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The Role of the Graphic Industry in Extending Garment Lifespan

ABSTRACT

The overconsumption of fast fashion products and hyper-production cycles are considered as significant causes of the increasing amount of textile-related municipal solid waste (MSW). The textile industry is recognized as a substantial contributor to global greenhouse gas emissions, with varying contribution estimates (up to 10%). Systemic solutions and circularity are predominantly proposed, acknowledging that long-term regulations often lead to large-scale implementation of circular economy. This paper aims to explore the contribution of the graphic industry to textile reuse. With that in mind, the 45 studies were chosen for the review based on their emphasis on reusability, in order to gain insight into the possibilities for a person involved in the graphic industry to aim for sustainability regarding textile consumption. Furthermore, this summarization of knowledge may contribute to raising awareness among students and young people through potential workshops focused on the creative reuse of textiles, in order to encourage them to incorporate the principles of reusability into their future projects and workplaces. In the textile industry, reuse is advised as a preferable solution compared to textile recycling and is presented in literature as an extension of the garment's longevity, mainly through collaborative consumption and sharing systems (bartering and lending). The European Union is marked as the leader in terms of textile reuse, with the percentage of textiles reused of around 18%. Serbia, on the other hand, generates roughly 90 000 tons of textile waste per year, and about 81 000 eventually end up in landfill. These findings served as the motivation for conducting this study, with the aim of exploring the potential contribution of the graphic industry to prolonging garment lifespan and promoting textile reuse.

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KEY WORDS
Sustainability, textile reuse, upcycling, circular economy, graphic industry

1. Introduction

In 2024 in a joint report, ZSL (Zoological Society of London) and WWF (The World Wide Fund for Nature) warned that what we do in the next 5 years (until the year 2029) will determine the future of all life on planet Earth (WWF, 2024). They pointed out that “we” have 5 years to redirect the world towards sustainability before the impact on the environment and climate change lead to irreversible consequences that they consider nearly unimaginable. It may be implied that by “we”, they are not relying on their organizations only, so in this paper we consider ways for us to contribute as well, dominantly in the field of the graphic industry. The WWF suggested that all countries should develop and set in motion nation-wide plans that would include reducing excessive energy usage and greenhouse gas emissions. Investments in the public and private sector are recommended so that the chosen policies would be enacted in the largest possible scope.

Furthermore, certain efforts are being made in order to raise awareness and to educate people about recycling and reduced energy consumption. Although the interest of the general public for recycling has grown, it is considered that in the absence of decisive policies,

it would probably be impossible to avoid a scenario of increased prices of energy, water, raw materials and manufacturing costs. Additionally, approaches established in the 20th century are considered not sustainable enough to satisfy the necessities of the 21st century. Because of that, it is believed that the concept of sustainable growth is the fundamental part of the economic and environmental policies (Chavan, 2014).

In order to understand excessive consumer needs and necessities, the concept of consumerism will be discussed. Consumerism is believed to have its roots in the 18th century but it has reached its current potential in the past few decades, during which both the consumption and discarding of products have increased, to the extent that pleasure and social acceptance is evaluated through consuming (Assadourian et al., 2010). The authors state that:

> *Like a tsunami, consumerism has engulfed human cultures and Earth's ecosystems. Left unaddressed, we risk global disaster. But if we channel this wave, intentionally transforming our cultures to center on sustainability, we will not only prevent catastrophe but may usher in an era of sustainability - one that allows all people to thrive while protecting, even restoring, Earth.*

In their book, Assadourian and associates do not treat enjoyment and engagement as distinct concepts and by using the verb "thrive" they do not focus on any particular dimension of human flourishing, whether financial, ecological, political, or otherwise, instead choosing to leave the phrase open to interpretation by distinguished value systems. Moreover, consumption represents the intermediary, middle-men between identity and values (Ekström & Salomonson, 2014). In their book "Work, Consumerism and the New Poor", author Zygmunt Bauman points out that consumption has replaced labour as the main determinator of social status (Bauman, 2005).

Clothing, apparel and other textile products are marked as elements of symbolic consumption, where people are often under the influence of others while also wishing to consequently be perceived as authentic individuals. In addition, negative aspects of consumption are pointed out, mainly regarding products that are mass produced and purchased in unnecessary quantities (Paço et al., 2020). When making clothing purchasing decisions, consumers rarely take into consideration the impact their actions have on the environment (Hiller Connell, 2010).

Nevertheless, we shouldn't overlook those who adopted different kinds of environmentally responsible behaviours when shopping for clothes.

One should consider whether this behaviour is a privilege for them and whether or not they are renouncing other things in life because of their beliefs. It should also be considered whether they are motivated by internal or external factors. An important aspect of consumer culture regarding textile is the throwaway spirit which can be attributed to a range of factors, including practical ones such as inappropriate clothing size or a lack of storage space, as well as changes in taste or in current clothing trends and the lack of information regarding recycling (Domina & Koch, 2002).

The clothing disposal behaviour bears a significant importance, considering that consumers usually have the autonomy in deciding whether, when and how they dispose of their unwanted clothing, which impacts the amount of created textile waste, the lifespan of the clothing, and the possibility of its reuse and recycling (Laitala, 2014). Additionally, the insufficient storage space and the need to buy new clothing items are recognized as the main motives for certain consumer behaviours (Ha-Brookshire & Hodges, 2009). The fast fashion tendency relying on throwing clothes away after a short period causes impacts to the environment, public health and the economy (Shirvanimoghaddam et al., 2020). Even after embracing the throwaway spirit, consumers can still choose to get rid of their unwanted garments altruistically, by donating them to charity organizations or members of the community in need.

Unlike the linear clothing consumerist model which usually ends in throwing garments away, the circular model is designed to ensure the continuous circulation of resources through repeated cycles with the aim of maximizing their potential for reuse (Bukhari, Carrasco-Gallego & Ponce-Cueto, 2018). Circular economies are not only focused on the amount of waste that ends up in landfills, but also towards establishing a system of deeper synchronicity with natural cycles (Dubey et al., 2019). Furthermore, a circular economy can contribute to community well-being by creating job opportunities and improving existing working conditions, but also by promoting equality and transparency (Ramírez-Escamilla et al., 2024). The importance of including consumers into the whole process by explaining the value of their old clothing that still has usage potential, thus raising collective awareness and nurturing responsible behaviour in consumption are also proclaimed.

The growing awareness of sustainability is reflected in the way consumption and production are approached. Moreover, an increased interest for collaborative consumption among consumers is noticed and among companies as well, as some of them raise awareness on the need for the production of environmentally friendly products (Wagner & Heinzel, 2020). It is concluded that consumer attitudes towards products made in-line with the guiding principles of a circular economy are mostly positive.

Regarding this, one might hypothesize a scenario (Paço et al., 2020) in which all new clothing would be made almost entirely using existing textiles, since the materials such as cotton and polyester can be recycled multiple times and for multiple purposes (Juanga-Labayen, Labayen & Yuan, 2022). Companies have recognized the need to reduce textile waste followed by rising consumer awareness. It is believed that consumers have a significant part in encouraging awareness, which is confirmed by the EU Textile Strategy, in which consumers are recognized as the 4th most important of the "12 core aspects of textile circularity" (EURATEX, 2020):

> *Consumers shall choose what is best for them and the environment. We need educated responsible consumers matching consciousness when purchasing.*

Apart from consumers and companies, governments also share a significant part of the responsibility (Paço et al., 2020). With the goal of reshaping behaviour patterns of textile overconsumption and reducing textile waste, environmentally and financially sustainable long-lasting country-wide programs are recommended (Ekström & Salomonson, 2014). The United Nations have adopted 17 goals and 169 targets in order to encourage countries to prioritise environmental protection and sustainable development and for clothing companies to promote sustainable production models and social responsibility (Abbate et al., 2024). Additionally, the European Commission has announced in 2015 that a circular economy is one of the most important political directions of the EU and that state subsidies should be redirected towards reducing the initial costs of investment into circular business models (Jia et al., 2020).

The French government is questioning the producer responsibility through their Extended Producer Responsibility system (EPR) which requires contribution of textile producers to the management of textile products, including collection, sorting, reuse and recycling (Sandin & Peters, 2018). The French model can be considered as an example for other countries (Bukhari, Carrasco-Gallego & Ponce-Cueto, 2018). Moreover, they have introduced eco taxes, which producers or vendors pay to non-profit organizations like ReFashion for managing textile collection, although they also have been directly fined for not meeting certain goals and targets (Bueno, 2026). As a reason for not meeting their goals, among others, they pointed to the oversaturation of African markets with textiles exported from Western European and Asian countries.

Consumers generally express an interest in environmentally friendly and sustainable consumption, yet their intentions may be hindered by practical challenges, such as higher prices and less comfortable materials. This discrepancy contributes to the gap between consumers' environmental aspirations and their actual consumption practices.

Study participants (Janigo & Wu, 2015) have pointed out the positive experiences in redesigning clothing and design planning. Additionally, they have emphasized the comfort regarding second-hand clothing. On the other hand, it has been partially confirmed that practicality is their main concern, even when participants stated that they prefer second-hand clothing over newer ones.

In other words, even among participants with a high level of environmental awareness, their willingness to invest time and effort in something that does not offer immediate benefits remains uncertain. Furthermore, the connection between the need for instant gratification and the fear of missing out (Noor & Fatihat, 2025) regarding textile reuse and recycling requires further research.

The aim of this paper is to explore the environmental impact of the textile industry and waste and concepts of textile reuse and upcycling, and investigate how knowledge and practices from the graphic industry can contribute to extending the garment lifespan. To address these aims, 45 studies were analysed as part of a mini review examining textile reuse and the potential contribution of the graphic industry.

2. Methods

To address these previously mentioned objectives, the existing literature was reviewed with particular attention given to studies examining the environmental aspects of the textile industry and textile waste, as well as their connections to the graphic industry. The methodology employed in this review involved identifying relevant literature through searches conducted in Scopus and Google Scholar, screening the retrieved studies and selecting those that were subsequently analysed and taken into consideration. These databases were selected with the aim of primarily identifying peer-reviewed publications.

However, the fact that the study was peer-reviewed or not wasn't an excluding factor. The inclusion criteria focused on publications available in the English language, however, studies from any geographical scope were considered. Reports published by prominent organisations were also included, while theses and dissertations mostly weren't included as they were recognized as more relevant to the future workshops.

Furthermore, studies focusing primarily on chemical and mechanical textile recycling were excluded, as the paper primarily focuses on textile reuse and upcycling. Studies revolving around artistic practices or garment tailoring were also excluded.

Additionally, relevant studies identified while screening the reference lists of other publications were included. The literature search employed Boolean search strings, following methodological approaches and key phrases similar to those used by Sandin and Peters (2018), with additional search terms related to the graphic industry, including printing, dyeing, digital technologies, artificial intelligence, and other relevant processes or technologies.

3. Results

A total of 45 studies were selected for the review and attention was given to a state-of-the-art overview of the field, with an emphasis on recent research and emerging technologies. Accordingly, 32 of the selected studies (71.11%) were published between 2020 and 2026, indicating that the majority of the literature reflects relatively recent points of view. In terms of publication type, journal articles constitute the largest share, accounting for 82.22% of the total number of publications. The remaining publications include books, reports and conference papers (2), thesis and web page article (1). The majority of the selected publications were published by publishers including Elsevier, Taylor & Francis, SageJournals, MDPI, Wiley and Springer. From a geographical perspective, publications originating from European countries are particularly relevant due to the geographical and cultural proximity of these countries to the authors' country. The distribution of the selected publications by type is presented in Table 1. The distribution of studies by year is presented in Table 2, which shows the number of publications published each year and their proportion of the total literature. The selected literature can be divided into two thematic areas. The first group of studies focuses primarily on the environmental aspects of the textile industry, textile waste, reuse, and circular economy principles. The second group includes studies addressing the relationship between the textile and graphic industries, either directly or indirectly, including the application of graphic technologies, printing, dyeing and related digital technologies.

Table 1

The distribution of the selected studies by type

Type	Number of studies	Percentage of total studies
Journal Article	37	82.22
Book	2	4.44
Report	2	4.44
Conference Paper	2	4.44
Thesis	1	2.22
Web Page Article	1	2.22
Total	45	100

Table 2

The distribution of the selected studies by year

Year	Number of studies	Percentage of total studies
2002	1	2.22
2005	1	2.22
2009	1	2.22
2010	2	4.44
2014	3	6.66
2015	1	2.22
2018	2	4.44
2019	2	4.44
2020	6	13.32
2021	1	2.22
2022	4	8.88
2023	1	2.22
2024	5	11.10
2025	7	15.54
2026	8	17.76
Total	45	100

4. Discussion

In further discussion, the motives and benefits of mutual engagement and the contributions of the graphics industry, mostly through textile printing and contributions of digital technologies towards sustainability will be considered. A person's intent to behave in a certain way is heavily influenced by cognitive, social, and personal factors. Social factors are considered the most important when analyzing behaviour that can be described as environmentally aware and it is pointed out how extremely difficult and unlikely it is for a person to live excluded from social currents (Wu et al., 2023). Furthermore, environmentally and socially oriented initiatives find their way to individuals who are likely to be interested in them through social media and individuals who feel a strong emotional connection to their community are over time more likely to develop environmental awareness. It has been shown that people are more willing to embrace environmentally aware behaviours when those activities elicit additional satisfaction or a positive emotional outcome. This feeling might be initiated via social media by showing people different ways their donated textile is used. Social media marketers use the platform to promote a certain product, yet not every purchase has to include purchasing a new clothing piece (Mahmood & Khan, 2026).

In the paper "Crafting Wellbeing: Exploring the Link Between Textile Craft and Wellbeing", it is shown that positive emotions can be triggered by designing textiles.

Sewing, knitting and stitching are mentioned as contributing to the transformation of community members for the better and improving general community well-being. Moreover, the program's accessibility and the potential to serve as a creative, artistic outlet which does not require any specific previous formal education are pointed out (McCabe & Maguire, 2026). On the other hand, the subject's frustrations while working with textiles was noticed, for example the fear of failure, stress caused by making mistakes or the difficulty of working with certain materials that are harder to manipulate. However, these frustrations have been shown to contribute to the development of sequential problem solving skills.

The importance of introducing different integrated approaches and interdisciplinarity to the students was considered in order to deepen their understanding of topics such as circularity and sustainability, both in their artistic endeavors and their professional work. Thorough research on the potentials of the curriculum integration was recommended (Mansour et al., 2020).

The contribution of textile and fashion designers was emphasized in the upcycling practice that is considered as one of the most effective ways for people with limited engineering knowledge or skills to contribute (Jiu & Sethi, 2025). Nevertheless, questions remain regarding the consumer acceptance of this type of product in the current market. Posters with recycled clothing were designed (Yin, 2024).

Artistic practices that include reusing textile waste in order to create art pieces were also mentioned, followed by warnings of certain dangers that can arise from inadequate handling of textile waste (Tusaasiirwe, Kwesiga & Njeru, 2025). However, the findings suggest a link between environmental awareness and both the interest in learning about upcycling practices and the willingness to purchase upcycled garments (Bhatt, Silverman & Dickson, 2019). The process of mutual clothing upcycling was explored, as study participants pointed out that previously used or second-hand garments did not cause them any discomfort and were mostly satisfied with the results, stating that they would gladly wear their upcycled products for at least two more years (Janigo & Wu, 2015). Around 52% study participants believe that the process should be promoted as a social experience.

The upcycling process was labeled as a practice that includes different kinds of engagement compared to a tailor's corrections. The acceptance rate of upcycled products by the consumers and the market for them was previously mentioned. Apart from that, quality control becomes significantly more difficult, as quality control systems are generally designed to minimize unexpected outcomes. It is advised that the criterion for quality control should subsequently be redefined when applied to upcycling products (Senevirathne & Kinkini, 2026).

Furthermore, the future clients and consumers expectations influence the market needs along with the specifications and production standards. The reuse and upcycling practices may complicate the production process instead of simplifying it at first. The success of innovative approaches is closely tied to the consumers' perception of a product and the quality of a product is often equated with uniformity (Senevirathne & Kinkini, 2026).

The discovery of mauveine in the 1860s by Henry Perkin marks the rise of synthetic dyes that surpassed the natural ones that dominated the textile industry up until the 19th century, due to their lower price, repeatability and higher affinities towards textiles (Mansour et al., 2020).

The estimated amount of 70 million tons of synthetic dyes are produced each year, with 280.000 tons being released into wastewater, while the textile industry itself utilizes around 10.000 tons every year. Most of the synthetic dyes contain mercury, cadmium, lead and arsenic.

Interest in the use of natural dyes is emerging due to the rising awareness and strict policies (Lara, Cabral & Cunha, 2022). The materials gathered for natural dye extraction are the peelings of beet, Indian fig and ficus leaves as representatives of red, yellow and green pigment, respectively. Optimal conditions for performing the extraction and separation are required, followed by utilization of the appropriate solvent for leaching the pigments out of the plants. To determine the optimal conditions, researchers varied the concentrations, temperatures, pH values and time intervals, in order to achieve consistent and repeatable fabric colouring.

The textile dyeing process is considered a significant water-pollution contributor, accounting for 17-20% of the total water pollution caused by the textile industry. Utilizing pigments extracted from microorganisms, bacteria and fungi, and the production of indigo pigments using Escherichia coli in fermentation reservoirs was considered, resulting in production benefits such as variety of hues and low costs due to the bacteria proliferation (Lara, Cabral & Cunha, 2022).

Researchers have attempted extracting a black pigment from post-consumer textile and plant waste for the purpose of dyeing cotton and their outcomes were compared to those of a conventional black pigment (Iftikhar, Mohsin & Khan, 2026). Pomegranate crust, walnut leaves, coffee sediment and Aleppo pine bark were utilized in a creative process that resulted in the clothing collection called "Hamadryad" inspired by Greek mythology (Gencal Öztürk & Sünter Eroğlu, 2026).

Additionally, around 15-25% of custom mixed screen printing inks remain unused, mostly due to the overestimation and limited possibilities of its reuse, followed by the disposal of garments with unintended printing results.

Abandoning the norm that revolves around rejecting the product due to irregularities or inconsistencies is recommended as a part of a larger paradigm shift that praises designer's creativity in finding ways to transform those irregularities into authentic features. Screen printing is presented as a significant textile waste producer and considered as environmentally challenging, which are the main reasons why digital printing is being advocated for as a potential substitute in the long run (Kulkarni & Dedhia, 2021). However, several reasons for retaining it emerge, smaller initial investments in screen printing have the potential to mobilize unemployed individuals and students, its principles are relatively easily understood and the DIY approach can serve as a playground for textile reuse and upcycling practices.

Digital printing serves as an introduction to other digital technologies and their contribution to textile reuse. Visual prototyping and textile material mock-ups are mentioned as ways of avoiding unnecessary sample production and replacing them with virtual ones for digital evaluation. It is estimated that this approach could reduce waste produced in the prototyping phase by 70% (Cui et al., 2026).

Sorting textile materials and products has been labeled as one of the most demanding contributing processes of textile reuse and recycling since it requires identifying the textile material and sorting it into a specific category depending on certain criteria such as material type, dyeing and/or printing, the presence of buttons, zippers, previously upcycled materials... During textile identification, the morphological differences of fibers might not be distinctive enough, especially when distinguishing synthetic fibers (Baloyi et al., 2024). However, the technique of near-infrared (NIR) spectroscopy is achieving an accuracy higher than 90% when identifying cotton fiber and around 100% for polyester, polyamide, acrylic textile, silk and wool.

When it comes to communities working towards a common goal, crowdfunding practices has emerged a means of collective project financing that usually relies on internet platforms designed by UI/UX designers, developers and copywriters (Pei et al., 2022). The significance of the information and the way they are presented to potential donors and sponsors, along with visual symbols and interactivity has an impact on the success of gathering funds.

When it comes to textile reuse, digital technologies impact the forming connections between individuals who wish to throw their garment away and those who wish to gather them, via digital products such as online second-hand shops. In that case, designers and copyright workers are the ones who partially enable that connection (Nilsson et al., 2025). Additionally, utilizing online platforms and digital tools resulted in a positive effect on consumers towards previously used clothing. It is shown that 42% of study participants declared that they shop for used clothing online while up to 60% of younger participants (age group 18 to 24) displayed the same behaviour (Charnley et al., 2022). Participants pointed out the practicality of the online shopping approach and reported feeling less anxiety about personal hygiene.

Moreover, online platforms offer a clothing collection service, allowing donors to have their used garments collected directly from their addresses which solves the clothing donation impracticality problem revolving around the location of donation containers. However, the problem of trust persists as 55% of study participants (Charnley et al., 2022) point out the lack of trust towards the salesperson in-person, while only 8% place trust in both online and in-person shopping. One of the applications developed to connect sellers and buyers is "Thread Link", which is presented as using a transparent and technologically advanced donation management system relying on the concept of gamification of the process, and including the local community towards responsible clothing donation and sustainable fashion (Chiranjeevi et al., 2025).

The possibilities that tools relying on artificial intelligence bring are mostly considered in the domain of automated quality control and condition assessment of a clothing piece, textile sorting systems and textile waste reduction. However, emerging problems are insufficient datasets and the lack of trained models for these specific fields (Nisa et al., 2025).

The most prominent contributions to the automatisation of quality control, fault detection and sorting processes are deep learning and computer vision methods. Sorting is considered the phase that poses the greatest challenges for automation, considering that it is still predominantly performed manually. Manual sorting is often based on a subjective judgement, consequently resulting in mistakes (Nisa et al., 2025).

Utilizing tools that rely on artificial intelligence finds its niche in market analysis and design optimization in order to explore product longevity, user experience and waste management (Dong, Liang & Suh, 2026). We share the opinion that manual and repeating tasks are the ones that should be delegated or outsourced, not the creative aspects of a job.

The challenges regarding the integration of AI-based tools are mentioned in a form of the availability of datasets which have to be specially designed for the task at hand ensuring a balanced representation of the different classes in the training dataset (Nisa et al., 2025). Precise labeling and listing of details on the given material or fabric gathered for model training is required, as the difficulties in identification and sorting are present, especially for highly reflective textile materials.

Additionally, the challenges are manifested through the process of implementation of complex hybrid systems in small recycling chains. High costs of purchasing machinery and software, the challenges of integrating new technologies and a noticeable resistance to change by the employees and their fears over losing their jobs were noticed (Glogar, Petrak & Mahnić Naglić, 2025).

5. Conclusions

The concept of reuse implies an extension of the clothing lifespan and usually finding a new owner to prolong it. This partially explains the massive garment exports from the global North to the global South. Although the underlying idea of donating surplus clothing from more affluent societies to those in need may seem beneficial, the needs of the countries and communities selected as recipients should be carefully assessed to ensure that such donations are appropriate and genuinely beneficial. With that in mind, the upcycling fashion collection "Return to Sender" by the Ugandan brand "BUZIGAHILL" emerged as a response to mass textile importing, as a way of offering the chance to purchase clothing upcycled as a result of their creativity and resourcefulness.

On the other hand, the aspect of upcycling practices that raises concerns is the subsequent complexity of the upcycled clothing pieces in a form of presence of attached stitches, patches, zippers, buckles, rivets and many more elements which potentially do more harm than good when sorting for potential recycling. The problem of mixed materials is pointed out in the literature and the importance of research on mutually compatible materials which can be processed together in order to strive towards efficiency regarding separation and recycling has emerged.

In the long run, the possibility of installing containers with sorting departments on the University of Novi Sad campus for the purpose of textile donation by students and citizens should be considered. This approach could eventually lead to exploring mechanisms and approaches to textile sorting on the campus, which has repeatedly been marked as the most challenging phase of textile reuse and recycling, further establishing the network of volunteers.

Initial assessment and eventual decision whether the piece is adequate for selling online, donated to charity or used in upcycling workshops would be entrusted to trained volunteers. The approach requires estimation whether it is worth the effort and can it truly make a difference.

A holistic approach to textile recycling and reuse should be considered, having in mind that such an approach is difficult to implement fully from the get go.

The transition towards more circular practices is a time consuming process that involves adaptation and development of new habits. In its initial stages, sorting, reuse and upcycling may have limited impact and even seem counterproductive. However, developing these practices over time is very beneficial for establishing sustainability and circularity in the long run. For this reason, it is particularly important to determine the level of interest in such practices among students, young people and citizens of Novi Sad, Serbia. Understanding their attitudes and perception towards second-hand and donated clothing and their willingness to engage in sorting and donation practices can provide valuable insight into the potential for developing a more circular approach. Equally important is identifying the degree of distrust or reluctance towards such practices, including the barriers that may prevent people from adopting them in the first place.

To achieve that, the people who already practice circularity and awareness should be identified in order to find out about their habits and occupations and how to approach them, to find out whether these ideas could receive support from the local government and if there is any possible financial aid for this type of project. It is also important to find out how many citizens might be interested in buying garments that have been renewed by upcycling practices. The interest of the members of the graphic industry in contributing and finding volunteers who would contribute in their own creative ways should be assessed.

Potential buyers of upcycled clothing should be surveyed in order to find out how they would perceive the potential modifications and be aware of students' opinions on reused clothing. Appropriate methods for approaching those in need should be considered, along with how social media might help the visibility of such projects. Additionally, ways of gaining trust and support of our community and subsequent guidance towards donating or even actively participating should be considered.

The challenges associated with work allocation and logistics in volunteer-based initiatives should be assessed, along with the potential for textile industry companies to offer incentives to individuals who donate their clothing. In light of modern trends, the act of donating and participating in workshops might be gamified in order to maintain both individual and collective engagement, particularly among younger people.

The need to answer some of these questions is the need to abandon the paradigm which centers on optimization and automatization exclusively, and replace it with an approach that explores the values of our fellow citizens, students, donors, volunteers, workshop members, graphic and fashion designers, local news agencies, and all of the values that shape our production processes and artistic practices.

"This year's State of the World report is a cultural mindbomb exploding with devastating force. I hope it wakes a few people up."
Kalle Lasn

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