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Unlocking dormant products: Systemic leverage points and design strategies for household circularity

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Abstract: A functioning circular economy relies on households recirculating products once they are no longer needed. However, households often accumulate products in wardrobes, cupboards, and other storage spaces. While contemporary design practices often reinforce this through encouraging new purchases and attachment, unlocking dormant products for reuse emerges as a new challenge for design. This paper draws on a systems analysis of how products move into, around, and sometimes out of the home, based on household interviews and visits. The analysis reveals how products slip out of use and become forgotten as stored mass, requiring significant effort to recirculate. We identify key leverage points where designers, together with circular economy stakeholders, can intervene to support increased product recirculation. Based on workshops with circular designers, we articulate and exemplify a set of design strategies, showing an expanded understanding of design's role in enabling product circulation within the deeper layers of everyday life.

Keywords: Circular consumption; Reuse; Households; Design strategies

1. Introduction

The transition to a functioning circular economy relies on households letting go of products once they are done using them, so that they become available to new households to use (or for circular actors to refurbish or recycle). However, studies show that households instead tend to accumulate dormant products in their homes; filling wardrobes, cupboards, and other storage spaces with everything from clothes, electronics, appliances, furniture, toys, to tools and renovation material (Eimterbäumer & Jaeger-Erben, 2024; Löfgren, 2014; Wieser et al., 2023). Suarez and colleagues(2016) describe how products end up in a liminal zone between use and disposal inside homes, through mostly unconscious and co-incidental processes. Once products have been accumulated, households tend to hold on to products for multiple emotional and practical reasons, or instead dispose of them through non-circular divestment paths (Cruz-Cárdenas & Arévalo-Chávez, 2018; Sarigöllü et al., 2021). We see great potential in unlocking and releasing these products into the second-hand market, beyond the environmental benefits of increased circular consumption. Second-hand

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retailers need more products to meet growing demands (Fredriksson, 2025), and many households feel overwhelmed with the amount of stuff they own and would like to get rid of them (Löfgren, 2014).

Current design practices tend to exacerbate the accumulation of products in households. This is driven both by the continual introduction of attractive new products, reflecting design's bias towards novelty (Coops et al., 2024), and through design strategies that foster attachment to products, encouraging households to retain items they no longer actively use or have replaced (Kowalski & Yoon, 2022). However, we also see a new role for designers to start taking more responsibility for what happens to the product once it is in the hands of the user and support moving products along. Exploration into what this could mean in practice has begun, for example how to design for recontextualization (den Hollander et al., 2017), how to design for letting go (Poppelaars et al., 2020), or as part of circular design tools (Rexfelt & Selvefors, 2024).

However, how households handle products and whether and how they move them along is part of a large and complex home system of practice (Eon et al., 2018; Glover, 2016; Löfgren, 2014). Collectively, the literature points to vast numbers of open and hidden personal, cultural, practical, and infrastructural factors that come together with everyday practices (Greene et al., 2024) to set the conditions for reuse of products and extension of active lifetimes. This paper thus adopts a systems perspective to explore how products move into, around, and sometimes out of the home, as well as how design could contribute to addressing the challenge of increasing reuse. Aligning with recent work in transition design which integrates systemic levers, behaviour, and worldview in sustainability transitions (Peeters et al., 2025), we identify key leverage points where designers and circular economy stakeholders can intervene to support increased product recirculation and we articulate and exemplify a set of design strategies showcasing design's role in enabling product circulation by unlocking dormant products.

2. Method

Our objective has been to build transferable designerly knowledge (cf. Cross, 1999) on how to address dormant products in households and facilitate their reuse. We have applied a research-through-design approach, utilising methods and processes from design practice as tools in the research process (Zimmerman et al., 2010). The work presented in this paper stems from a larger project about increasing reuse and is informed by several studies conducted in northern Europe. An overview of the activities related to this paper can be seen in Figure 1. The process has included synthesizing insights from visits and interviews with households and various actors with the product recirculation system such as e.g. auction houses, charity shops, and recycling centres (hereby referred to as *Reuse Enablers, RE*), creating a system map based on the insights, a series of ideation workshops to generate ideas, and a final analysis to articulate the ideas into transferable, design-oriented insights.

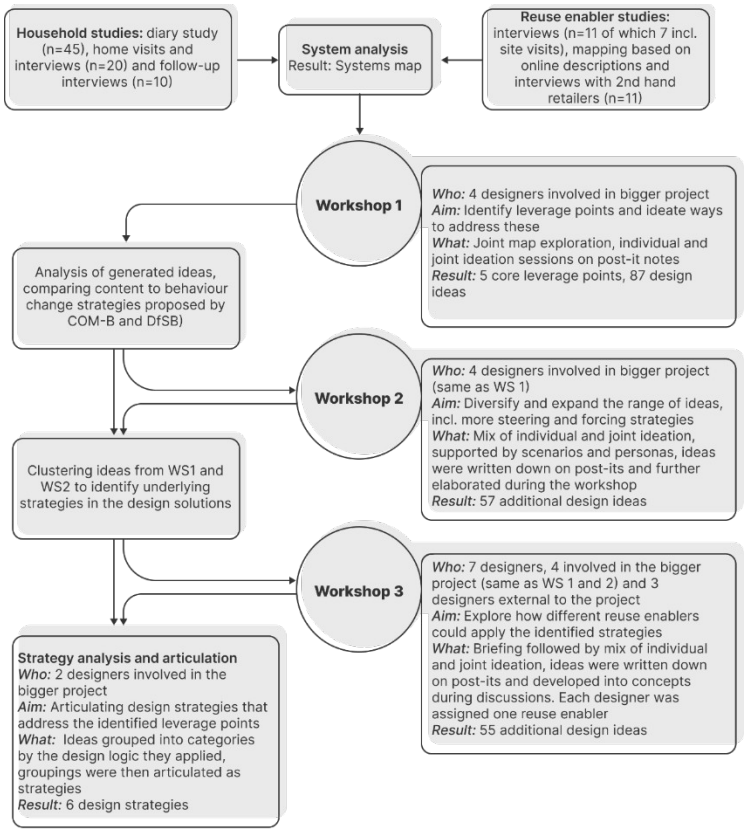

Figure 1 Overview of the process of the work presented in the paper

The empirical foundation is based on several studies (described in detail elsewhere) studying recirculation of products from (1) the perspective of households, including diary studies (Nilsson et al., 2023), home visits (Nilsson et al., 2025 a), and follow-up interviews, investigating which dormant products people store at home, why they keep it, and their experiences of recirculating products to new households, and (2) the perspective of Reuse Enablers, including mapping the offers and activities of different types of Reuse Enablers (Nilsson et al., 2025 b), and interviews with a variety of Reuse Enablers about their challenges and experience.

The collected study insights were analysed in a systems analysis, resulting in a system map central to the rest of the process. A system map is a valuable way to gain a comprehensive view of a problem and its contributing factors and dynamics, in this case the various ways and reasons behind why products move through or get stuck in a household. Each element on the map represents key events, factors and variables drawn from the studies and the links describe how they relate. The map was iteratively refined to highlight reinforcing and balancing loops within the system, which were essential to understand how products become dormant and accumulate in households.

The system map in turn was the starting point for a series of workshops, representing the more generative design activities of the process. Three workshops were conducted with evolving focus, each building on the outcomes of the previous workshop, forming an iterative inquiry into how design can contribute to increased recirculation of products (see Fig 1). In line with a research-through-design approach (Zimmerman et al., 2010), the workshops were not only means of generating design ideas but served as reflective

experiments through which new understandings of how design can enable product recirculation were constructed.

- Workshop 1 aimed to identify leverage points, places in the system map where smaller changes have a big impact (Meadows, 1999), in the system map and explore how design ideas could disrupt or support reinforcing loops in the system and thus facilitate product recirculation. After the workshop, the facilitator analysed the generated ideas in relation to two common behaviour change frameworks, COM-B (Michie et al., 2011) and DfSB (Lidman et al., 2011), and identified gaps in the design space as most ideas focused on informing and motivating.
- Workshop 2 aimed to diversify the idea range by exploring steering and forcing strategies for behaviour change (cf. Lidman et al., 2011). Scenario cards and personas were used in the workshop to inspire diverging ideas during the brainstorming. After the workshop, ideas from both workshops were analysed to identify common themes and underlying strategies.
- Workshop 3 aimed to further expand the design space by exploring how different Reuse Enablers could apply the identified strategies in practice. The focus shifted from individual and behavioural perspectives towards systemic and service-level ideas. This workshop invited external designers without experience of the specific project, but with knowledge about circular economy. Each designer was provided a descriptive card about one Reuse Enabler to take on their perspective when designing.

The strategy analysis focused on constructing transferable, design-oriented insights in the form of design strategies for product recirculation that could be broadly applicable for a variety of actors to support recirculation of dormant products. In this, the full range of ideas from the workshops were treated as materials for reflective inquiry with the aim to abstract the specific ideas into more general, designerly knowledge (cf. Zimmerman & Forlizzi, 2008). Through iterative reflection, the ideas were abstracted into higher-level design strategies – a process aligned with the construction of intermediate-level knowledge, which is generative knowledge situated between general theories and particular instances (Höök & Löwgren, 2012; Löwgren, 2013). In practice, ideas were first grouped based on the overarching design logic they exemplified, for example ‘hooking into ongoing processes’ or ‘concerning social relations’. These groups were then divided and organised according to which leverage point in the system map they addressed, revealing how different types of strategies could address multiple leverage points across the system. Finally, the design strategies were analysed to assess whether they were actionable for different types of actors in the reuse system (such as households, businesses, municipalities). The final mapping presents actionable strategies uniquely targeted to supporting active use and recirculation of dormant products, illustrating how diverse actors can intervene in the household system to reactivate dormant products and facilitate their reuse.

3. Product movements through the household system

The starting point for constructing design strategies for bringing dormant products into reuse was a systems analysis on how products move through a household. A much-simplified version of the resulting system map is shown in Figure 2, highlighting four key leverage points for intervening in the system, as well as a fifth leverage point at the boundaries of the system. These were identified in Workshop 1.

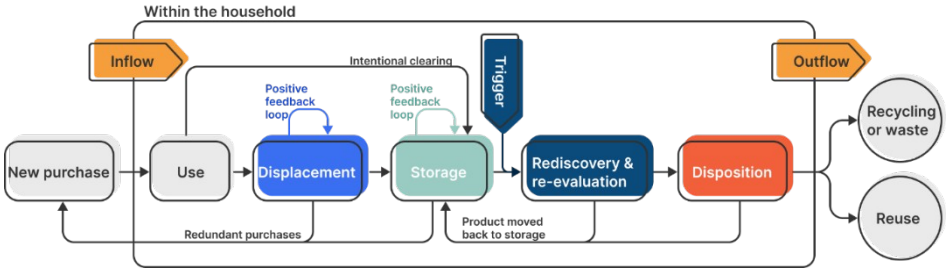

Figure 2 The simplified system map describing how products move through or accumulate in households. The original map contains 73 elements with several links and interconnections each. Here, boxes with a unique colour indicate the core identified leverage points.

Addressing the leverage points on the right side of the map has potential to deal with currently accumulated products and facilitate their reuse, while addressing leverage points on the left side of the map instead can increase active use of products and prevent future accumulation. However, the movement of products through the household is connected to all leverage points, and for recirculation to happen, the product must move towards recirculation throughout. Currently, the system analysis reveals that products tend to take a path that leads to increased storage and prevents products from moving out. Contributing to this are the reinforcing loops identified within, and sometimes between, leverage points which in different ways accelerate products movement into dormancy or prevent product recirculation. Each leverage point with its elements, links and loops will be presented in detail below.

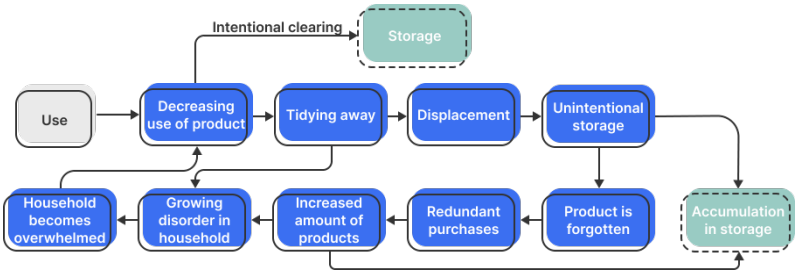

Figure 3 Displacement, excerpt from the detailed system map

The first leverage point, *displacement* (Figure 3), describes how products become unused, forgotten, dormant, and displaced in households. Products gradually move out of everyday use and unintentionally into storage. They become hidden in plain sight, in the back of cupboards, or in the wrong place e.g. because of quickly tidying up before guests come over. Once hidden, they are forgotten and replaced by new, redundant purchases, forming a positive feedback loop. This increases the number of products in the home and contributes to an increasing sense of disorder and clutter. This in turn creates a lack of visibility and

awareness that contributes to dormancy in products. Households need to maintain oversight to prevent products being displaced from use and hidden in storage.

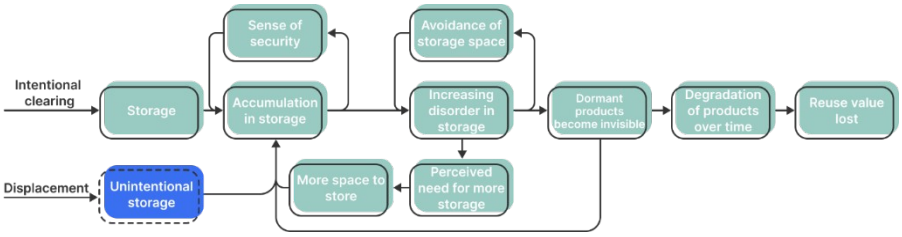

Figure 4 Storage, excerpt from the detailed system map

The *Storage* leverage point (Figure 4) captures how dormant products accumulate in domestic and external storage spaces, due to both displacement and intentional clearing. As products move into storage they become increasingly difficult to locate and recall, further reinforcing the loss of visibility. Over time, accumulation of products leads to growing disorder and lack of space in storage which triggers avoidance behaviours and the desire for more storage. If more storage is acquired, households fill this storage space as well, further exacerbating the problem of accumulation and making accumulated products even more difficult to bring into reuse. One additional positive feedback loop is the sense of security households experience from storing things, further reinforcing their tendency to accumulate products. While households believe in optimising storage systems, we instead see opportunities in shifting the system paradigm to increasing engagement with stored products and reframing storage from safekeeping to stewardship.

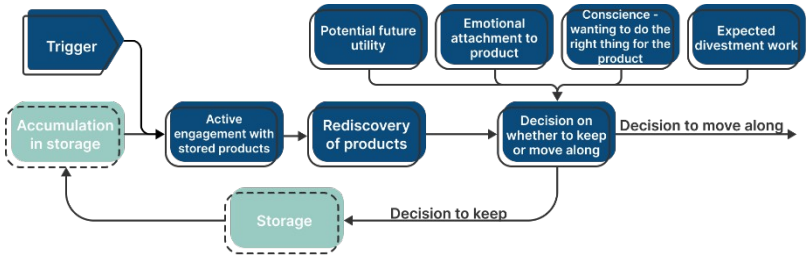

Figure 5 Rediscovery and re-evaluation, excerpt from the detailed system map

The third leverage point, *Rediscovery and re-evaluation* (Figure 5), marks the occasion when dormant products re-enter household awareness. This often relies on some form of trigger, such as overflowing storage, moving houses, or seasonal change. When rediscovery is triggered, a process of re-evaluation is initiated where households reflect whether to keep the product. Several factors weigh into the decision, including the product's practical, emotional and social value, its history and predicted future and the desire to do right by the product. Often the decision is to keep the product, moving it back into storage. Even if households want to move it along, the expected effort of divestment often outweighs the benefits and the process stops. This represents a critical leverage point in the household system, as it exposes the gap between awareness of a product, and the action of divesting it. Currently, divestment competes with other everyday activities with higher priority and hesitation is fuelled by households' inability to predict future needs. Households need support in re-evaluation and reasonable expectations of what divestment entails to translate awareness into action.

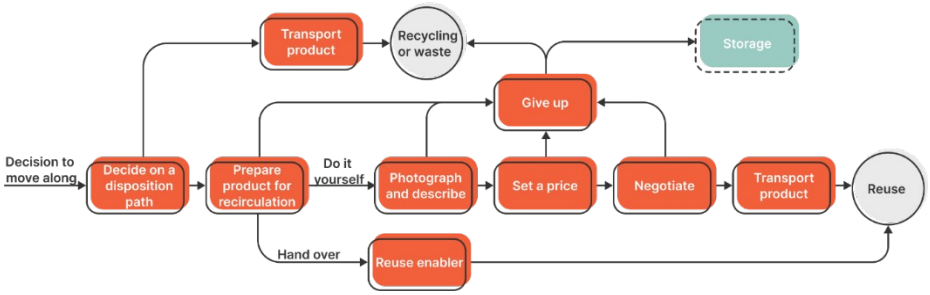

Figure 6 Disposition, excerpt from the detailed system map

Disposition (Figure 6) is the final leverage point in the product's route through the household, if the household has made the decision to move it along. As households attempt to recirculate dormant products, they face a series of practical hurdles – cleaning, photographing, describing, negotiating, and transporting the product depending on the chosen disposition path. Each of these require significant time, effort, skill and knowledge, as well as plenty of social interactions. Failure to perform either of these steps will halt the process, but it also risks moving the product into a less circular disposition path, such as recycling, waste or back into the storage, as these demand less or no work. Households need facilitation and support throughout these steps, from deciding on a disposition path to practically carrying it out.

The balance of inflow and outflow emerges as an additional leverage point when looking at the whole system in Figure 2. Households had an imbalance between the inflow of new products and the outflow of dormant ones. A large inflow continually introduces new products faster than existing products can be circulated out of the household. This imbalance triggers and amplifies the other reinforcing loops, as the increased inflow contributes to displacement, lack of visibility and awareness of current possessions, accelerates accumulation in storage and contributes to redundant consumption bringing even more products into the household. Addressing this imbalance requires more systemic interventions, in addition to addressing the insular reinforcing loops in the system. More mindful acquisition is part of this, along with connecting in- and outflow in a way that circumvents displacement and storage, as well as embedding product management and recirculation as a valued household practice.

4. Strategies to increase product recirculation

Analysing all ideas from the workshop series allowed us to identify several cross-going themes with the potential to become articulated design strategies. These themes reveal joint challenges in all leverage points across the system map, and thus product recirculation as a whole. The bullet list below outlines the strategies with connection to these joint cross-going challenges and explains the design logic behind the strategies and how different actors could apply them. Since all these challenges co-exist, the power of the strategies increases if they are used in combination as they then address a larger scope of the issue.

- **Make products visible (again).** This strategy targets the phenomenon of products gradually becoming hidden in everyday life and in the complexity of recirculation processes (replaced, tidied away, hidden behind others,

reframed as accumulated mass or waste). Once invisible, products will not be used or recirculated, unless rediscovered. This design strategy directs attention to products, to make them visible again. Exactly what to direct attention towards varies across leverage points – from what is not in use, to what is in storage, to the value products have in a new home. This strategy can be used by all types of actors.

- Provide guidance. Across the whole system map, households lack competences and skills required to do the work associated with product management and recirculation. The lack of skills makes the work seem unmanageable, stopping households from engaging. This strategy aims to provide necessary skills by broader education and direct step-by-step guidance, to increase follow-through and provide additional motivation. This can either be provided by actors interested in supporting circular consumption (municipalities, NGOs) or integrated into Reuse Enabler services and platforms households utilise.
- Lean on the professionals. Again, this strategy targets the lack of competences and skills, but also time in households. Though, here we recognise that there are actors who possess these qualities and offer them for sale. However, even professional actors may need to lean on other professionals to provide full recirculation services. This design strategy therefore encourages households to get help as well as invites old and new actors to become Reuse Enablers, develop their offers and build networks, hopefully increasing the job market associated with the circular economy.
- Hook into ongoing processes. The relation and timing between recirculation and other household processes is critical from both Reuse Enablers and household perspectives. Households do not tend to handle products unless triggered by another process, whereas Reuse Enablers rely on receiving the right products to recirculate at the right time. This design strategy plays on timing and ongoing processes, by introducing timed triggers to match both household and Reuse Enabler needs, or to insert reuse-support in times and processes where dormant products are handled in less circular ways.
- Experiment with the rules. Because of the complexity of household product management, recirculation and the many forces pushing for more consumption, households feel lost. This strategy therefore introduces rules, as even arbitrary rules-of-thumb were perceived by the studied households to offer something to hold on to. Rules can either be dictated from outside actors, or households can experiment and develop their own rules, as part of building new social practices of product management and reuse.
- Do it together. Across the system map, social relations, obligations, norms, and insecurities show up as reasons to keep dormant products or avoid recirculating them to a new home. Households are keener to put effort into

recirculation if they know the product is going to a good home. This strategy therefore builds on already existing social relationships to circumvent issues of trust, to strengthen social bonds and to reduce the hassle associated with recirculation. Recirculating to people close by also reduces logistical issues that may otherwise add unnecessary environmental impact.

When applying the strategies the conditions of the specific leverage point must be considered. Table 1 illustrates the strategies application for each leverage point, using ideas that emerged during the workshops, to showcase their interpretation in relation to each leverage point (as described in section 3). Table 1 also showcases how they can be used to design various types of solutions that can support recirculation – from product *features* that producers can incorporate, *business* ideas for Reuse Enablers, *initiatives* for the public good, to ways in which *households* can develop new practices that prolong active use or increase reuse. Some strategies are easier to apply for some actors, like experimenting with the rules for households, or lean on professionals to develop Reuse Enabler businesses.

Table 1 (next two pages). The strategies exemplified for each of the identified leverage points, with a mix of ideas including product features, social good initiatives, Reuse Enabler business ideas, and ideas that the households themselves can implement.

	Displacement	**Accumulation**
Make Products Visible (Again)	Household: Use simple systems to track use, like turning clothes hangers around. Feature: Products notify when not used (e.g. the Addicted Products Toaster) or the use of other products (e.g. a robot vacuum that tracks if products are dormant).	Feature: Shelving system that pushes one thing out when another thing is placed on it. Feature: Design products to resist storage, e.g. shapes that stand out, move, or do not fit.
Provide direct guidance	Initiative: "Tidy for active use" Cleaning guide to avoid unintentional displacement in e.g. lifestyle magazines, home economics classes.	Business: Offer "spring cleaning" toolkit for storage spaces with recirculation focus, including guide, ways to catalogue, bags to sort for donation, selling, swapping.
Lean on the professionals	Business: Cleaning service add-on –cleaners notify you of things at home that are dusty and likely unused; may even recirculate it for you.	Business: Home organisers that help optimize your product inventory for your lifestyle.
Hook into ongoing processes	Household: Integrate divestment activities when shifting seasons (e.g. when putting patio furniture in winter storage or getting summer clothes out).	Household: Make it a habit to bring one thing out of storage when you are there to place something inside.
Experiment with the rules	Household: Challenge to use as many different products as you can in a month. Household: Toy rotation (divide toys into smaller groups; swap regularly). Try for other product categories.	Household: Always maintain one empty unit of storage (cupboard, drawer, shelf, box) or clear one unit each week. Business: Self-storage services impose time limits to storage (incl. offer to transfer to RE when time's up).
Do it together	Household: Agree to stop tidying up before having company over. Household: Treasure hunting game – go around in the house together to find things that are becoming invisible.	Initiative: Shared neighbourhood storage where everyone has access, can see what's in there and request to use. Household: Party game where friends secretly remove one thing from your storage, if you can't name it you have to sell it.

Rediscovery	Disposition	Balanced flows
Business: Self-storage services host events to go through your unit (bonus: REs invited). Feature: Storage solutions invite rediscovery; colour of box changes if not touched, a spotlight that randomly lights up one spot in the storage.	Business: Provide a tool that estimates the reuse value of the things in storage. Business: Postcard from your divested product to show the value it has brought to someone else.	Feature: Add reselling gains to bank expense tracking, notify when balance between in- and outflow is off. Business: Home inventory app to show you already own to prevent double purchases (e.g. Sortapp.co).
Initiative: Videos of people clearing out their storage and reasoning about what to keep and move along. Business: RE advertise current second-hand trends and demand to guide divestment.	Business: Provide "starter kit for selling online" with step-by-step guide, pricing examples, postage, packaging material. Feature: Provide easy access to important resell information (e.g. Digital Product Passports).	Initiative: Organise "reuse-fair" where households can meet all REs and learn about the circular system. Initiative: Organise repurposing workshops to reactivate products, stem inflow.
Business: "Death cleaning for the living" full-service reuse-consultants. Business: Specialised therapy service to deal with the emotions of accumulated stuff and letting go.	Business: Build connections to other RE professionals, who can recirculate certain products more effectively.	Business: "Personal anti-shopper" services.
Business: Add-on services when moving house, real-estate agents or moving companies help sort and connect you to REs. Initiative: Connect rediscovery events to specific days, e.g. earth hour, holidays.	Business or initiative: Incorporate reuse at recycling centres; information on what to bring and safe transport. Business: Incorporate pick-up & delivery into other services that already drive around (e.g. ice-cream truck).	Business: Support trading of products in second-hand stores.
Household: Trial use rarely used products to evaluate if they should stay or go. Household: Quarantine box to stop remorse; if not used within time limit, it can go.	Initiative: Mandatory recirculation course or quiz to be able to use recycling centre/waste management service.	Household: Purchase rules, like search second-hand before buying new, wait time before purchase or one in, one out. Initiative: Impose rationing of new goods.
Household: Divestment parties or body doubling. Gather onsite or online and decide what to do with dormant products together. Initiative: Neighbourhood competition, who can divest most?	Initiative or Business: Organise reuse events with established local communities (sports clubs, schools, churches). Business: Include wanted adds or other ways of matching buyers and sellers.	Household: Family (or friend) consumption council decides on in and outflow. Initiative: Organise local exchange and reuse events, e.g. first day of school where younger kids can get things from the older.

5. Discussion

This paper has aimed to explore and showcase new opportunities for design in enabling the recirculation of dormant products between households in a circular economy. In relation to previous research on product retention and recirculation, this paper provides a systemic analysis on how products fail to, and could be made to circulate, between households from a household perspective. It ties together knowledge and experiences from households and Reuse Enablers, on households and Reuse Enablers, to paint a comprehensive picture to inform how to design for unlocking dormant products for recirculation.

We expand current designerly knowledge in two steps. First, by mapping product movements in the household system and its many interconnections, we reveal how

products become lost or stuck in the home and thus unavailable for reuse. Particularly, we highlight five interconnected but distinct leverage points**,** i.e. places within the system where a small shift can lead to a big increase in recirculation. These leverage points can be used by designers and other circular actors as a basis for developing product recirculation solutions suited to household practices and needs.

Eimterbäumer and Jaeger-Erben (2024) have previously proposed the importance of the leverage point we denote as rediscovery, as situations that trigger rediscovery of products and revaluation processes are critical to move products out of dormancy and promote circular practices. Our household system perspective has expanded on this through identification of additional leverage points related to inflow, displacement, and storage. This shows how the complex nexus of practices that make up everyday life contributes to accumulation of dormant products and hidden dynamics that prevent them from entering the reuse-market. Identifying these systemic leverage points moves beyond previous extensive and descriptive studies of household product divestment practices (Glover, 2016; Gregson et al., 2007) to actionable insights with potential for impact.

Second, we present six design strategies grounded in empirical data and articulated using a research-through-design approach. These strategies respond to larger underlying challenges for product recirculation as a whole. They therefore have the potential to be relevant for more product categories and actors than previously suggested design strategies for divestment, for example Sas and colleagues' (2016) design for rituals of letting go of digital artefacts after a loss or Poppelaars et al.'s (2020) design principles for divestment of mobile phones. Although broader than previous divestment strategies, our strategies still provide more contextualised knowledge than more generic design for behaviour change frameworks which could also be applied to design for recirculation. While such frameworks (e.g. Lidman et al., 2011; Michie et al., 2011) were used as inspiration for one stage of the workshop series, we have added additional insights from the system map, the underlying studies, and the participating designers to make our proposed strategies uniquely targeted to the context of 'households recirculating products'. However, the strategies need further validation to ensure their usefulness, beyond the limited number of designers who tested them during the project. Both strategies and system map also need to be critically reviewed and revised from a global context as they currently build on empirical material from a north European context and input from north European designers (although from different countries).

Single strategies or ideas can be used to support households to become active nodes in circular consumption. However, we stress the need to recognise that the whole practice of product management and recirculation is missing crucial elements and links (Närvänen et al., 2023), as the whole system map and strategies provide a deeper level understanding and action space for design's contribution to product recirculation. For recirculation to increase, all leverage points must be addressed, since recirculation stops if one part of the system fails.

Our proposed strategies tackle households' current accumulated dormant products, the unintentional displacement of them, and accumulation of more products. Many of these strategies demand that households actively spend time and effort on doing work associated with being a circular consumer. There is a limit to how much of such consumption work households can take on as it competes with other everyday routines and often is in tension with norms of convenience in everyday life (Hobson et al., 2021). Thus, we see that a

transition to circular consumption cannot only depend on behaviour change from households, even if it is crucial that they let go of their products. All actors currently involved in product recirculation, along with new actors, play important roles in establishing the infrastructures, service and norms that could support households as shown by the ideas in Table 1. Many of the ideas labelled *household* in Table 1 should also be supported by outside actors, to not overwhelm households with excessive responsibility. We hope the system map and strategies support such actors in developing these solutions together with designers.

Crucially however we find that a necessary condition for implementing the proposed strategies is currently missing: society must place greater value on the management and recirculation of products. For the proposed strategies and ideas to succeed, households also need to be willing to pay for services that support recirculation. Yet our studies show that willingness to pay for reuse-enabling services remains low. This signals that broader societal change is needed in the form of societal re-valuation of recirculation as legitimate and respectable work. However, as demand for second-hand products continues to grow (Fredriksson, 2025), the value of supplying these markets should logically increase, potentially creating stronger incentives for households to release dormant products. Additionally, to stem the root of the accumulation – the inflow of products into households – further societal change is needed. While the strategies we present can help address a symptom of overconsumption, i.e. the accumulation of dormant products, additional efforts are required to target the causes of overconsumption including norms, culture, and the political and corporate interests that lock us into an economic system dependent on growth (Callmer, 2019; Sanne, 2002). To facilitate these changes, designers may need to let go of current design practices and ideals (Coops et al., 2024), taking the opportunity to not only design new solutions but to also design away old and unsustainable practices.

6. Conclusion

In conclusion, we hope this paper has contributed to a richer understanding of how design can enable product recirculation within deep layers of everyday life and unlock dormant products. By offering actionable designerly knowledge to a wide range of actors, we hope households can be supported to become active nodes in circular consumption with a culture of care and responsibility (cf. Eimterbäumer & Jaeger-Erben, 2024). We believe that recognizing the interconnectedness of product recirculation with other aspects of households and society and embracing systemic interventions can gradually transform more targeted design strategies into infrastructure, norms, and policy that support a coherent recirculation practice.

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