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Garment Reuse in Practice - Insights from a Clothing Swap

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Abstract: Reuse is a key strategy to intensify the use of goods. Hence, clothing swaps are typically presented as a sustainable alternative to conventional fashion consumption. However, research into the mechanisms and dynamics behind these exchanges remains limited. Using qualitative and quantitative methods to study a swapping event in a city in Belgium, this study explores the potential of clothing swaps to enable the reactivation and reuse of clothing. The mass flow analysis reveals that about half of the garments brought to an in-person swap using an indirect exchange system found new owners. Certain garment types (t-shirts and sweaters) were more easily swapped than others (pants). Survey responses indicated that participants use swaps to hand off dormant clothing that is no longer suited to their needs. Further, participant stated that most of the garments they acquired will substitute the purchase of garments. When comparing the wardrobe composition of swap participants to a general sample, we found that swappers have a similar wardrobe size but a much higher fraction of pre-owned garments. Unexpectedly, swap participants had a slightly higher fraction of dormant garments in their wardrobes. The observed differences cannot be solely attributed to participation in swap events, as participants are likely also engaged in other reuse activities. Meaning it provides an important glimpse into the potential effects society-wide policies focused on increasing garment reuse could have on wardrobes. To summarize, by combining different methods, this study provides new insight into the dynamics behind swapping, and clothing reuse in general.

Introduction

Today, ownership is a prominent norm in consumer culture. However, this leads through overproduction and consumption to negative environmental impacts (Niinimäki et al., 2020). Given the current sustainability crisis, there is an increasing need to shift away from a culture of ownership to one of access (Park & Armstrong, 2017). The circular economy (CE) model supports this transition by promoting the continuous use of resources at their highest utility, considering environmental benefits (Alaerts et al., 2019). CE strategies like refuse, repair, reuse, and recycling aim to extend the life of products and materials (Kirchherr et al., 2023). For consumer goods like clothing, a key strategy is reuse, which extends the product lifetime beyond the initial owner, recognizing that our needs may change before a product's full potential is realized.

It is often assumed that CE strategies will yield environmental benefits, for example by extending product lifetimes (Bączyk et al., 2024). However, these benefits can be offset by circular rebound, for instance when easier access to goods leads to increased consumption (Bączyk et al., 2024). For example, the lower price of second-hand goods could increase total clothing consumption. To fully evaluate the environmental impact of CE strategies, it's essential to understand consumer behaviour in relation to CE strategies (Bączyk et al., 2024).

This paper looks at participation in a clothing swap event as a case study on reuse. The following section gives background on circular clothing consumption and clothing swaps. This is followed by a description of the methods. Finally, we present and discuss the results.

Theoretical Background

Clothing use in a circular economy

A CE aims to avoid the environmental impacts of production and waste treatment processes by elongating and intensifying the use of products and materials (Alaerts et al., 2019).

For clothing, this would mean using and maintaining garments for as long as possible. Research indicates this is currently not the case, with garments going out of use before they become deficient (Laitala, 2014). This is evident in reusable garments ending up in waste streams (Vermeyen et al., 2024), and in the finding that about a fourth of the items in an average wardrobe go unused over a year (de Wagenaar et al., 2022; Vermeyen et al., 2025). There are various reasons for clothing to go out of use prematurely, from boredom to changing body types, or changing needs (Laitala, 2014; Vermeyen et al., 2025). A CE seeks to reactivate reusable garments, for example, by enabling a change of ownership. Reuse through second-hand markets is one way to achieve this, clothing swaps are another.

Clothing swaps

Clothing swaps are a form of collaborative consumption, defined as "an economic model based on sharing, swapping, trading, or renting products and services, enabling access over ownership" (Belk, 2014). The general idea of a swap is a 'one-for-one' exchange, which can essentially be seen as a redistribution of goods (Park & Armstrong, 2017). Clothing no longer relevant to the individual can be swapped, potentially fulfilling a changing need for clothing without the purchase of new items (Lang & Zhang, 2019) .

Clothing swaps can take on different forms, from informal meetings with friends and family, to big public events to permanent swap shops where members exchange garments for free or a small fee, to online platforms (Matthews & Hodges, 2016). This organizational context is important to consider, as the interaction between participants differs based on the format (Camacho-Otero et al., 2020; Lang & Zhang, 2019). A swap can be a direct exchange between two individuals, however, this requires a direct match between the items being offered and looked for. As this is not evident, swaps often facilitate an indirect exchange, using a intermediate good, typically tokens. Tokens received for goods handed in can be used to acquire goods handed in by others. However, using this indirect system means there is no guarantee that all goods will find a new owner.

Previous research on (clothing) swaps is focused on behavior and motivations of participants, such as the barriers and drivers of participating (Henninger et al., 2019; Lang & Zhang, 2019; Matthews & Hodges, 2016), or the broader context of swap events (Camacho-Otero et al., 2020; Philip et al., 2019).

There is a lack of studies employing a quantitative approach to create a more comprehensive understanding of garment dynamics during swap events and their potential for clothing reactivation. Specifically, do garments obtained from swaps replace the purchase of new garments, or do they merely add to existing wardrobes? To summarize, this study seeks to address two key research questions: (1) Which types of garments are best suited for successful swapping?, and (2) To what extent does participation in swaps lead to a more intensive use of garments?

Method

The data discussed in this paper all relate to a swap event that took place in October 2024 in the city of Leuven (Belgium). Data was collected in three different ways: (i) the flow of garments during the event, (ii) an online survey amongst participants following the event, and (iii) a wardrobe audit at the home of a subset of participants following the event.

Case study

This paper discusses a clothing swap organized by an NGO focused on raising consumer awareness and promoting participation in circular clothing initiatives, such as reuse and repair, within the city of Leuven (Belgium). Since 2022 they have organized two clothing swaps each year - one in spring and one in autumn. Participation in the event is free of charge and entirely organized by volunteers. The swap is organized over two consecutive days: On the first day, participants hand in the items they wish to part with, receiving tokens in exchange. Smaller items, such as t-shirts, are worth less tokens than larger items, such as coats. On the second day, participants can use their tokens or pay a small price to acquire garments. The collected clothing is displayed by category (see Figure 1). Participants can freely browse and fitting rooms are present to try on garments. Unused tokens expire after the event. The remaining garments are donated to local charities. A volunteer coordinates this process to ensure that donations align with the needs and capacity of the recipient organizations.

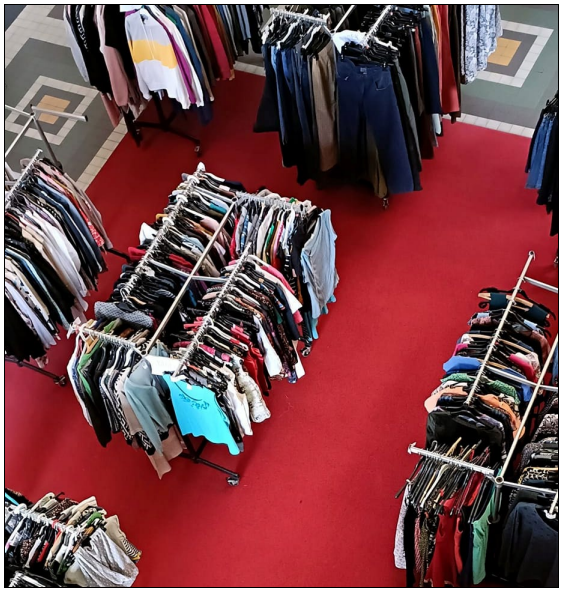

Figure 1. Presentation of clothing during the swap.

Mass flow analysis

To analyze the dynamics of an in-person clothing swap event involving indirect exchanges, data was collected on: (i) the number of items participants' handed in, by garment category, (ii) the total amount of items participants took home, (iii) the number of garments remaining after the event, by garment category.

Online survey

Following the swap, an online survey was distributed to participants through various channels, including QR codes displayed at the event exit, a Facebook and Instagram post, and newsletter email. A total of 44 participants completed the four-part survey. The first part contained general questions about participants' experience with clothing swaps. The second part focused on the clothing participants contributed to the swap. The aim was to gain a better understanding of the characteristics of garments participants chose to hand in. The third part asked about the clothing the participant acquired at the swap. The aim was to gain a deeper understanding of the selection process during the swap. Lastly, the fourth section collected demographic and socio-economic information, and inquired about participants' willingness to take part in a follow-up study on the composition of their wardrobes.

Wardrobe audit

A wardrobe audit uses quantitative or qualitative methods to systematically analyse the content of individuals' wardrobes (Maldini et al., 2023). In this study, the audit consisted of a systematic inventory of all garments within the scope of the study at the participant's home with a researcher present to guide the process. Underwear, swimwear, and accessories such as gloves, scarves, hats, bags, and shoes were outside the scope of the audits. For each garment category, the researcher recorded the total number of items, the number of dormant garments (items not worn in the past 12 months), and the number of pre-owned garments (items previously owned by someone else).

Initially, 27 individuals had expressed interest in participating in further research in the survey. These individuals were contacted and asked if they could make time for a wardrobe audit in November 2024. Ultimately, 15 audits were conducted. The participants were all women, aged between 26 and 71. Their audit results are compared to the 78 audits on women collected in Vermeyen et al. (2025) to assess whether the wardrobes of swap participants differ in terms of total wardrobe size, the fraction dormant, and the fraction pre-owned. These 78 audits are hereafter referred to as the 'baseline sample'. The audit results presented in this paper are preliminary and part of ongoing research. Increasing the sample size and applying statistical methods should bring further insight into the data presented. For instance, further analysis is required to identify and control for confounding variables.

Results and discussion

The results are presented and discussed across four thematic areas to shed light on the dynamics of clothing swaps: (i) garment flow during the swap event (ii) selecting garments to hand in, (iii) selecting garments to take home, and (iv) wardrobe composition.

Garment flows during the swap event

Figure 2 illustrates the flow of garments during the clothing swap. A total of 3,204 garments were handed in, of which 1,717 (54%) were successfully swapped during the event. Shirts - comprising of t-shirts, blouses, or dress shirts with either short or long sleeves - were, with 25%, the garment type most often handed in. Sweaters - comprising of all garments typically worn over shirts but under jackets - are a close

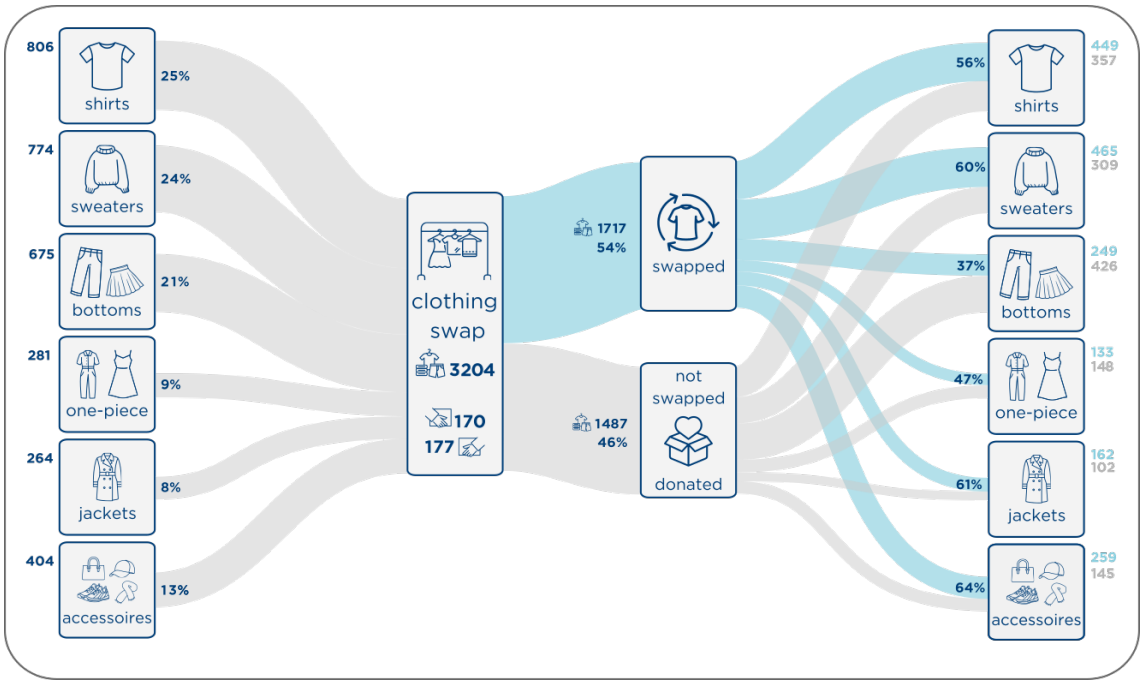

Figure 2. Flow of garments during the *autumn clothing swap*.

second with 24%, . Given the swap took place in autumn, it is likely that more winter-specific items, such as sweaters and jackets, were collected. Follow-up research during the 2025 spring swap will provide insight into this.

Approximately 170 individuals participated in the event, though the exact number of unique participants is unclear. This is because on the inflow side, some participants handed in clothing for multiple individuals, while on the outflow side, some individuals passed multiple times at the clothing check-out during the event. Therefore, the following results are presented in terms of packages handed in and taken out of the swap, rather than individual participants. A total of 170 packages were handed in, and 177 packages were taken out of the event. The size of the packages handed-in varied strongly between 1 and 240 items. Packages containing between 1 and 20 items were most common (75%). The size of the packages taken home varied between 1 and 66 items. Here packages containing between 1 and 10 items were most common (72%).

Based on the above, it can be concluded that most participants brought more items to the swap than they took away. Jackets and sweaters were the most likely to find new owners, with almost two-thirds selected. Bottoms - comprising of pants and skirts - were most likely to remain behind. A possible explanation for this is that sweaters and jackets are easier to try on, as well as, having a more universal fit. Pants, particularly jeans, were observed to be less appealing to participants.

To summarize, the mass flow results show that about half of the garments brought to an in-person swap using an indirect exchange system find new owners. The results further indicate that specific garment categories are more easily swapped than others.

Selecting clothing to hand in

Of the 44 survey responses, 41 reported handing in clothing to the swap. Consistent with the mass flow results, most respondents (n=31, 76%) indicate they handed in between 1 and 20 items. About half (n= 21) indicated all the items handed in were solely theirs, the remaining respondents also handed in items belonging to family or friends.

Next, the survey asked questions pertaining strictly to the garments the respondents owned themselves prior to the swap, thus excluding items they handed in for others. Respondents were asked to describe their garment selection process. Of the respondents, 31 (76%) specified they chose garments they no longer wore. A poor fit was cited by 21 respondents (51%) as the reason for the garment's disuse. This finding is further supported by the fact that, on average, respondents reported that four out of five items handed in had not been worn in the past 12 months. This aligns with Matthews & Hodges (2016), who found that clothing swaps are used to clean out wardrobes. Vermeyen et

al. (2025) found that individuals are more willing to part with garments that are dormant due to a poor fit or an undesirable style.
When asked if they were the first user of the pieces brought to the swap, respondents indicated that this was the case for about half of the items. Only five respondents (12%) indicated bringing exclusively items of which they were the first owner. This suggests that swaps function as a reuse circuit, where garments are repeatedly exchanged. This finding is corroborated by volunteers' observations that some items reappear in subsequent swaps. The survey questions indicate that on the supply side, clothing swaps have the potential to reactivate dormant items and facilitate reuse.

Selecting clothing to take home

All survey respondents indicated that they took clothing home from the swap. Three out of four respondents took between 1 and 10 pieces home, and similarly, three out of four indicated that they still had leftover tokens at the end of the event. The survey findings are in line with the mass flow analysis (Figure 2), which shows that participants brought about twice as many items as they took home.
When asked to what extent they sought specific items during the swap, responses varied widely: one-fourth of respondents indicated they were mainly looking for specific pieces, while another fourth had nothing specific in mind and were just browsing, the remaining respondents fell somewhere in between. Next, respondents were asked to what extent they believed the items taken from the swap would substitute for new purchases. On average, participants believed that eight out of ten items taken from the swap would replace new purchases. Applying this finding to the mass flow analysis suggests that the swap event prevented the purchase of 1,374 garments (1,717*0.8). However, this number is only indicative, and further, from the question posed it is unclear whether the substituted garments would have been new or pre-owned.

Wardrobe composition

Finally, the 15 wardrobe audits conducted among swap participants are compared to a baseline sample taken from Vermeyen et al. (2025). Figure 3 plots for each participant their total wardrobe size against the fraction dormant and the fraction pre-owned, respectively. The mean of each variable for each sample is also shown. It should be stressed that the results presented here are very preliminary and part of ongoing research. Due to the small size of the swap sample caution is advised in interpreting the results.

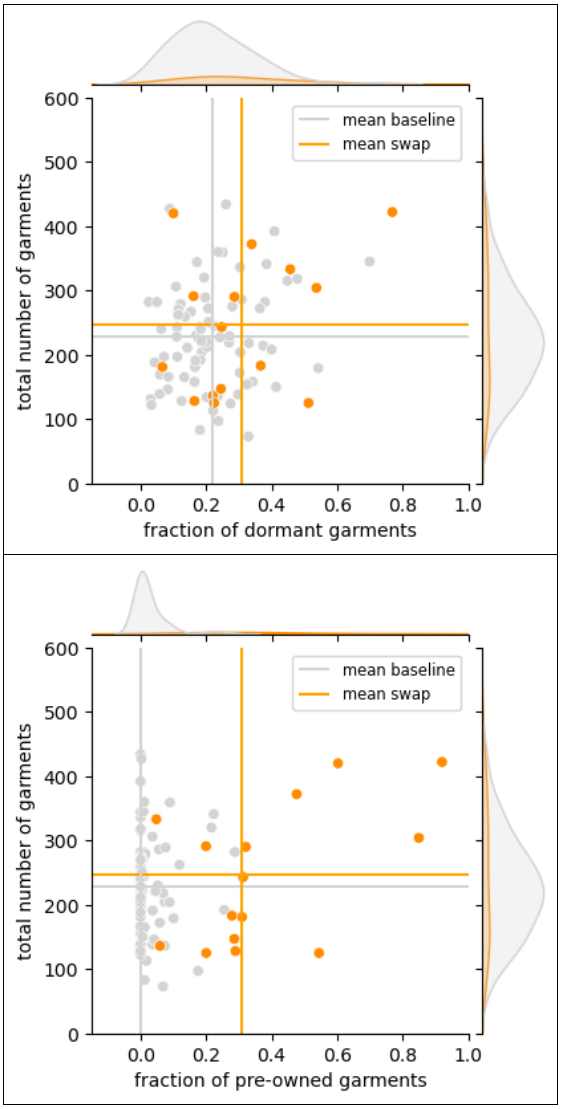

Figure 3. Total wardrobe size vs [1] fraction dormant, and [2] fraction pre-owned, for the baseline sample (n=78) and swap sample (n=15).

A wide variation is observed between individuals in the swap sample. With respect to total wardrobe size, no notable difference between the baseline sample and swap sample is observed. For the fraction of dormant garments, swap participants seem to have a slightly higher average. This is contrary to expectations, as respondents indicated in the survey they specifically selected dormant garments to hand in at the swap event. Lastly, participants in the swap sample have a notably

higher fraction of pre-owned garments in their wardrobes.
The differences between the swap and the baseline sample cannot be solely attributed to participation in swap events, as these individuals likely also engage in other reuse practices, such as secondhand shopping. Rather, the swap sample offers specific insight into the wardrobes of those actively involved in clothing reuse. Hence, the audit results provide a valuable glimpse into the potential outcome of successfully increasing clothing reuse in society on our wardrobes. It indicates to what extent active participation in reuse can be expected to increase the pre-owned fraction in wardrobes, while having a minimal effect on the amount of dormant clothing or overall wardrobe size. This information is crucial to designing effective policies in the transition to a circular and sustainable clothing system.

Limitations and future research

This paper presents the findings from a specific swap event. As noted in the literature review, swaps vary in form, so the results should not be generalized without caution. The online survey and wardrobe study involved a small, self-selected sample, so their findings should be interpreted carefully. Increasing the sample size, conducting qualitative interviews and applying statistical methods can bring further insight into the data. The research will be elaborated on in future swap events.

Conclusions

By combining different qualitative and quantitative methods to study a clothing-swapping event, this research provides a deeper understanding into the dynamics of clothing swaps, garment reuse and reactivation. The mass flow analysis revealed that about half of the garments brought to an in-person swap using an indirect exchange system found new owners. Certain garment types (t-shirts and sweaters) are more easily swapped than others (pants). The survey responses indicated that participants use swaps to hand off dormant clothing that is no longer suited to their needs. They were often not the first owner of the donated garments themselves, indicating that the swap functions as a reuse circuit, where garments are repeatedly exchanged. To a lesser extent, they acquired new garments that better suited them, stating that eight out of ten swapped garments would replace the purchase of garments. When comparing the composition of the wardrobes of 15 swap participants to a general sample, we found that the swappers have a similar wardrobe size but a much higher fraction of pre-owned garments. Further, the swappers had a slightly higher fraction of dormant garments. This comparison provides an important glimpse into the potential effects policies focused on increasing garment reuse may have on our wardrobes.

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