



COLLABORATIVE FASHION CONSUMPTION: DIGITAL RESALE PLATFORMS AND EU POLICY IMPLICATIONS

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This paper examines collaborative fashion consumption as a transition from ownership-based consumption to access- and reuse-based models, with emphasis on brand-led digital resale platforms. It synthesises key mechanisms (resale, rental, swapping) and analyses platform requirements for trust and operational viability, including product authentication, dynamic pricing, reverse logistics, and consumer engagement strategies. The study further situates resale within the evolving EU regulatory landscape, highlighting the implications of the Ecodesign for Sustainable Products Regulation and the emerging compliance expectations around product information, consumer rights, and substantiated environmental claims. The paper concludes with design and governance priorities for scalable circular fashion ecosystems.

Keywords. Collaborative consumption; circular fashion; resale platforms; reverse logistics; Digital Product Passport; EU textiles policy.

INTRODUCTION

Collaborative consumption (CC) is far from a mere transitory trend; it represents a fundamental paradigm shift within the fashion industry [1]. It marks a definitive transition from a linear model predicated upon ownership to a circular framework rooted in access [11].

The primary dimensions of this evolution, as examined through the lens of contemporary academic research, are as follows:

1. The Reconceptualisation of Value: From Ownership to Utility

The conventional 'take-make-dispose' model is increasingly being superseded by *Collaborative Fashion Consumption (CFC)*, a paradigm that prioritises utility over the traditional notion of possession. Access over ownership: consumers—most notably amongst the Gen Z and Millennial cohorts—increasingly favour the 'hiring' of sartorial experiences, such as occasion-specific rentals or daily subscriptions, rather than the mere accumulation of physical goods. *Life-cycle extension*: through resale, swapping, and rental, the lifespan of a garment is significantly prolonged, thereby curtailing the requirement for virgin production and mitigating textile waste.

2. Economic Impact and Market Dynamics

Recent empirical data indicate an exponential growth within this sector, frequently outstripping the expansion rate of the traditional fashion market [7]:

The resale market: projections suggest that the global second-hand trade will reach approximately \$53.7 billion by 2026, maintaining a compound annual



growth rate (CAGR) exceeding 11% through to 2036. Online rental: this segment is forecast to attain a valuation of \$2.11 billion by 2026, offering a robust, sustainable alternative for occasion-wear and luxury apparel. Profitability through Innovation: the deployment of digital platforms and Artificial Intelligence (AI) for rigorous product authentication and algorithmic pricing is finally rendering these circular business models profitable at scale.

3. Sustainability as an Ethical Imperative

From a scholarly perspective, collaborative consumption is regarded as a pivotal solution to the industry's ecological footprint, which is responsible for an estimated 7.6% to 10% of global greenhouse gas emissions. Waste mitigation: CC contributes directly to the reduction of textile volumes destined for landfill—a critical intervention, considering that approximately 14 million tonnes are discarded annually in the United States alone. Resource conservation: the systematic reuse of garments significantly diminishes the consumption of water and energy required for the manufacture of virgin fibres.

4. Challenges and Critical Barriers

Despite the upward trajectory of this trend, contemporary research identifies several formidable obstacles. Hygiene and quality provisos: consumers frequently articulate concerns regarding the sanitary standards of rental attire or the physical degradation of pre-owned items. Logistical complexity: the exorbitant costs associated with reverse logistics, specialised cleaning, and inventory management within 'Resale-as-a-Service' frameworks remain a substantial barrier to long-term fiscal viability. Psychological determinants: whilst 'fashion leadership' (the drive to remain avant-garde) serves as a catalyst for rental, entrenched materialism remains negatively correlated with the propensity to adopt collaborative consumption models.

PURPOSE

The aim of this work is to identify the main mechanisms of collaborative consumption in relation to the fashion industry and to analyse existing digital platforms for the development of this trend.

RESULTS AND DISCUSSION

A digital resale platform is not merely an e-commerce extension; it is a complex technological ecosystem that must balance consumer trust with logistical efficiency. A comparative case study between a brand using the Peer-to-Peer model (e.g. Ganni) [9] and one using Buy-back (e.g. Patagonia/Worn Wear) [10] was conducted.

From an academic point of view, the comparative study between Ganni (Peer-to-Peer model) and Patagonia (Buy-back/Resale model) gives a clear perspective on how the logistics infrastructure and brand values determine the efficiency of the circular economy. The following is a structural and operational analysis of a successful platform for a mainstream brand:

Platform Structure (Digital Architecture)

A robust platform must integrate three essential components:

✓ Customer front-end: a dedicated section where second-hand products are presented with the same visual aesthetic as new arrivals.



✓ Seller portal: an intuitive module allowing users to list a product by simply scanning a barcode, which auto-populates descriptions and material compositions from the brand's historical database.

✓ Back-end tracking: integration with Digital Product Passport (DPP) systems to verify the authenticity and provenance of the item.

Modus Operandi (Operating Models)

Two dominant models exist, each offering specific strategic advantages:

✓ Peer-to-Peer (P2P): the seller dispatches the product directly to the buyer. The brand acts solely as a guarantor and facilitator (akin to *Vinted*, but under the proprietary brand umbrella). This offers maximum efficiency but minimal control over final quality.

✓ Buy-back / Consignment: the customer returns the garment to the brand in exchange for a voucher. The brand manages sanitisation, photography, and resale. This ensures total control over the brand experience, albeit with higher logistical costs.

Operational Efficiency (Maximising Throughput)

To ensure financial viability, the platform must optimise:

✓ Dynamic pricing algorithms: software should suggest price points based on current market demand, garment condition, and collection age.

✓ Reverse logistics: utilising physical retail outlets as "Drop-off points" to mitigate courier costs and drive footfall into brick-and-mortar stores.

Promotion Strategy (Engagement & Conversion)

Marketing efforts must combat the stigma of "pre-worn" items and highlight ethical benefits:

✓ Narrative marketing: "*Every piece has a story.*" Promoting product durability through testimonials from previous owners.

✓ Incentivising circularity: offering bonus loyalty points to those who choose to purchase 'pre-loved' or sell their archival items.

✓ Social proof & gamification: digital badges for customers who have saved a specific volume of water or CO2 through their platform transactions.

From an academic perspective, the European Union is implementing a substantial package of circular-economy measures that will shape how resale ecosystems are designed and governed [2–6]. For brands, regulatory readiness is increasingly a strategic capability rather than a purely compliance exercise.

1. Digital Product Passport (DPP) under the ESPR framework

The Ecodesign for Sustainable Products Regulation (ESPR) establishes the framework for a Digital Product Passport, with product-specific requirements to be introduced via delegated acts for relevant product groups [4].

Implication for resale: brands should build product-data architecture that can interface with passport requirements when applicable—supporting structured information such as composition, care and repair guidance, provenance attributes, and other circularity-relevant data. In re-commerce, this can strengthen authentication, improve grading, and reduce information asymmetry in both P2P and buy-back models.



2. Extended Producer Responsibility (EPR) for textiles and footwear

The revised Waste Framework Directive requires Member States to establish EPR schemes for textiles and footwear within a defined implementation period.

Implication for resale: EPR will increase the economic importance of reuse and take-back pathways. Where fee modulation is applied nationally, demonstrable durability, repair, and reuse performance may be reflected in lower fees, making buy-back and structured resale programmes strategically relevant rather than optional.

3. Environmental claims and anti-greenwashing enforcement

EU policy is moving towards stricter substantiation and verification of explicit environmental claims. The Green Claims initiative (as negotiated in EU institutions) envisages verification of claims and penalties that may include fines linked to turnover.

Implication for resale: if a platform communicates quantified savings (e.g., water or CO₂), the brand must be able to evidence the methodology and assumptions transparently; otherwise, claims become a legal and reputational risk rather than a marketing asset.

4. Consumer rights and legal guarantees in resale models

A practical distinction exists between P2P facilitation and a brand acting as a professional seller. In P2P, consumer-sales guarantee rules often do not apply in the same way as business-to-consumer transactions; however, platform governance (dispute handling, transparency, anti-counterfeit measures) remains essential.

In buy-back/brand-resale models, the brand typically becomes the “trader” and consumer-sales rules apply; for second-hand goods, EU rules allow a shorter liability period only if agreed, and it must not be shorter than one year.

5. Data protection and platform governance (GDPR and DSA)

Resale platforms frequently link original purchase data with new buyer profiles, raising GDPR requirements around purpose limitation, lawful basis, retention, and transparency. The Digital Services Act (DSA) adds governance duties for online platforms, including mechanisms to address illegal content (e.g., counterfeits) and improve accountability in digital marketplaces.

CONCLUSIONS

Collaborative fashion consumption is best understood as systems shift: value creation moves from unit sales and ownership to garment utilisation, re-circulation, and service provision. Within this shift, digital resale platforms function as enabling infrastructure rather than a “marketing add-on”, because they must operationalise trust (authentication and provenance), manage quality and hygiene expectations, and control the costs of reverse logistics and re-commerce operations. The transition to resale in the EU is not just a marketing move, but a preparation for mandatory compliance. Brands that implement these digital structures (DPP) now will have a huge competitive advantage over those that will be forced to do so under the pressure of sanctions in 2027-2028.



REFERENCES

1. A European agenda for the collaborative economy COM (2016) 356 final / <https://eur-lex.europa.eu/> (Accessed: [05.03.2026]).
2. EU Strategy for Sustainable and Circular Textiles (2022) (COM/2022/141 final) / <https://eur-lex.europa.eu/> (Accessed: [05.03.2026]).
3. Circular Economy Action Plan (COM/2020/98 final) / <https://eur-lex.europa.eu/> (Accessed: [05.03.2026]).
4. Ecodesign for Sustainable Products Regulation (ESPR), Digital Product Passport (DPP). EUR-Lex - Regulation 2024/1781 / <https://eur-lex.europa.eu/> (Accessed: [05.03.2026]).
5. Revised Waste Framework Directive enters into force to boost circularity of textile sector and slash food waste / https://environment.ec.europa.eu/news/revised-waste-framework-directive-enters-force-2025-10-16_en (Accessed: [05.03.2026]).
6. Digital Services Act / <https://eur-lex.europa.eu/EN/legal-content/summary/digital-services-act.html> (Accessed: [05.03.2026]).
7. Online Clothing Rental Market Report 2026 / <https://www.thebusinessresearchcompany.com/report/online-clothing-rental-global-market-report> (Accessed: [05.03.2026]).
8. The operating system for resale / <https://getcircular.ai/> product (Accessed: [05.03.2026]).
9. Digital platform–brand Ganni/ <https://www.ganni.com/> (Accessed: [05.03.2026]).
10. Digital platform–Patagonia/<https://www.patagonia.com/>(Accessed: [05.03.2026]).
11. Scripcenco, A., & Pashkevich, K. (2020). From linear to circular fashion: is it new trend or necessity? *Актуальні проблеми сучасного дизайну*. Київський національний університет технологій та дизайну. <https://er.knutd.edu.ua/handle/123456789/16160> .
12. Scripcenco, A. (2025, April). Circular fashion: development competencies among university students. *Актуальні проблеми сучасного дизайну*. Київський національний університет технологій та дизайну. <https://repository.utm.md/handle/5014/33384>
13. Scripcenco, A., & Graur, I. V. (2024, October). Redesign, reuse and 3D prototyping as efficient approach of sustainable fashion. *KyivTex&Fashion*. Київський національний університет технологій та дизайну. <https://repository.utm.md/handle/5014/31945>
14. GRAUR, Ionela-Vlada, et al. APPLICATION OF THE PRINCIPLE OF SUSTAINABILITY IN DESIGNING A GARMENT COLLECTION FOR WOMEN. *Innovative Textile Materials and Processing*, 2025, 257. . <https://repository.utm.md/handle/5014/29916>
15. Scripcenco, A., & Borș, A. (2024, October). Manufacturing reversible clothes as a modern approach for sustainable fashion. *KyivTex&Fashion*. Київський національний університет технологій та дизайну. <https://repository.utm.md/handle/5014/31946>