only by size, in order to reduce decision complexity. Simliarly, Lovevery curates age-based toy kits delivered on a subscription basis to reduce decision fatigue. In both cases, choice is streamlined through curation, helping users move more easily from consideration to decision.

Examples:
Endy, Warby Parker, Loveevery

Opportunity Areas:
Reducing Cognitive Load, Encouraging Sufficiency

Photo: Lovevery, The Adventurer Toy Kit

DESIGN GOALS

What Outcomes Should Design Interventions Deliver?

Seeing how these opportunity areas show up in practice offers a concrete picture of what 'good' looks like. This includes reduced friction, stronger trust, and easier participation - conditions that are key for building effective circular systems. These precedents also validate the direction of the design interventions, allowing the opportunity areas to be distilled into a set of design goals that define clear conditions for success.

Translating Opportunity Areas into Design Goals

Leverage Point *Where is the potential for change?*	**Reframing** *Reframing the leverage point as an opportuinty for intervention*	**Opportunity Area** *Concrete spaces in the system to focus high-impact change*	**Design Goals**
Cost of Overhead	How might we reduce, redistribute or share the costs of overhead across the system?	Building Shared Infrastructure: Supporting the physical and logistical systems required for circulation	**Reduce Fragmentation: Make the System Coherent and Connected** *Through shared infrastructure and systems that enable scale*
Economies of Scale for Slow Fashion	How might we reorganize scale to support circular and slow fashion systems?	Enabling Scale: Aligning infrastructure and geography to enable efficient circulation	
System Absorption of Cognitive Load	How might the system absorb the cognitive load instead of individuals?	Reducing Cognitive Load: Minimizing the effort required to search, evaluate, and decide	**Enable Participation: Make Circular Systems Easy to Use** *By reducing cognitive load and increasing convenience*
Short Term Relief	How might the system provide short term relief through more sustainable options?	Increasing Convenience: Designing for ease, speed, and seamless participation	
Perception of Clothing Value	How might the system redefine value to favour more sustainable options?	Restoring Value: Reframing how value is created, retained, and perceived across multiple ownership cycles	**Align Value with Reuse: Make Reuse Worthwhile and Desirable** *By restoring value and making durable, reused goods feel like the best choice*
Increased Overall Purchasing	How might circular strategies be designed to lower total consumption?	Encouraging Sufficiency: Shifting norms from accumulation toward "enoughness" and longer use	

Figure 28: Design Goals Linked to Leverage Points, and Opportunity Areas

OPPORTUNITY SPACE

DESIGN PRINCIPLES

What Conditions Should Design Interventions Meet?

With clear goals for what the design interventions should achieve, a set of design principles was developed that specify how they should work in practice. The design principles were developed iteratively by cycling between interview and literature data, opportunity space examples, and sticky-note clustering, to distill recurring themes into a concise set of conditions. The principles serve as a checklist for design decisions, ensuring that interventions consistently reduce friction, redefine value, and make circular participation feel both possible and desirable.

Design Principles:

INTEGRATION & COORDINATION
Systems should reduce fragmentation by connecting supply, services, and information

EFFORT REDUCTION
Interactions should minimize time, steps, and cognitive burden required to participate

CHOICE SIMPLIFICATION
Options should be curated and structured to support clear, confident decision-making

RISK REDUCTION
Systems should reduce financial, functional, and psychological uncertainty

DECISION SUPPORT
Users should be supported with clear information, defaults, and guidance

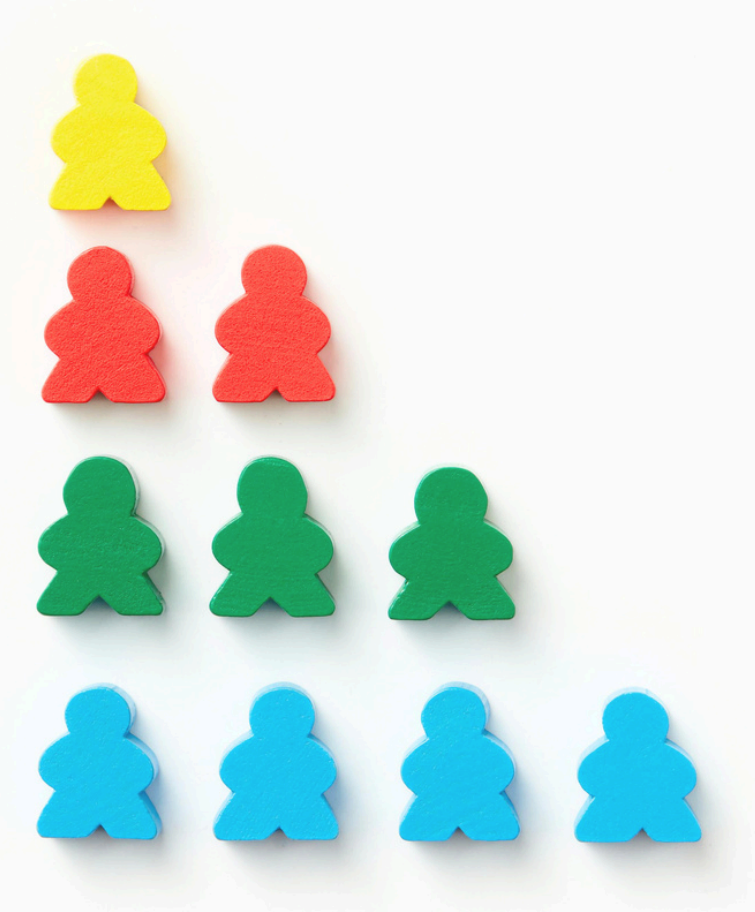
TRANSPARENCY & TRUST
Information about quality, availability, and outcomes should be visible and reliable

ACCESS FLEXIBILITY
Users should be able to engage in multiple ways (buy, trade, donate) with minimal friction

CURATION
Supply should be filtered, organized, and presented in ways that reduce overwhelm

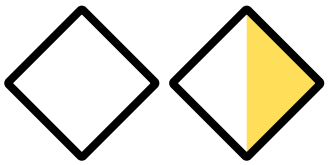
DESIGN INTERVENTIONS

How the System Can Be Redesigned



DESIGN INTERVENTIONS

How the System Can Be Redesigned



With clear design goals and principles in hand, design interventions can now be explored to address the frictions noted in the diagnosis. Using Donella Meadows Leverage Points framework, the interventions aim to address high-impact areas that can definitively move the system forward.

This section outlines how this framework has been used in this research and examines three intervention areas to better align systems with real-world needs.

Donella Meadows Leverage Points

- This framework provides a structure for designing high-impact interventions. This, in turn, guides the examination of three key intervention areas.

Intervention Area #1: Infrastructure

- This intervention examines how to build circular infrastructure at the most effective scale.

Intervention Area #2: Market Design

- This intervention examines how to build circular systems that people actually want to use.

Intervention Area #3: Culture Shift

- This intervention examines the nudges that can be designed to move to a culture of sufficieny over aquisition.

LEVERAGE POINTS

Where Design Interventions Can Have the Greatest Impact

Leverage points are places in a system where a small change can produce a big shift in how the whole system behaves, like adjusting a single gear that redirects the whole machine. Drawing on Donella Meadows' framework, this report groups the findings into five types of leverage - actions, behaviour, structure, strategy, and paradigm - ranging from more surface-level tweaks to deep shifts in underlying rules and mindsets. The diagram below shows where the proposed intervention areas sit on this spectrum and highlights that the design work in this project focuses on the higher-impact end: structure, strategy, and paradigm.

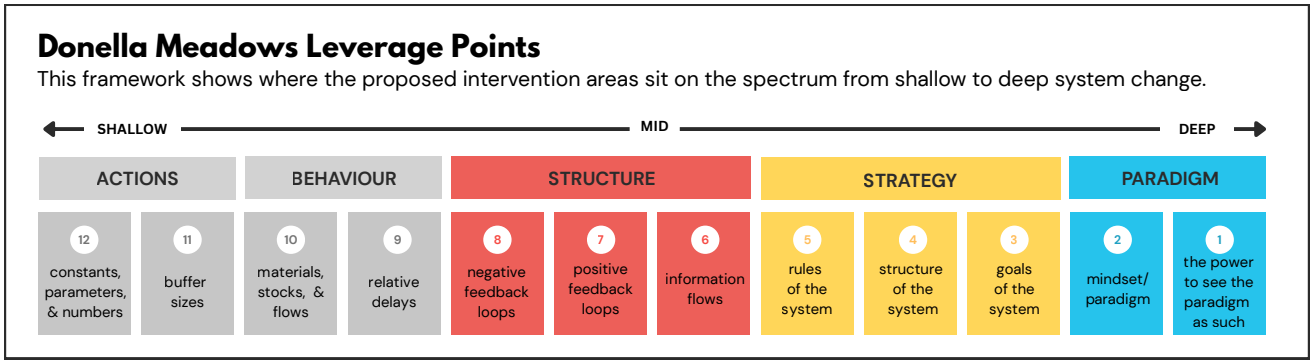
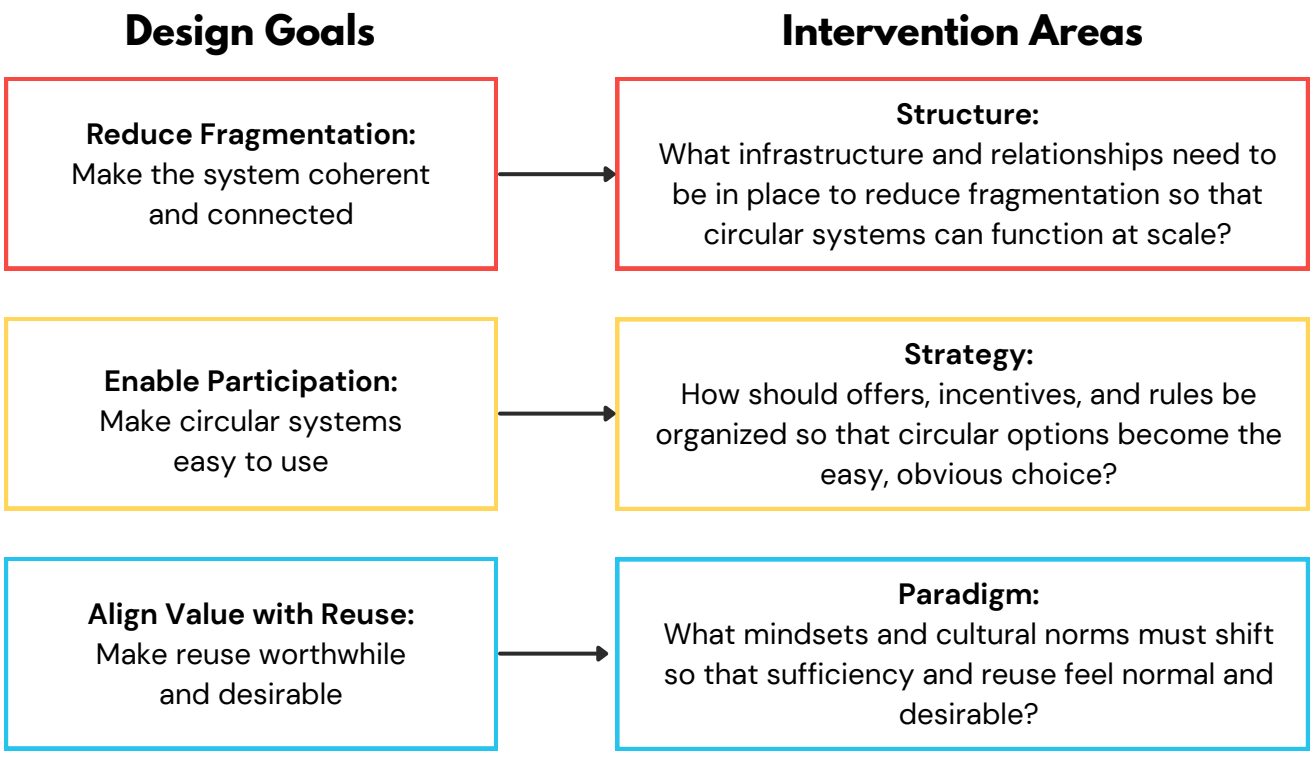


Figure 29: Donella Meadows' Leverage Points Framework



While they do not capture every possible leverage point, these areas sit at meaningful positions on the Meadows scale and align closely with the design goals, making them promising places to concentrate intervention.

DESIGN INTERVENTIONS OVERVIEW

Where Design Interventions Can Have The Greatest Impact

Designing effective interventions requires working at multiple layers of the system at once. The following section focuses on three interconnected areas where change can reshape how children's goods circulate in order to absorb complexity and make sustainable pathways easier and more reliable:

- **Infrastructure** sets the *capacity* of the system (how much, how fast, where things can move)
- **Market design** shapes the *choices* that show up at the point of use (what feels easy, fair, and worth it)
- **Cultural norms** stabilize the *stories* people tell about value, sufficiency, and what is "normal"

Rather than develop these as separate initiatives, they are framed as overlapping lenses on the same system, each highlighting different conditions that must shift for circular options to become workable, attractive, and enduring in everyday life. As we move into the Imagining Futures section later in the report, we'll see how these initiatives come together. But first, let's break down each component and what this looks like in detail:

Infrastructure: Enabling Circular Scale

The diagnosis in 'Limits to Growth' and 'Success to the Successful' surfaced bottlenecks in circular growth, coordination burdens, and high overhead as structural barriers. Addressing these requires shared, regional infrastructure: logistics networks that can support multidirectional flows, marketplaces that aggregate dispersed inventory, and physical spaces where repair, resale, and return are integrated into everyday routines. At this level, design shapes the underlying systems of spatial arrangements, platforms, and protocols that make circular activity operationally possible.

Market Design: Enabling Circular Systems

Even when the infrastructure exists, it's not a given that people will use it. The diagnosis in 'Shifting the Burden' and 'Tragedy of the Commons' shows that convenience gaps and cognitive load dynamics reinforce how fast fashion currently outperforms circular options in terms of effort, risk, and ease of decision. Market design works on business models, interfaces, and service configurations to reduce friction, support decision-making, and redistribute risk so that circular options feel not only available, but viable and attractive.

Cultural Shift: Encouraging Sufficiency Over Acquisition

Finally, several feedback loops in the diagnosis of 'Fixes that Fail' and 'Escalation' point to a consumption culture that equates value with newness, speed, and volume. Infrastructure and markets can make sufficiency possible, but cultural norms determine whether "enough" is adopted into consciousness. Design interventions at this layer engage value perception, social cues, and shared stories to normalize repair, repetition, and reduced throughput as desirable, rather than merely necessary.

DESIGN INTERVENTION #1

INFRASTRUCTURE

Enabling Circular Scale

Circular systems depend not only on individual behaviours, but on the conditions that make those behaviours possible. In the current landscape, secondhand and reuse pathways remain highly fragmented and distributed across platforms, locations, and informal networks. As a result, participation requires significant coordination to search across multiple channels, manage logistics, and navigate inconsistent availability.

These challenges are not simply matters of user experience, but of infrastructure. While linear retail systems have developed highly integrated supply chains by coordinating production, distribution, and inventory at scale, circular systems often rely on decentralized, loosely connected flows of goods, managed by individual retailers. This limits the ability to match supply and demand efficiently, and shifts the burden of coordination onto individuals.

In this context, scale is not only a question of size, but of alignment. Enabling circular participation requires infrastructure that can aggregate supply, coordinate logistics, and stabilize access across time and place. This includes both physical infrastructure and shared systems for inventory management, distribution, and exchange.

Without these conditions, circular options remain effortful and inconsistent. With them, they become viable alternatives within everyday routines. This means that two dimensions are especially important:

- **Geographic scale:** the distance between goods and users
- **Throughput scale:** the volume and speed at which goods circulate

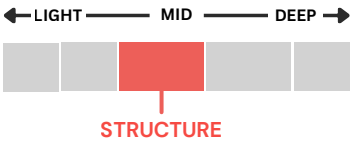
Both must be calibrated together if circular infrastructure is to work effectively to ensure that systems operate at the right geographic radius, share back-end capacity across local nodes, and embed circular flows within neighbourhood-scale networks rather than distant warehouses.

SYSTEM LEVEL

where the intervention primarily operates

LEVEL OF DEPTH

how deeply it shifts the system, using a high-level rubric of Donella Meadows Leverage Points



DESIGN PRINCIPLES

conditions guiding the intervention


Integration & Coordination

Effort Reduction


Risk Reduction


Access Flexibility

Reframing Scale: A Relational Approach

Emerging research on the circular economy highlights the regional (meso) scale as a critical level of implementation. The Regional and Circular Ecological Sphere (R-CES), developed by the Government of Japan, offers a useful framework for rethinking scale in this context, arguing that resource flows should be calibrated to material characteristics and to the places where people actually live and work (ICLEI, 2020; Tsui, 2023; Ruiz et al., 2025).

This means that the type of material and the population density where the goods are circulating become central to determining the right scale. For example, durable goods like steel should circulate at a larger radius so that manufacturing and repair capacity can be fully supported, while degradable goods or items that spoil quickly should move in more localized loops (ICLEI, 2020). Applied to textiles - and particularly children's goods - this suggests that effective circulation may occur within relatively local geographies where both supply and demand are abundant and recurrent, especially in dense populations.

This perspective aligns with literature that emphasizes: geographic proximity reducing transaction costs; regional scale making services and shared infrastructure more efficient; and circular strategies working best when embedded within regional planning and public investment (Ruiz et al., 2025). Although this theory is emergent and underdeveloped, it offers a clear rationale of why global circular flows, like the ThredUp model, may become less effective the larger their radius becomes, and how to design for a viable alternative.

Figure 30. Neighbourhood-Level Heat Map of Circular Clothing Activity. Mock-up of a community-scale heat map, showing multiple neighbourhood nodes and their approximate geographic radius of circulation areas for children's goods in a high-density, urban area.

Enabling Circular Scale Alignment

The insights on circular scale alignment suggest that circular scale requires:

- Right-sizing geographic reach based on product characteristics and demand density
- Distributing infrastructure across regional nodes rather than centralizing operations
- Coordinating flows across networks to balance supply and demand
- Aligning throughput with value, avoiding high-volume, low-margin inefficiencies

For households, this shift has beneficial implications where access to circular systems becomes faster, more predictable, and less effort-intensive when infrastructure is embedded within the community rather than distributed across distant, fragmented platforms.

Operationalizing Circular Scale: Structural Conditions

To move from concept to implementation, the circular scale requires not only appropriate geographic calibration, but also supporting physical and institutional structures that enable circulation to occur efficiently. Ideally, this would include:

Shared infrastructure systems

Shared inventory and backend systems can reduce duplication and enable more efficient circulation. For example, enabling multiple stores to draw from a common pool of goods.

Distributed physical nodes and networked spaces

Infrastructure can be organized as a network of localized nodes, similar to a library system, where each node serves a community but is connected to a broader network.

Utilization of underused urban space

Circular infrastructure can leverage underutilized assets, including vacant storefronts, underused commercial spaces, and civic buildings, especially in municipalities where these assets remain idle.

Shared facilities and production capacity

Infrastructure may include shared facilities for repair, refurbishment, or localized production, allowing goods to be processed within the same system in which they circulate, reducing reliance on long-distance logistics.

Financial and policy supports

Given the thin margins of circular systems, supports such as rent subsidies, cooperative leasing, and shared tenancy can reduce fixed costs.

DESIGN INTERVENTION #2

MARKET DESIGN

Enabling Circular Systems

While infrastructure determines what is possible, market design determines what is usable and how people experience it. Existing research on circular consumption has largely focused on consumer attitudes, awareness, and purchase intention, with less attention given to how decisions are made under real-world conditions and constraints (Vidal-Ayuso et al., 2023). Circular systems often underperform not because supply is absent, but because the effort required to navigate it makes participation feel burdensome.

In households already operating under high cognitive load, this effort reduction is a condition for participation. Drawing on insights from interviews and the Parent Research Survey, this section explores how market design can better align with the realities of decision-making by focusing on three conditions for participation: reducing cognitive load, reducing perceived risk, and enabling effortless curation.

Designing for Reduced Cognitive Load

In circular systems, the work of finding, comparing, and evaluating options can quickly outweigh the perceived benefit. When decisions feel too demanding, people default to faster, more familiar options, even when better alternatives exist. Reducing this effort is central to participation. This includes:

- Structuring choice sets to support decision-making
- Curating and filtering inventory
- Providing clear defaults and recommendations

Designing for Reduced Risk

Uncertainty around quality, fit, and returns introduces additional friction, particularly in secondhand environments where standards are inconsistent. This uncertainty increases the likelihood of poor outcomes, making users less willing to engage, even when abundant options are available. Reducing this risk is critical to making circular options viable. This includes:

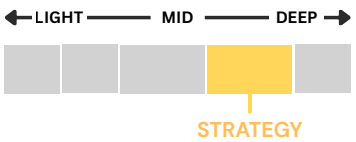
- Standardizing condition and sizing
- Providing guarantees or flexible return pathways
- Building trust through consistent signals

SYSTEM LEVEL

where the intervention primarily operates

LEVEL OF DEPTH

how deeply it shifts the system, using a high-level rubric of Donella Meadows Leverage Points



DESIGN PRINCIPLES

conditions guiding the intervention

- Effort Reduction
- Choice Simplification
- Risk Reduction
- Decision Support
- Trust & Transparency
- Access Flexibility

Designing for Effortless Circulation

Circular participation also depends on returning goods to the system, a process that is often more fragmented and effortful than acquiring them. When offloading requires significant time, coordination, or uncertainty, goods remain unused or are removed from circulation entirely. Reducing this burden is essential to maintaining flow. This includes:

- Minimizing effort to list, return, or donate items
- Absorbing logistics and coordination
- Providing clear, predictable pathways for offloading
- Incentivizing users to bring goods back into the system

Operationalizing Market Design: Structural Conditions

While the above conditions define the core requirements for participation, they must be translated into how circular systems are experienced in practice. Designing systems that absorb complexity, guide decision-making, and reduce effort would ideally include:

Convenience as a competitive condition

- Same-day delivery and pickup models
- Coordinated neighbourhood-level logistics that aggregate multiple sources into a single flow
- Localized marketplace experiences that function as a circular alternative to one-click retail

Aggregation and interface design

- Platforms that consolidate fragmented supply into a single access point
- Systematized discovery across multiple sellers or nodes
- Reduced search costs through curation and filtering

Risk reduction and decision support mechanisms

- Standardized sizing, condition grading, and quality benchmarks
- Transparent pricing frameworks (e.g. cost-per-wear)
- Flexible returns, guarantees, and quality assurance
- Managed logistics that remove the burden of coordination from users

Leverage technology and AI

- Personalized discovery and matching
- Smart aggregation
- Predictive logistics and coordination

For circular systems to compete, participation must feel straightforward, low-risk, and easy to repeat within everyday routines.

DESIGN INTERVENTION #3

CULTURAL SHIFT

Encouraging Sufficiency

Building infrastructure and redesigning markets are critical components to developing successful circular systems, but ultimately, their adoption depends on social and cultural alignment. Research on circular transitions highlights that shifts in production and consumption systems are driven not only by technical solutions but also by the interactions among infrastructure, institutions, and cultural norms that shape everyday practices (Iran et al., 2024).

Pressure for this change can come from multiple directions, including government shifts in policy, public demand on brands to do better, or brands recognizing a strategic opportunity. As brands begin to recognize that long-term viability depends less on driving volume at any cost and more on building durable, value-rich relationships with their customers through fewer, better products, an immense opportunity to reframe our understanding of ownership norms emerges (Jain et al., 2021). This section explores how shifting cultural norms around ownership, value, and 'enough' can reinforce that transition.

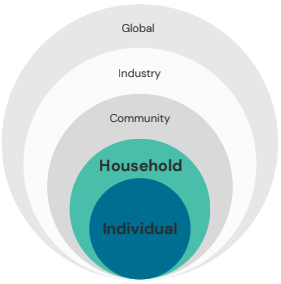
Reframing Value

Within a linear "take–make–waste" consumption model, value is concentrated at the point of purchase. Price competition becomes the primary mechanism for driving demand, often at the expense of quality and durability (Jain et al., 2021).

However, emerging research suggests that this model is not only wasteful but also economically inefficient. A recent study found that approximately 66% of apparel brands do not engage in value-maximizing activities for used clothing, resulting in significant unrealized value across the product lifecycle (Jain et al., 2021). In contrast, modelling of closed-loop systems indicates that well-designed circular models can extend garment lifetimes by 60–80% and reduce demand for virgin textile fibres by 80–88%, while maintaining or even improving overall profit margins (Jain et al., 2021). Recent industry data also reflects that nearly 80% of business leaders identify circularity as important or very important to their organizations, a figure projected to rise to 95% within three years (World Economic Forum, 2026).

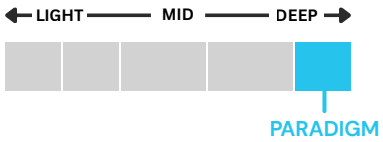
SYSTEM LEVEL

where the intervention primarily operates



LEVEL OF DEPTH

how deeply it shifts the system, using a high-level rubric of Donella Meadows Leverage Points



DESIGN PRINCIPLES

conditions guiding the intervention

- Effort Reduction
- Choice Simplification
- Decision Support
- Curation

These findings signal a shift in how circularity is understood, not solely as an environmental imperative but also as a strategic economic opportunity. This can include:

- Shifts in how products are designed for long-term durability, modularity, and multiple owners
- Designing service structures like leases and take-backs intentionally for multiple owners
- Normalizing value metrics like 'Cost Per Wear' (CPW) to reframe decisions around value over time rather than upfront price, making durable, higher-quality garments more attractive

Culture of "Enough"

Reframing value also means reconsidering what constitutes "enough." Norms around status, identity, and care strongly shape how families acquire, use, and pass on children's goods. A culture and identity of enough redirects aspiration toward longevity, flexibility, and shared access. This can include:

- Emphasizing total lifetime use, not purchase frequency
- Valuing repair, alteration, and circular services as desirable and convenient
- Normalizing secondhand and shared use as default options, not exceptions
- Positioning caregivers and children as careful stewards, not just consumers
- Making circular actions visible and easy to talk about, so they become part of everyday stories, rituals, and identities rather than occasional good deeds

Operationalizing Cultural Shifts: Encouraging Sufficiency

Enabling this cultural shift requires supportive conditions across brands, policy, and public institutions. Ideally, this would include:

Business Model Redesign

- Brands develop business models that reward retention, repair, and circular services alongside new sales

Policy Shifts

- Policies that reinforce sufficiency over volume, e.g., EPR (extended producer responsibilities), requirements on longevity and lifespan, 'Right to Repair' policies for all consumer goods

Public Campaigns

- Public campaigns and partnerships that normalize circular habits and reduce stigma around secondhand and sharing, for example, giving secondhand items as gifts

Measurement Frameworks

- Measurement frameworks that track sufficiency indicators, like wears and reuse and avoided purchases, alongside conventional sales metrics

DESIGN INTERVENTIONS

Enabling Scale, Participation and Sufficiency

Ultimately, the goal is not only to enable circular consumption but to make it intuitive, valued, and culturally reinforced. If infrastructure enables circulation and market design enables participation, cultural norms determine whether reduced consumption is accepted and sustained. Without a shift toward sufficiency, circular systems risk reinforcing the same patterns of continuous acquisition they seek to transform (Centobelli et al., 2022; Iran et al., 2024).

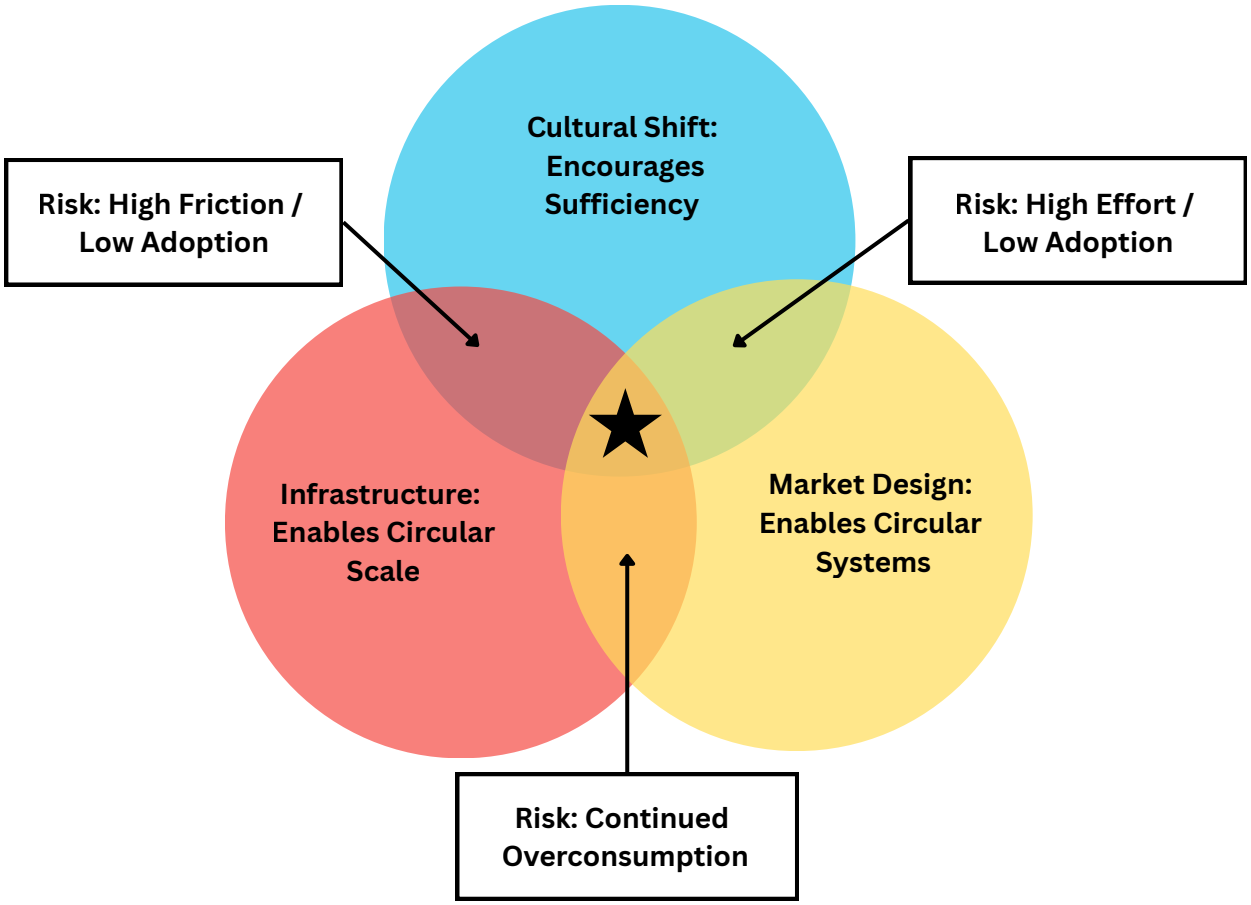


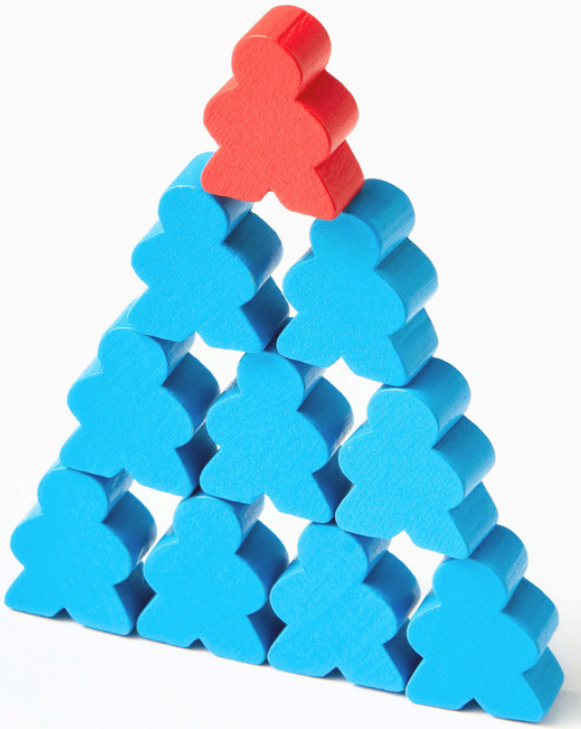
Figure 31. Relationship Map of Intervention Areas. Venn diagram with three overlapping circles of infrastructure, market design, and cultural shift, showing how each enables circularity and how gaps between any two areas create risks such as high friction, high effort, and continued overconsumption.

★ The overlap between the strategic conditions that enable infrastructure, market design, and cultural shifts is the ideal mix of components to create an optimal circular system that absorbs the burden of complexity from parents to systems, making sustainable pathways easier, faster, and more reliable.

In the next section, we will combine these individual design interventions into three horizons to imagine what alternate futures could look like.

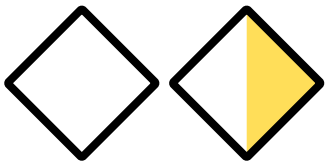
IMAGINING FUTURES

Exploring Alternative Pathways



IMAGINING FUTURES

Exploring Alternative Pathways



Having explored three high-impact opportunities for design intervention, this section looks ahead to how those interventions can reshape system conditions over time and what would be required to enable lasting transformation. It builds on the proposed interventions in infrastructure, market design, and cultural shifts toward sufficiency, showing how principles such as effort reduction, decision support, access flexibility, and appropriate scale can work together to realize our proposed design goals.

Three Horizons

- This section introduces an adapted version of the Three Horizons framework as a way of offering a portfolio of possibilities from improving the current state to transforming the future state into our desired future.

Future 1: Improving the Current State

- Using foresight techniques, this future imagines how we can improve the current state system of managing children's goods and what this would look and feel like for parents.

Future 2: Expanding the Current State

- Building on the vision of Future 1, this future pushes further to envision how we might expand beyond current-state improvements to build a new network that supports circularity.

Future 3: Transforming the Future

- Looking far into the future, we envision how systems can be transformed from a mindset of acquisition and consumption to a world without ownership.

THREE HORIZONS MODEL (ADAPTED)

Linking Today's System to Future Possibilities

This framework builds on McKinsey's Three Horizons of Growth, which distinguishes between today's core business, emerging opportunities, and future transformation, and draws conceptually on Sharpe's futures-oriented use of the model. Unlike Sharpe's intersecting-lines version of the Three Horizons, this model depicts the horizons as three zones rather than precise trajectories, emphasizing their use as lenses for design rather than as a predictive graph. More like the McKinsey model, the horizons are reinterpreted as an innovation spectrum emphasizing the type of change across systems, rather than a single business portfolio. This adaptation distinguishes between incremental changes in today's dominant patterns (Horizon 1), emerging alternatives that challenge them (Horizon 2), and long-term paradigm shifts (Horizon 3). It shows how near-term innovations can improve the current system and open pathways toward more transformative change, rather than treating these futures as separate or competing options.

Horizon 1: CORE - Incremental Innovation of Current State

- This future represents the dominant patterns of today, but asks: How can we improve today's current state?

Horizon 2: EMERGING - New Innovation of Current State

- This future explores emerging alternatives to today's dominant patterns by asking: How can we expand the current reality to create new ways of doing and being in the near future?

Horizon 3: TRANSFORMATIONAL - Disruptive Innovation of Future State

- This future explores the emergence of deep-seated paradigm shifts by asking: How can we transform the future to create a new reality?

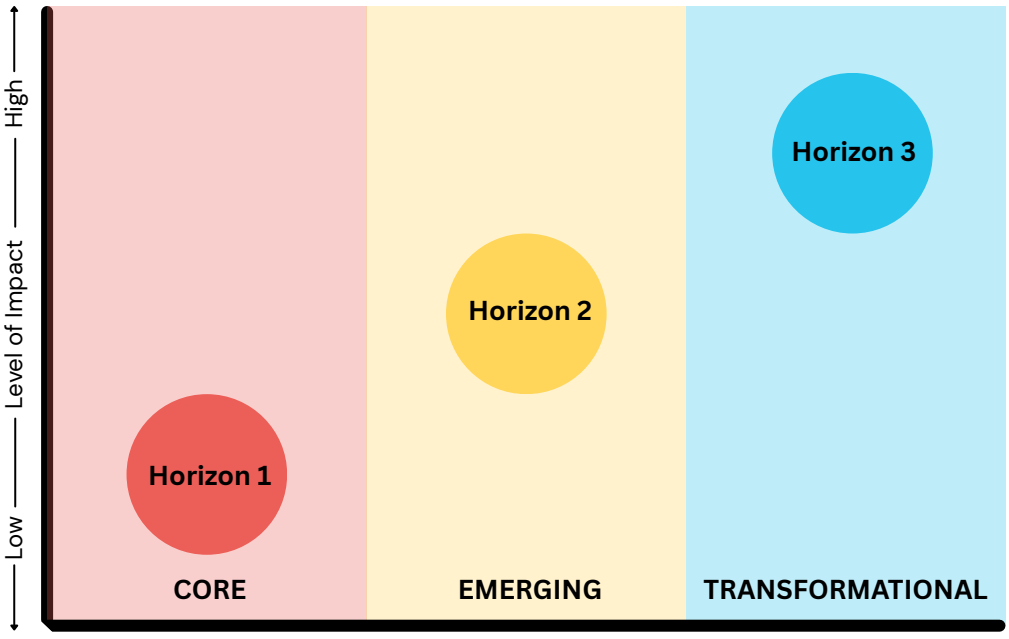


Figure 32. Adapted Three Horizons Framework. Mapping Horizon 1, 2, and 3 onto a continuum from today's core patterns to emerging alternatives to transformational futures.

THREE HORIZONS MODEL (ADAPTED)

Linking Today's System to Future Possibilities

An overview fo the three horizons that will be explored in this section:

Horizon 1: CORE - Improving the Current State

Horizon 1 represents "business as usual," where the current resale-oriented market remains dominant but can be incrementally improved. In this future, platforms aggregate secondhand supply, alongside sustainable new items, to reduce cognitive overload for parents and offer more convenient access, similar to a "Uber Eats" model of better-designed resale. Innovation here is primarily core: refining existing value propositions, interfaces, and logistics without altering the underlying economic logic of linear consumption.

Horizon 2: EMERGING - Expanding the Current State

Horizon 2 captures the "near future" where emerging practices start to scale and reshape the system. Future 2 builds on improvements from Horizon 1 but layers in systemic circularity and public infrastructure, approaching a "library/post office" model in which collection, sorting, and redistribution are treated as essential services. Innovation here is adjacent: new partnerships, infrastructures, and service models extend beyond current resale platforms, enabling shared back-end systems, regional hubs, and more orchestrated flows of goods.

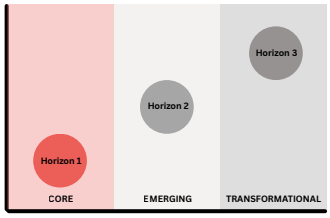
Horizon 3: TRANSFORMATIONAL - Transforming the Future State

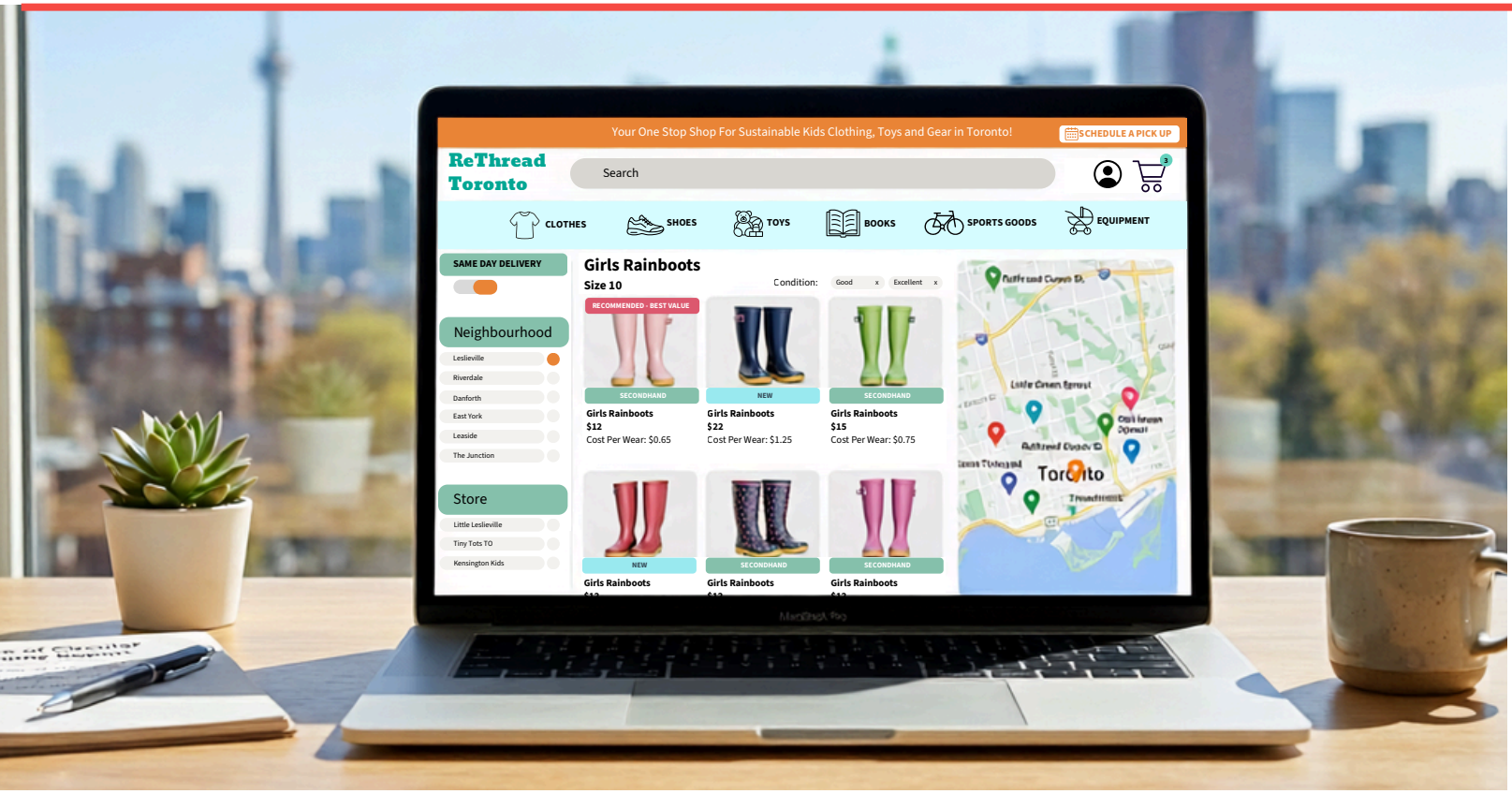
Horizon 3 describes the "far future" in which new paradigms become dominant. Ownership shifts from individuals to systems of stewardship, where items are treated as assets with ongoing value rather than one-time purchases. Brands retain ownership and participate in shared infrastructure, while users access, return, and circulate goods through coordinated systems that manage repair, redistribution, and lifecycle value. In this future, value is realized over time through repeated use rather than at the point of sale. Modular design, repairability, and embedded data enable items to move seamlessly across users, supported by shared standards and coordination layers. The burden of managing goods shifts away from households and into the system itself, reducing cognitive load and embedding participation into everyday life. Innovation here is transformational: it redefines ownership, value creation, and the roles of brands, users, and infrastructure within the system.

IMAGINING FUTURES

HORIZON 1

Improving the Current State





Emily checks the weather and sees rain in the forecast for the next day. She remembers that Miley mentioned her rain boots no longer fit. But between work and everything else, she hadn't gotten around to replacing them.

Instead of searching across multiple sites, Emily opens **ReThread Toronto,** a platform that brings together secondhand and sustainable options in one place. She enters Miley's size and filters for nearby availability.

Within seconds, she sees a small set of relevant options: secondhand boots from verified local sellers, alongside a few new, sustainably made alternatives. Each listing includes standardized sizing, condition ratings, and a simple cost-per-wear estimate. One option is marked "recommended" based on fit and proximity.

Emily selects a secondhand pair listed by a nearby shop. At checkout, she chooses same-day delivery. The system coordinates pickup from the store and bundles it with other neighbourhood orders already in transit. The boots arrive that afternoon.

A few months later, when Miley outgrows them, Emily receives a notification prompting her to return them to the system. She schedules a pickup, receives a credit and the boots are routed back into circulation, ready for the next household.

Horizon 1 Description

In this future, fragmented systems and high cognitive load are solved through digital aggregation of existing infrastructure. By creating an overlay of current physical and digital options, a platform like ReThread Toronto could enable access to goods - both secondhand and new sustainable items - that are otherwise fragmented to find and purchase.

The roll-up and market aggregation strategy has proven successful in models like Uber Eats, where it has facilitated access to restaurants previously unknown to potential customers. In this way, ReThread Toronto can help customers access options that are hard to navigate or not well-known. Comparably, when Ritual launched in Toronto - a digital order-ahead pick-up app for restaurants, primarily targeted at people who don't want to wait in line on their lunch break - they also helped restaurants to digitize their menus in order to drive their revenue by being showcased on the platform. ReThread could offer brick-and-mortar stores a similar motivation to showcase their inventory digitally to reach a larger audience, helping alleviate overhead costs.

ReThread could also offer drop-off points for verified sellers to sell on behalf of busy parents who don't want to take on the listing responsibilities themselves on platforms like Facebook Marketplace. Given similar digital interventions in the market, this horizon shows promise in providing value and benefit to retailers and end-customers alike.

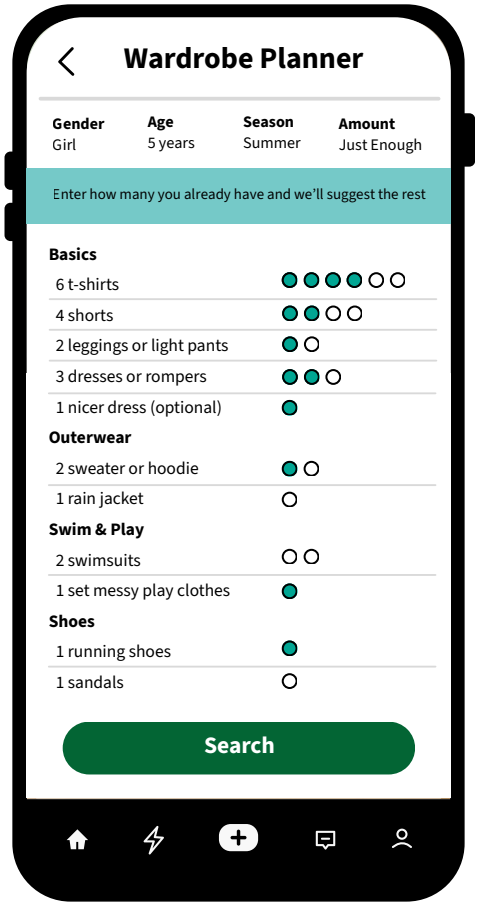
Evaluating Horizons Against Design Goals

The following assesses how each horizon advances the core design goals, highlighting where impact is strongest and where limitations remain.

Goal	Score	Rationale
Reducing Fragmentation	●●●●○	Connects supply digitally, but systems remain distributed
Enabling Participation	●●●●●	Aggregation and logistics reduce effort and improve access
Aligning Value with Reuse	●●○○○	Limited impact on consumption norms

Horizon 1 Artifacts

These artifacts are concrete items and visual mock-ups that illustrate what might exist in this future scenario.



In the interviews, parents described how hard it is to know how many clothes are "enough," and to plan ahead for upcoming seasons. The default is often to overbuy, just in case.

A wardrobe-planning tool embedded in a circular shopping platform like ReThread could offer simple guidance on typical ranges, for example, "most parents aim to have 5–7 T-shirts per season". This can help households right-size wardrobes and curb anxiety-driven overconsumption.

From there, personalized shopping assistance on the platform could suggest specific items to fill the gaps. Parents could indicate that they don't yet have a rain jacket, for instance, and receive prompts when an appropriate option appears in the right size, style, and colour, with delivery preferences pre-set. This reduces the mental load of scanning multiple sites while still supporting more intentional, "just enough" purchasing.

Many parents in the interviews noted how valuable it would be to have an "all-in-one" drop-off option for resale or donation. This concept builds on that desire by offering at-home pickup of unwanted items, with credit or cash back in return.

By using the optimal geographic scale, a platform like ReThread operating in high-density Toronto neighbourhoods could also provide same-day or next-day delivery for purchases, creating a fast, local loop for letting go of and acquiring children's clothes.

Reasons to Believe

Aggregated marketplaces have already shown how bringing many fragmented offers into one searchable place can dramatically reduce effort into a single, seamless experience that customers want (and have come to expect). Public libraries, for example, offer a hybrid online-offline experience through a single, easy-to-use catalog and hold system that lets people reserve what they need and pick it up at their local branch. Local toy libraries could apply this same logic to kids' goods by using simple digital catalogs, reservations, and pickup systems to aggregate play resources across a neighbourhood.

Photo: South Riverdale Parent Resource Centre Toy Library offers free in-person access to a library of toys. Credit: Author's photo.

User Demand

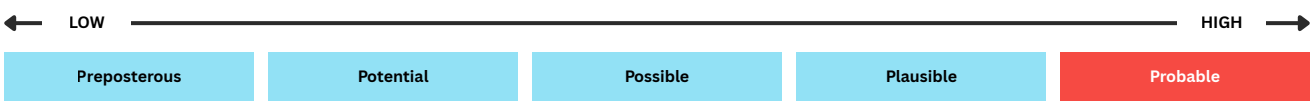
Survey responses consistently point to a desire for reduced effort and simplified pathways. Barriers such as time, effort, and the burden of listing and coordinating sales were among the most frequently cited challenges. Parents expressed a strong interest in someone else managing buying and selling, with requests for "someone picking it up from my door."

System Feasibility

The underlying infrastructure already exists. Delivery networks, inventory tracking systems, and marketplace interfaces are well established across retail and logistics. The opportunity lies not in building new capabilities but in applying existing systems to circular flows by connecting resale, pickup, and distribution into a coordinated experience.

Likelihood of Realization: Probable

This horizon is highly feasible, with strong market proof, clear user demand, and the necessary infrastructure already in place. The primary challenge lies in integrating these elements into a seamless circular experience.



System Implications

Intervening at this meso layer prompts additional system questions of how this would impact the macro layer of the system, as well as the micro layer of the system, and what would have to be true to enable the successful adoption of this implementation.

Macro (Industry / Policy)

This intervention does not require immediate system-level change to implement, but at scale could reduce demand for new production, shift volume away from linear retail, and increase resilience to external pressures such as tariffs by localizing circulation.

Meso (City / Community)

This intervention would require participation from existing stores across the city. It would also benefit from having a selection of verified community sellers who could sell on behalf of individuals to maintain peer interactions, while vetting and curating supply.

Micro (Household / Individual)

This intervention could reduce the effort required to find, evaluate, and circulate goods, making participation more predictable and manageable within everyday routines.

Based on reserch from The Regional and Circular Ecological Sphere (R-CES) framework, this intervention would be most successfully implemented at the city-wide scale of Toronto to balance inventory and audience, with the possibility of refining to smaller neighbourhood loops as adoption grows.

Where This Could Fail

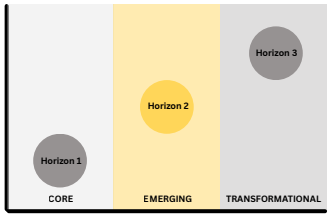
Each horizon presents both opportunity and risk. The following highlights where failure is most likely, and how it can be tested or mitigated early.

Possible Failure Point	How to Test / Mitigate
Doesn't feel easier than existing options (e.g. Amazon)	Benchmark time, steps, and effort against leading platforms; aim for equal or faster completion
Aggregation doesn't meaningfully reduce effort	Test guided vs open browsing; prioritize recommendations over full catalog exploration
Trust in secondhand remains low (quality, fit, hygiene)	Introduce standardized condition grading, easy returns, and "no-risk first purchase" pilots

IMAGINING FUTURES

HORIZON 2

Expanding the Current State



On a Saturday morning, Emily stops by her local **ReThread Neighbourhood Hub** while out with Miley. The space brings together secondhand and sustainable, locally-made options that are curated into category-specific shops, like sports, books, and outerwear, alongside donation, repair, refurbishment, and upcycling services.

Each location offers a relevant selection to the neighbourhood, while inventory flows between hubs based on demand - circulating across the network much like books in a library system. What feels local is supported by a coordinated network operating behind the scenes.

Emily drops off a bag of outgrown items, browses a curated selection in-store, and picks up a jacket she reserved earlier. While she's there, Miley joins a workshop where kids use reclaimed materials to make something new by turning old parts into a toy she can take home.

What used to take multiple steps now happens in one place, supported by a system that coordinates inventory, logistics, and use across the city, under one thriving community hub.

Horizon 2 Description

In this future, fragmentation and cognitive load are solved through neighbourhood physical infrastructure, which complemented by overlayed digital infrastructure. By creating a physical hub, families have a one-stop location for both offloading and intaking new items.

As donations come into the space, sorting logistics occur in the backend, determining what is ready for resale immediately, what requires cleaning or repair, and what can no longer be used in its current form and can be broken down into its base components to be remade into something new.

Market aggregation, intentional merchandising, and curation of stores or departments like outerwear, sporting goods, toys, books, and clothes, allows parents to search for their specific needs. Being able to try things on in-store offers de-risking, which can also be enabled by generous return and trade-in policies. 81% of parents surveyed said they would be interested in donating their items (without financial compensation) if it required almost no effort (48.3% responded 'very true', 32.8% responded 'somewhat true'). By offering pick up or providing store credits, this model could incentivize parents to donate their items to keep them in circulation within the community. 66% of survey respondents indicated that knowing the goods would be used matters more than financial compensation (35.3% responded 'very true', 29.3% responded 'somewhat true'). This model could also ensure that while many goods would be sold for profit to support overhead costs, items could be donated to families in need, or offered at a very steep discount to enable autonomy and decision-making for all families.

Evaluating Horizons Against Design Goals

The following assesses how each horizon advances the core design goals, highlighting where impact is strongest and where limitations remain.

Goal	Score	Rationale
Reducing Fragmentation		Connects supply and services digitally, but systems remain distributed across actors
Enabling Participation		Aggregation, curation, and logistics reduce effort and improve access, but still require active user management
Aligning Value with Reuse		Improves resale and reuse pathways, but operates alongside continued new consumption

Horizon 2 Artifacts

These artifacts are concrete items and visual mock-ups that illustrate what might exist in this future scenario.

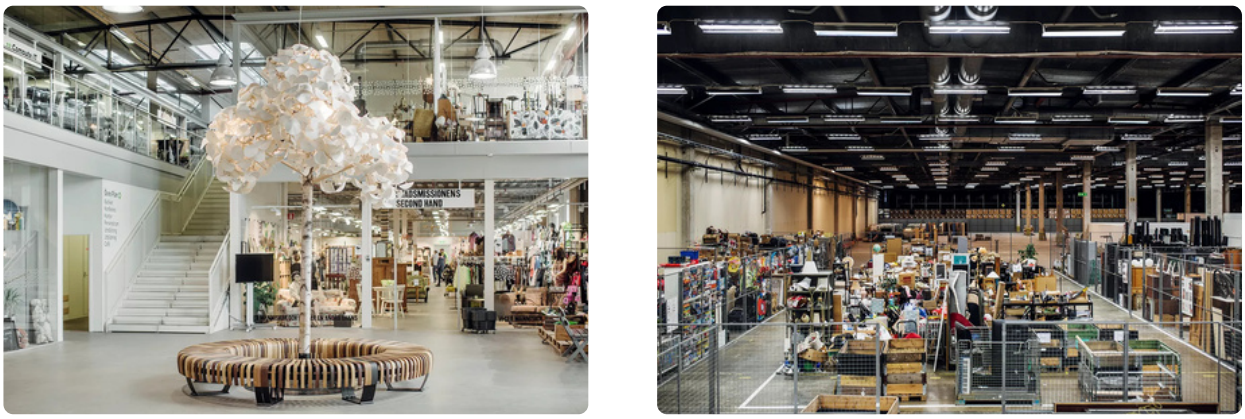
Designing circular hubs as third spaces for community connection shifts away from retail as a driver of consumerism and toward shared resources, repair, and reuse. Instead of being places you go mainly to buy things, these hubs become places to walk, linger, and connect, with play areas, indoor walking paths, community events, repair circles, and displays of local children's artwork. This is especially powerful for elderly residents and others who currently rely on malls as social and walking spaces that are now disappearing, offering an intergenerational commons where people can be together without needing to spend money.

The commons could include maker dens that carefully disassemble items that can no longer be worn or used, sorting out clean scraps and reusable parts. These materials would be available like a craft store or open workshop, where people can experiment, repair, and build new things from what was once waste.

A "stuffy repair" workshop could offer an entry point into repair culture, where old, worn-out stuffies are taken apart, and kids can build their own new creations. Spaces like this could offer birthday workshops, drop-in patching and mending sessions for worn-out clothes, and evening sewing circles for families. The goal would be to leave with items that feel newly cherished rather than disposable. Redesigning space for joy and connection can help turn maintenance into a social, creative ritual rather than a chore.

Reasons to Believe

Early examples of circular retail environments, such as the ReTuna Mall in Sweden - the world's first fully recycled mall - demonstrate that resale, repair, and education can be integrated into a single, desirable destination. At the same time, reports on shopping habits of Gen Z note a return to malls, not as a retail space, but as a space for social connection and interaction (Week, 2025).



Photos: Front and back end of ReTuna Återbruksgalleria Mall in Eskilstuna, Sweden. Credit: ReTuna Mall Media Kit.

User Demand

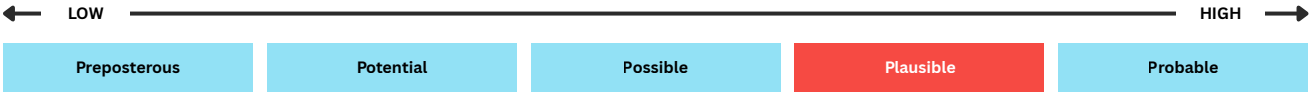
Survey responses point not only to a desire for convenience, but for more coherent systems. Parents expressed interest in "one place" or "one process" to manage children's items, along with accessible, nearby locations and clearer pathways for items leaving the home.

System Feasibility

The core components of this model already exist, but operate separately: retail spaces, logistics networks, repair services, and inventory systems. The opportunity is to coordinate these elements at a community scale, move inventory across a network of locations, and maintain locally relevant, curated experiences.

Likelihood of Realization: Plausible

This horizon is achievable but requires greater coordination across actors, infrastructure, and geography. While the underlying components exist, success depends on aligning partners, establishing shared systems, building sufficient density to support networked operations, and funding the costs of significant physical infrastructure.



System Implications

Intervening at this meso layer prompts additional system questions of how this would impact the macro layer of the system, as well as the micro layer of the system, and what would have to be true to enable the successful adoption of this implementation.

Macro (Industry / Policy)

This intervention would be best supported by federal and provincial policy regulations that support the R-CES framework and provide supports like tax credits, rent subsidies, and funding.

Meso (City / Community)

While this intervention could operate as an independent non-profit (or even a for-profit), municipal support and partnerships with waste management would be critical for long-term success.

Micro (Household / Individual)

This intervention could reduce the effort required to find, evaluate, and circulate goods, making participation more predictable and manageable within everyday routines.

Physical neighbourhood hubs that enable the flow of goods through various neighbourhood hubs would be best enabled at the meso/community layer. Using the R-CES framework these hubs would be higher in number in more dense areas like Toronto, and more spead out in suburban or rural areas.

Where This Could Fail

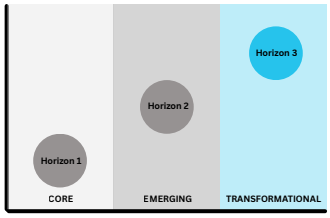
Each horizon presents both opportunity and risk. The following highlights where failure is most likely, and how it can be tested or mitigated early.

Possible Failure Point	How to Test / Mitigate
Coordination across actors breaks down	Start with small, coordinated pilots (one neighbourhood) partner with municipalities and anchor retailers to establish shared standards early
Insufficient density to support the model	Launch in high-density areas where supply and demand are already strong; test viability before expanding to broader geographies
Infrastructure exists, but isn't used	Track repeat usage (not just sign-ups); design for habitual use through convenience, integration into routines, and clear value at each interaction

IMAGINING FUTURES

HORIZON 3

Transforming the Future



It's a Sunday afternoon, and Emily watches her daughter Miley, who is now a mother herself. She sees her daughter at the table, smoothing the sleeve of a small jacket with the kind of ease that still surprises her. Around her, a few neatly folded items sit in quiet order, some to be repaired, some ready to move on. Miley checks something briefly on her phone, then sets aside the small jacket that's in need of repair. A pickup has already been scheduled, and a replacement one is on its way.

In the background, her grandson plays on the floor, absorbed, while just outside, a courier moves quietly through the yard. Things come and go without interruption. No searching or second-guessing. Emily remembers when it felt different.

The tabs open late at night. The piles in the hallway. The constant calculation of what's worth keeping, what's worth selling, what's worth the effort. How much of life revolved around the micro decisions of consumption? How much friction there was. How convenience was something you chased, and never quite caught.

Now, the work seems to live somewhere else - in the system itself. Things move gently. Outgrown clothes don't linger; they reappear, repaired and ready. Nothing feels scarce, but nothing feels excessive either.

Emily notices how little anyone talks about "buying." People ask what's available, what fits, what's next. Ownership has softened into something else, something lighter. Temporary, shared, understood. She watches her grandson pick up a small toy, turning it over in his hands as if it's new, though it clearly isn't. And she realizes, this is what enough looks like. Not less, not sacrifice. Just…no more than what's needed.

For a moment, she tries to imagine explaining to them how it used to be. But she lets it go.
They wouldn't understand. And maybe they don't need to.

Horizon 3 Description

In this future, the concepts of ownership and consumption have been transformed. There is no longer an ideology of ownership over items, but rather stewardship of the integrity and quality of the items that flow through the collective. In this model, brands maintain ownership of products and lease them to their client base through a mutual agreement of collective stewardship, where value is maintained over time rather than realized at a single point of sale. This creates ongoing economic incentive for brands, who continue to generate value from the same item across multiple use cycles.

When an item requires repair, it is brought to a central location, like the **ReThread Neighbourhood Hub,** which acts on behalf of the brand to repair or refurbish it, and to manage the relationship between client and product in order to keep community stewardship grounded in connection rather than consumption. Rather than individuals managing possessions, the system takes on the work of maintenance, coordination, and recirculation.

This future builds on the ideas of take-back programs and emerging closed-loop business models, which integrate resale, repair, reuse, and recycling into a continuous flow. Research suggests that these models can extend product lifecycles while increasing total value captured across multiple users, reframing products as assets with ongoing value rather than disposable goods (Jain et al., 2021; Shamsuzzaman et al., 2025).

Evaluating Horizons Against Design Goals

The following assesses how each horizon advances the core design goals, highlighting where impact is strongest and where limitations remain.

Goal	Score	Rationale
Reducing Fragmentation		Fully integrated system where supply, repair, and redistribution are coordinated through shared infrastructure
Enabling Participation		Participation is embedded in the system; minimal effort required as access, repair, and return are seamlessly managed
Aligning Value with Reuse		Value is generated through repeated use; economic incentives reward durability, repair, and circulation

Horizon 3 Artifacts

These artifacts are concrete items and visual mock-ups that illustrate what might exist in this future scenario.

As the concept of ownership shifts, small neighbourhood hubs could function as autonomous kiosks built into everyday routes. You could drop off items, have them automatically scanned and valued, and receive credits or cash to your account, then select items to buy or rent and simply walk out. The system would handle payment or rental setup in the background, making circular shopping as seamless as tapping into a convenience store.

In this future, circular ways of living and sharing are embedded in everyday life, with goods moving freely through community spaces rather than hiding in closets or landfills. Families drop off outgrown items to be repaired, and borrow or rent what they need next, all while spending time in commons-like places that feel more like parks and plazas than stores.

Normalizing secondhand gifts could start with kids' birthdays, where receiving a beautifully wrapped, pre-loved toy or outfit from a trusted platform like ReThread feels special rather than "less than." It also invites children to experience the joy of giving, not just receiving, enabling them to experience gifts as circulating community resources rather than brand-new possessions.

Reasons to Believe

Emerging models in product-as-a-service, modular design, and brand-led take-back programs signal a shift away from ownership toward stewardship. Companies are beginning to experiment with durable, repairable goods and closed-loop systems, while digital infrastructure increasingly enables tracking, valuation, and coordination at the item level. At the same time, growing cultural discourse around overconsumption and "enough" suggests a readiness to rethink not just how we buy, but whether ownership is necessary at all.

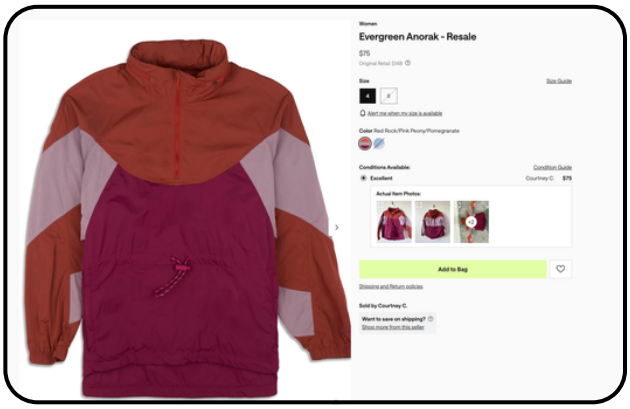


Photo: Lululemon Resale Platform offering a used jacket for sale by a Lululemon customer.

User Demand

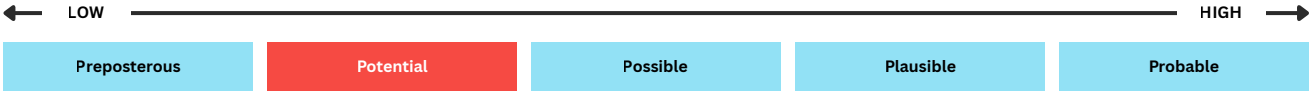
While current behaviours are still anchored in ownership, underlying needs and desires - even if not explicitly said - point in a different direction. Parents are not only seeking convenience, but relief from the ongoing cognitive and financial burden of managing children's goods. One of the biggest challenges parents in the survey noted was storage and what to do with items they have acquired but don't need at the moment. This implies the potential for systems that remove the need to buy, store, resell, and replace, shifting the focus from managing possessions to accessing what is needed when it's needed.

System Feasibility

This model builds on existing components, such as digital platforms and blockchain, but requires rethinking how value is created and sustained. Items become assets with embedded data and ongoing value, supported by modular design, repairability, and coordinated lifecycle management. This requires shared standards, interoperability across brands, and trusted coordination layers.

Likelihood of Realization: Potential

This horizon represents a more transformative shift, requiring changes in business models, consumer mindsets, and supporting infrastructure. While early signals are visible, widespread adoption depends on aligning incentives across industry, building enabling policy and standards, and reshaping cultural norms around ownership and consumption.



System Implications

Intervening across these layers prompts additional system questions of how these layers would influence each other and what would have to be true to enable the successful adoption of this implementation.

Macro (Industry / Policy)

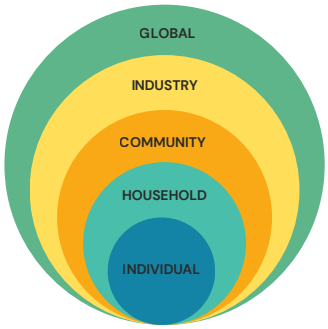
This model would require a shift in how value is defined and captured across the industry. Policies and incentives would need to support circular business models, including standards for durability, repairability, and extended producer responsibility, and financial models that reward lifecycle value rather than volume of sales.

Meso (City / Community)

The system would require coordinated digital and physical infrastructure and governance models to manage relationships across brands, service providers, and communities, ensuring interoperability and consistency across the system.

Micro (Household / Individual)

This model would fundamentally shift the role of the individual from owner to participant, changing norms in cultural value and identity.



This intervention would operate at every level of the system from the global policy level of materials production to industry standards, labour laws and extended producer responsibility laws, to the community/city level where individuals are interacting with products to a fundamental mindset and behaviour shift in the household and for individuals.

Where This Could Fail

Each horizon presents both opportunity and risk. The following highlights where failure is most likely, and how it can be tested or mitigated early.

Possible Failure Point	How to Test / Mitigate
Cultural shift doesn't materialize	Design for hybrid behaviour (assume mix of new + circular, not full replacement)
Secondhand or multi-use never fully displaces new consumption	Test alternative value signals ("smart choice", "better use", not just "sustainable")
Brand-led models proliferate without coordination	Establish policy-led shared standards that direct interoperability across brands

SUMMARY

Mapping Our Way to The Future

These horizons offer possibilities for how future transformation can be designed using existing infrastructure, consumer behaviour and cultural norms. With each Horizon offering optionality in how to achieve the outlined design goals, these horizons act as a palette of interventions, allowing different parts of the system to move at different speeds and initiatives to overlap, skip ahead, or run in parallel depending on local opportunity and capacity.

Horizon 1 can be activated quickly to tune structures and strategies in the existing system, while Horizons 2 and 3 offer deeper shifts in spaces, governance, and cultural norms that can unfold over longer timeframes or in specific neighbourhood pilots.

Different actors might move on different horizons at different moments, and many of these interventions can run in parallel, reinforcing one another as circular options become easier, more visible, and more culturally valued. Rather than competing visions, they are stackable routes that all build toward a more connected, sufficiency-oriented future for families and textiles

Horizons Mapped Onto Donella Meadows Leverage Points

SHALLOW ← MID → DEEP

ACTIONS	BEHAVIOUR	STRUCTURE	STRATEGY	PARADIGM
Horizon 1 Improving the current state		aggregates information and logistics so secondhand feels easy, e.g. local pick up	uses incentives and rules (e.g. clear standards) to nudge families toward reuse	normalizes secondhand as convenient and acceptable
Horizon 2 Expanding the current state		repurposes retail and public spaces into circular hubs that combine resale and repair	shifts the goals of the system from maximizing new sales to maximizing circulation and value creation	positions circular hubs as social destinations, not just places to shop
Horizon 3 Transforming the future state		builds commons-based infrastructure (e.g. neighbourhood exchange hubs) that makes shared ownership the default	reorients strategies around sufficiency and mutual care, measuring success in access	anchors "enough" mindset, where value comes from connection

Figure 33. Horizons Mapped Onto Donella Meadows Leverage Points

CONCLUSION

What Happens Next

CONCLUSION

What Happens Next

The future of consumption is circular. In a world of finite resources - where the textile industry alone accounts for almost 10% of global CO_2 emissions and 20% of global water use (Shamsuzzaman et al., 2025) - there is little doubt that we must reimagine linear consumption models that treat materials as disposable. Yet today's fragmented systems still place most of the responsibility for managing these materials on individuals, especially parents, who are already navigating intense financial, emotional, and cognitive demands. Parents move through clothing, gear, and toys at an especially rapid pace as children grow, making them both among the most affected by the current system and among the most powerful potential stewards of a different one. Many want to live in line with their values and model a better future for their children, but cannot consistently do so within the constraints of everyday life.

This report argues that relying on individual effort alone will always fall short. Meaningful change depends on redesigning the systems that surround families so that the easiest, most obvious choices are also the most sustainable ones. Circular futures emerge when we design for the system to absorb complexity through structure, strategy, and paradigm together, not just "better shopping."

Across the three horizons, this work offers a range of design interventions that open multiple pathways toward a different future. In Horizon 1, small, immediately feasible changes, such as digital aggregation of local supply, toy libraries with reservation systems, or concierge resale, begin to tune the existing system toward reuse without asking parents to do more. Horizon 2 reimagines consumption more fundamentally, showing how physical spaces and business models can evolve into circular hubs, like ReTuna-style malls, that prioritize connection, repair, and learning as much as transaction. Horizon 3 gestures toward deeper cultural shifts, where sharing, sufficiency, and secondhand gifts become a joyful default rather than an exception.

Most importantly, these horizons are combinable pathways. Different actors can move on different horizons at different times, and initiatives at one level can reinforce changes at another. A city might pilot Horizon 2 hubs while local stores experiment with Horizon 1 aggregation strategies, and through these changes, families begin to adopt Horizon 3 practices like normalized secondhand gifting. Together, these overlapping efforts sketch a plausible route toward a more circular, caring future for families and the textiles that move through their lives.

Implications

The proposed interventions have implications for stakeholders across the system, including:

Implications for Municipal and Regional Governments:

- **Invest in connective infrastructure.** The proposed interventions suggest that public actors can play a critical role in funding and enabling local logistics, shared inventory systems, and neighbourhood hubs that make reuse and repair visible, easy, and safe.
- **Align policy and regulation with circular goals.** Policymakers can ensure that zoning, procurement, and extended producer responsibility policies are designed so that circular services are as supported and legitimate as traditional retail.

Implications for Retailers and Platforms:

- **Prototype circular business models.** Retailers can move towards a circular future by piloting take-back programs, branded resale, repair offers, and subscription or rental models that intersect with existing customer journeys.
- **Use data and design to reduce friction.** Applying the same tools that optimize e-commerce (like nudges for recommended items) to secondhand and shared inventory can make circular options feel as dependable as buying new.

Implications for Community Organizations, Schools, and Libraries:

- **Act as early hosts of circular commons.** Much of this is already happening, but continuing to invest and expand these programs, like clothing libraries, repair workshops, and skill-sharing events, helps to embed circular practices in the routines of everyday life.
- **Support mindset and skill shifts.** Programs that teach basic repair, creative reuse, and critical consumption can help children and caregivers build new norms around “enough”.

Implications for Funders and Philanthropy:

- **Back experimentation across horizons.** Funders can resource a portfolio of pilots and scaled projects that provide collective learning on how systemic change emerges from many coordinated experiments, not a single flagship project.

Next Steps

To move from research to action, this report points toward a focused set of next steps:

Develop a Business Model Canvas:

- Synthesize insights from the research and early pilots into a business model canvas that clarifies key partners, value propositions, customer segments, cost structures, and revenue streams for digital platforms and neighbourhood circular hubs.

Pilot Retail Aggregation:

- Determine interest and feasibility from a pilot group of secondhand children's store owners in Toronto to test the hypothesis of aggregated digital retail spaces.

Explore Logistics and Pricing Models:

- Convene parents and small retailers to co-develop service concepts, governance arrangements, and pricing models of pick up resale services.
- Run small-scale tests (e.g., weekend pick-up routes, limited-time pricing experiments) and use them to update the business model canvas and operational assumptions.

Explore Partnership Interest

- Review the proposed design interventions with municipal and community partners to explore how a neighbourhood commons or circular hub could be hosted and governed.
- Explore interest from philanthropy, impact investors, and social finance intermediaries in supporting early pilots, with a view to building a financially resilient model over time.

Final Thoughts

Ultimately, the goal is simple: make reuse easier for families, easier for everyone. It may take decades for a system like this to become the norm. But rewriting the story of value will take time. The circular economy is already here. But now is the time for intentional effort and momentum to ensure its success, so that what we pass on to our children is not only clothing, but a living example of care in practice.

From worn-through to worn-again: a small act of care that points to the larger system we can build. Author's photos.

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APPENDIX

Supporting Documents

APPENDIX

Supporting Documents and Disclosures

Appendix List:

Appendix A: Survey Data

- Full survey details from the Parent Research Survey of 116 parents in Toronto

Appendix B: Visual Sources

- Additional information on visual sources used in this report

Appendix C: AI Disclosure

- Descriptions of how and where AI was used in developing this report

APPENDIX A

Parent Research Survey Raw Data

1. What are the ages of the children in your household? (select all that apply)

Response	Count
Under 2	30
2-5	71
6-10	56
11-15	14
Over 15	4

2. What is your role in the family?

Response	Count
Mother	113
Father	3

3. When it comes to managing children's clothing, gear, and belongings — including buying, keeping track of what fits, storing, passing on, selling, donating, or discarding — which best describes your role?

Response	Count
I handle most of it	105
I handle more than half	5
It's roughly evenly shared	5
I handle less than half	1

4. In a typical month, about how much time do you spend managing children's clothing and gear? (Including: noticing what no longer fits, researching, buying, sorting, donating/selling, managing storage)

Response	Count
1-5 hours	57
5-10 hours	39
10-15 hours	16
15-20 hours	3
20+ hours	1

5. When you need to replace or acquire children's clothing or gear, how long does the process usually take from realizing the need to resolving it?

Response	Count
A few days	41
About a week	39
Several weeks	18
Ongoing / never fully resolved	15

6. Which parts of this process take the most effort for you?

Response	Count
Finding time to deal with it at all	62
Deciding what to do with outgrown items	50
Finding suitable options to purchase	48
Researching suitable options	43
Planning ahead for future needs	33
Noticing what no longer fits or works	33
Coordinating pickups or drop-offs (if purchasing from peer to peer site)	32
Managing returns or exchanges	19
Managing shipping and arrival timing (e.g. making sure items arrive when needed)	7

7. Which of the following most often limits your options when buying children's items?

Response	Count
Mental load / decision fatigue	70
Lack of time	51
Cost	45
Uncertainty about quality or fit	44
Availability of suitable options	32
Feeling overwhelmed by options	29
Urgency (needing it immediately)	18
Inability to return item if needed	5

8. When it comes to trying to shop more sustainably (e.g., secondhand, repair, resale) for children's items - which statement best reflects your experience?

Response	Count
I actively look for sustainable options first, even if it takes more time or effort	36
While I care about sustainability, I often choose the fastest or easiest option	28
I choose sustainable options when they are convenient	26
While I care about sustainability, cost usually determines my decision	14
Sustainability is not a major factor in my decisions	6
While I care about sustainability, the aesthetic of the clothes often determines my decision	4
I'm not sure / It depends	2

9. When it comes to trying to shop more sustainably (e.g., secondhand, repair, resale) for children's items - which statement best reflects your experience?

Statement	Count			
	Very True	Somewhat True	Slightly True	Not True At All
Managing my children's clothing and gear feels mentally demanding	34	55	24	3
Even when I'm not actively shopping, I am often thinking about what my children need next	58	32	20	6
I feel primarily responsible for keeping track of what my children will need in the future	91	18	6	1

10. How often does managing children's stuff feel mentally "unfinished" (e.g. piles to be sorted, decisions postponed)

Response	Count
Almost always	53
Often	27
Very often	21
Occasionally	13
Almost never	2

11. Right now, how many children's items do you have that is no longer needed but hasn't been sold, donated, or passed on? (e.g. clothes, outdoor gear, sporting equipment, nursery items, activity chairs and bouncers, etc - for non clothing, imagine each item = 1 bag/box)

Response	Count
A moderate amount (3-5 bags or boxes)	41
A large amount (more than 5)	36
A small amount (1-2 bags or boxes)	34
Almost none	5

12. If you were to resell your unused children's items at typical secondhand market prices, what do you estimate the total resale value would be for all of the items in your home?

Response	Count
$100-$200	31
$200-$300	23
Under $100	23
$500-$1000	15
$300-$500	14

13. What usually prevents these items from being moved along?

Response	Count
The effort required to photograph and list items to sell online	68
Lack of time	56
Dealing with online logistics of selling online (e.g. being available for pick ups, managing offers)	51
Low expected resale value (doesn't feel "worth the squeeze")	50
Emotional attachment	23
It's mentally overwhelming	22
Not wanting to deal with resale/consignment stores	18
Not knowing where to take or sell them	16

APPENDIX B

Visual Sources

This appendix lists external photos and illustrations used in the report, including source links and licences where applicable. Author's original diagrams and photos are not listed.

Section	Page	Image Description	Credit	License	Source
Title Page and Section Headers	1, 8, 13, 26, 34, 49, 59, 71, 92, 96, 106	Colourful wooden game pieces	DS Stories via Pexels	Free	Link
Context	16	Zara in a mall	Burst via Pexels	Free	Link
Context	18	ThredUp Warehouse	ThredUp Media Asset Distribution	Free	Link
Context: Disposal Pathway	20	"Purchase" folded baby clothes	Canva stock photo	Free	Canva
Context: Disposal Pathway	20	Value Village Exterior	Author's Photo	n/a	n/a
Context: Disposal Pathway	20	"Resell" Colourful bales of clothes	StockCake	Free	Link
Context: Disposal Pathway	20	"Ship" Arial View of Kantamanto Market	McElvaney via Greenpeace	Fair Dealing	Link
Context: Disposal Pathway	20	"Dispose" Ghana Waterside	McElvaney via Greenpeace	Fair Dealing	Link
Context	23	Working Mother	Ketut Subiyanto via Pexels	Free	Link
Opportunity Space	53	Juno Vet Lobby	Juno Vet Website	Fair Dealing	Link
Opportunity Space	53	Staged House, 55 Galt Ave	Re/max Hallmark Realty Ltd., Brokerage	Fair Dealing	Link

Section	Page	Image Description	Credit	License	Source
Opportunity Space	54	Outfit Comparison	Vestiare Collective Circularity Report 2024	Fair Dealing	Link
Opportunity Space	54	Patagonia Jacket	Patagonia Worn Wear, Film Still Image	Fair Dealing	Link
Opportunity Space	55	Black Gown	Fitzroy Rentals, Zendaya Gown by Lexi	Fair Dealing	Link
Opportunity Space	55	Shop App	Shop App, Digital Assitant Map, Shopify Blog	Fair Dealing	Link
Opportunity Space	56	Open Table Reservation App	Brand to Table, Open Table Pro Marketing Tools	Fair Dealing	Link
Opportunity Space	56	Lovevery, The Adventurer Toy Kit	Lovevery Product Image	Fair Dealing	Link
Design Interventions	64	Heat Map	Canva Stock Photo with amendments	Free	Canva
Imagining Futures	76, 77, 80, 82, 85, 87	AI Generated Images - Various	Adobe Firefly	Free	Adobe Firefly
Imagining Futures	78	Value Village Toys	Author's Photo	n/a	n/a
Imagining Futures	83	ReTuna Mall	ReTuna Media Kit	Free	Link
Imaginging Futures	88	Lululemon Jacket	Lululemon Resale Platform	Fair Dealing	Link
Conclusion	95	Heart Leggings	Author's Photo	n/a	n/a

APPENDIX C

AI Disclosure

Use of AI Tools

As the author, I am the sole writer and researcher for this report, having independently designed the study, conducted the analysis, and written the report. AI tools were used in a limited editorial capacity (e.g., phrasing alternatives, layout suggestions and grammar checks). Tools include: Perplexity, ChatGPT, Adobe Firelfy and Grammarly. All ideas, interpretations, and conclusions are my own, and I am responsible for any remaining errors.

Examples of Use:

- AI tools were used to review some sections of completed work and to provide feedback. Much of this feedback was not adopted directly, but it served as a sounding board to explore alternative ways of interpreting the information, which I then independently researched, evaluated, and refined.
- Suggest alternative phrasings, such as headings and figure captions.
- Provide suggestions on page layouts and information architecture design.
- Generate images that were used in the 'Imagining Futures' section of the report.

AI tools were not used to generate empirical data or to make analytic claims without interpretation; all such decisions were made by me.