

Implications for Transitions to Sustainable Consumption: Finding Millennials' Behaviour Archetypes

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TRANSITION to a more sustainable consumption continues to be a challenge. In this paper, we explore socio-cultural conditions as a basis for proposing a radically different way of scaffolding the consumption of reacquired (second-hand) goods among millennials. In-depth interviews with fifteen young people, aged sixteen to twenty-seven, were conducted to uncover their lifestyles and aspirations, as well as existing practices concerning acquisition and disposal of consumer goods. The analysis revealed that all participants experienced their lifestyles as transient. Having that in common, we found three distinct consumer behaviour archetypes that guided their consumption practices: *Spirited Nurtured Dwellers*, *Busy Frugal Nomads*, and *Steady Independent Movers*. Identification of archetypes and their characteristics opened novel opportunities for the design of a future digital service that caters to each archetype and provides for positive frictions between them. Finally, we outline how our findings relate to the transition design framework that guided our research.

Keywords: *transition design; sustainable consumption; consumption behaviour archetypes; social practice; local communities*

1 Introduction

Digital technologies are readily designed, developed, integrated, and employed as a means of meeting growing global challenges. Among those challenges, social ones are increasingly visible, leading to the fast spread of technologies for social innovation, motivated by the desire to meet changing social needs. Even so, digital technologies that are presently available still showcase results of traditional information technology development pathways, often missing deeper entanglements with socio-cultural matters. Therefore, mitigating complex challenges with socio-cultural roots, such as the challenge of overconsumption among millennials that is addressed in this paper, calls for an alternate, design-led approach.

Design, interpreted ontologically, as an ongoing interaction between understanding and creation, finding and making (Owen, 2007), a conversation about possibilities, also shifts the understanding of what is designed: "... every tool, every technological solution becomes ontological in the sense that, however humbly or minutely, it inaugurates a set of rituals, ways of doing, and modes of being (Escobar 1995). It defines what it is to be human" (Escobar, 2018, p. 110). In other words, humans and their tools are mutually co-shaped.

Recently, the emerging transition design is gaining traction as an alternative to traditional means of designing (Escobar, 2018; Irwin, 2018; Tonkinwise, 2015). Although still mostly a theoretical and political proposition, transition design is a promising approach that explicitly considers sustainable and forward-looking design, envisioning more desirable futures than the probable ones should the traditional technology design approaches persist. Avoiding short term solutions, and unsustainable development is especially relevant for social innovation, where the typical for-profit nature of innovation combined with techno-enthusiasm, continues to leave little space for broader integration of the socio-cultural and sustainable perspectives. Therefore, understanding how to apply transition design to design of digital solutions for social innovation emerges as an area of relevant inquiry, to which this paper aims to contribute.

In the present paper, we describe the initial, sense-making phase of a real-life collaborative project with several large industrial partners. The project was concerned with the inquiry into the potential of peer-to-peer markets and reacquisition to mitigate overconsumption and provide mainstream, sustainable alternatives. We approached the project through transition design and focused on consumption patterns of millennials. They are about to inherit massive environmental and societal problems, with overconsumption as one of the central ones. Rather than fearing dystopian futures, some of these young people are getting engaged in creating alternatives to established consumer practices, e.g., (Peyer, Balderjahn, Seegebarth, & Klemm, 2017), but these alternatives are still far from being mainstream. An additional reason for choosing millennials is that they often become essential influencers for other age groups (Prensky, 2001; Selwyn, 2013).

Departing from the linear order of dissemination of academic results, we first published design practice outcomes, a future-oriented service for social innovation, both as an exhibit/installation showing a range of conceptual proposals and designed artefacts (Srivastava, 2017), and as an academic design research paper (Srivastava & Culén, 2018).

In this paper, we discuss the most challenging step - how to initiate and direct research on transforming the *throw-away* culture, while consistently thinking ecologically and including social, cultural and sustainability perspectives. In particular, we aimed to understand the way millennials tackle culturally embedded desire to (over)consume and the contradicting need to act sustainably. The research resulted in proposing consumption behaviour archetypes and amongst millennials and linking it to design for a transition towards decreased consumption. The behaviour archetypes are to be understood as behaviours, carried forward from deep historical roots that anchor socio-cultural norms. Thus, in contrast to the understanding of archetypes used in psychology, e.g., Carl Jung's work where archetypes are seen as invariant, we subscribe to a culturally-coded view, in line with work by (Megehee & Spake, 2012; Woodside, 2010), in which archetypes are understood as iconic representations of social meanings and behavioural norms. After discovering the archetypes, personal narratives of millennials that we worked with were anchored, and allowed for re-coding of existing views using transition design, and resulting in the future service proposal described in (Srivastava & Culén, 2018).

Methodologically, the inquiry took the form of in-depth interviews with fifteen young people aged from sixteen to twenty-seven. We inquired into their lifestyles and the relationship between lifestyles and consumption of durable consumer goods, as well as how they construct narratives around this relationship. Furthermore, we were curious about how *things*

(material possessions) shaped and supported their lifestyles, outlining at the same time their motivations, aspirations, needs and limitations.

The analysis of interviews uncovered how millennials engage in practices of acquisition, use, and disposal of everyday things. While living transient lifestyles represented an essential common thread among the participants, the practices of acquisition and disposal differed and led to the emergence of three distinct consumer behaviour archetypes: *Spirited Nurtured Dwellers*, *Busy Frugal Nomads* and *Steady Independent Movers*. A deeper understanding of consumption patterns represented by archetypes was essential for assessment of new opportunities, their alignment with principles of transition design, and ontological positioning forwards conversations regarding possible future lifestyles, featuring an increased sense of wellbeing and reduced dependence on (and motivation for) consumption of new, first-hand consumer goods.

In what follows, we first outline the background work that helped us to position and frame our research on transitioning to decreased consumption of new consumer goods among millennials. We then discuss the findings from the interviews, the behavioural archetypes and underlying dynamics and beliefs regarding acquisition and disposal of goods, and challenges related to reacquisition services. Finally, we outline implications for transition design, within the context of digital reacquisition, as a service for social innovation featuring possible trajectories for transitions regarding new lifestyles, patterns of use of everyday things, local connections, and community building.

2 Background

In this section, we provide a very brief background, divided into three parts, on the previous research and central papers that helped to shape this work: 1) transition design, 2) social practice theory, and 3) sustainable consumption patterns and practices.

2.1 Transition Design

Transition design (Escobar, 2018; Irwin, 2015; Irwin, Kossoff, Tonkinwise, & Scupelli, 2015; Manzini, 2015) advocates the re-conception of entire lifestyles, based on a deep understanding of underlying *systems dynamics*, aiming to make them *place and community based* (Escobar, 2018; Manzini, 2015). In proposing transition design, Irwin states that the success of needed, broad transformational change “*will depend upon our ability to change our ideas about change itself – how it manifests and how it can be initiated and directed*” (Irwin, 2015, p. 234). The approach, see (Irwin, 2018), forwards four main areas in which design and research activities unfold to scaffold transitions in a positive direction. These are 1) *visions* of the future, 2) finding and using the appropriate *theories of change* to build on established understandings of social transformations, 3) understanding both the internal and the external *values, influences, imaginaries, attitudes, mindset*, and finally, 4) discovering and using *new ways of designing*. The latter demands an *ecological literacy* and focus on materiality in relation to sustainability, as well as re-thinking social innovation beyond commercial interests related to new products or services. Starting from this theoretical framework, we aimed to discover real-life opportunities for place-based social innovation that scaffolds more sustainable consumption of consumer goods among millennials.

To transition from existing to local, place-based and situated consumption practices, we worked with the social practice theory as a theory of change.

2.2 Social Practice Theory

Social practice theory conceptualises human actions and the ways people conduct their everyday lives in terms of their routinised behaviours, or practices (Ingram, Shove, & Watson, 2007; S. C. Kuijter, 2014; Shove, Pantzar, & Watson, 2012; Wakkary, Desjardins, Hauser, & Maestri, 2013). In (Shove et al., 2012), the authors deconstruct practices into three constituent elements: *materials* (e.g., ecologies of things, built environments, infrastructures), *competences* (learned routines, know-how) and *meanings* (shared ideas, meanings, visions). Variations in these elements create opportunities to frame, to design, new practices - *proto-practices* (Julier, 2007; L. Kuijter, Jong, & Eijk, 2013; S. C. Kuijter, 2014).

Choosing the social practice theory as a theory of change in our transition framework allows reframing reacquisition and reuse as socially constructed proto-practices that can lead to positive change in consumption patterns. Furthermore, consumption behaviours have been previously discussed in the light of social practices, e.g., previous work (Ingram et al., 2007; Julier, 2007) has been instrumental in shaping our service proposal (Srivastava & Culén, 2018).

2.3 Sustainable Consumption Patterns and Practices

Lastly, focusing on the sustainability of consumption practices, we turn to work by Pierce and Paulos, (Pierce & Paulos, 2011), who discuss consumption and frame it as activities related to acquisition, possession, dispossession and reacquisition. The authors explored reacquisition (purchasing used, second-hand goods) in particular, as a possible pathway towards more sustainable consumption. They point to the important distinction between designing *for* or *with* communities of reacquisition, and designing *from* communities of reacquisition. The former has to do with improving reacquisition as practices by using better technologies, services, or deepening the environmental concerns. The latter, on the other hand, engages in processes and practices of reacquisition as the basis for seeking and shaping of radically different solutions. Emerging from communities, it is naturally related to social practices and justifies our choice of designing for transitions using social practice theory as a theory of change. Pierce and Paulos's rich qualitative study of reacquisition informed on the importance of values, and social acceptance. They also pointed to some important challenges with current practices of reacquisition. Furthermore, their work brought attention to the relation between dispossession and reacquisition and the importance of experientially desirable solutions for both.

In (Odom, Pierce, Stolterman, & Blevis, 2009), authors discuss dispossession and reacquisition. They focus on the meaning of things in everyday life and outline four areas of importance: engagement with things, stories and memories that things invoke, augmentation (creative ways to use things, enhancing experiences) and perceived durability and quality.

From the sustainable marketing thinking perspective, we point to the paper (McDonald & Oates, 2006) that aimed to understand consumers from the *green thinking* point of view and understand why green thinking did not take more massive proportions.

3 Method

We chose a qualitative approach, based on semi-structured in-depth interviews, aiming to 1) inquire into existing consumption practices among teens and young adults aged 16 – 27, and 2) to explore implications for transition design and alternative approaches to scaffold transitions to more sustainable consumption.

Fifteen participants (recruited by posting campus-wide announcements, and providing a small payment for the participation) were interviewed. Seven participants were male; eight were female, see Table 1. The interviews lasted for at least one hour, most taking close to two hours. They were recorded, anonymised, and transcribed. Emergent, thematic coding was used to analyse the transcribed content. The analysis started with the independent coding of two randomly selected interview transcripts by each of the authors. The emerging themes were then discussed to guide the remaining work with the content analysis.

The interviews did not focus on sustainability or transition. Rather, they focused on lifestyles of participating youth, and the existing practices of acquisition and disposal, in line with (Odom et al., 2009; Pierce & Paulos, 2011). The resulting themes were grouped into two main categories: consumers' behaviour archetypes, treated in this paper, and implication for the design of the new digital redistribution platforms aiming to re-position digital second-hand markets in line with transitional thinking, described in (Srivastava & Culén, 2019).

Table 1 Gender, pseudonyms, and the age of participants

	Gender	Pseudonym	Age
1	F	Dwelline-1	17
2	F	Dwelline-2	16
3	M	Dweller-3	17
4	F	Dwelline-4	16
5	F	Dwelline-5	16
6	M	Nomad-1	22
7	F	Nomadine-2	21
8	F	Nomadine-3	21
9	M	Nomad-4	19
10	M	Mover-1	27
11	F	Moverine-2	26
12	F	Moverine-3	24
13	M	Mover-4	24
14	M	Mover-5	24
15	M	Mover-6	26

4 Findings – Behavioural Archetypes

The analysis of participants' habitual consumption behaviours and experiences with them highlighted the transient character of their living situation as the most influential factor in shaping their consumption patterns and purchase decisions, such as buying brand new or second-hand goods. Based on these patterns, we outlined three behavioural archetypes representing the broad understanding of the nature of their living arrangements. These were named Spirited Nurtured Dwellers, Busy Frugal Nomads, and Steady Independent Movers to communicate the main lifestyle characteristics underlying the consumption behaviours.

Among the recruited participants, the youngest ones all lived with their parents, the students lived in student housing or collectives, and the oldest participants lived on their own (or with a partner). Thus, for our participants, the age and the living arrangements happened to align perfectly. This alignment is culturally conditioned. In Norway, it is less acceptable to stay at parents' home after graduating from the high school, and it is common to get one's own place after graduating with a degree from the higher education.

We now discuss the consumption patterns of each archetype in turn.

4.1 Spirited Nurtured Dwellers / Dweller Archetype

The participants in this category were all very spirited teens, nurtured by guardians who house them and (still) carry the legal and financial responsibility (as the oldest participant in the category was 17) for them. This implies that they had only a partial ability to make own purchasing decisions, especially on larger things. They were responsible for shaping their dwelling places (largely consisting of a single room) but had little or no influence on purchasing decisions for the rest of their homes. Their incomes came from monthly allowances, monetary gifts received on special occasions, or small jobs around the house, the neighbourhood, or other part-time paid work. This income allowed them to manage most non-essential purchases on their own. Regardless of the financial background of their families, all participants had some monthly income available and were motivated to make efforts to earn extra for things they desired. They were mindful of opportunities to do so.

Dwelline-1 did not hesitate to acknowledge the influence peers had on her decision to work part-time, as well as on her desires for new things.

"I just felt like I didn't have [enough] ... My parents didn't give me more money, and I felt like every single one of my friends did have many things that I also wanted. I wanted to have them, the small things like theirs. That is why I wanted to start working."

Even on a limited income, this group preferred to stay in tune with trends and was strongly inclined to purchase new, first-hand goods. With this behaviour, the *use-span* of things they owned remained shorter than their *life-span*. Yet, the nurtured dwellers exhibited very limited and selective interest in acquiring second-hand things. Given their interest in new things, and the prevailing perception that online and other second-hand markets sell things that people put there by ways of *getting rid of undesirable things*, a *discarded* inventory, their engagement with second-hand markets, digital or not, was sparse or none at all. The encounters they had with the second-hand platforms as buyers were limited to the pursuit of collector's items or hobby projects. For instance, Dweller-3 was a hobby musician and bought a drum set online. He perceived the drum set as a collector's item because the item was sold by a famous musician. As reasons for the purchase, Dweller-3 pointed to these facts, the favourable price, and the perception that the previous owner took care of the instrument unusually well. Dweller-3 and Dwelline-4 also engaged with second-hand platforms to help their family members sell things that they did not use, need, or want any longer, in exchange for keeping the earned money either partially or in full. For them, this represented the way to earn some occasional extra income. It also re-enforced their perception of digital second-hand platforms as ways to get rid of unwanted things.

When asked if they would be open to purchase of used things, Dwellers said that they could be open to it under certain conditions, but apart from Dweller-3, they did not purchase second-hand. Dwelline-2 expressed the concern that the others raised as well, regarding the *safety and trust* as part of transactions involving second-hand goods.

"I am going to university next year. I would gladly buy a used book if there were not too many scribbles and notes in it. I am open to the book purchase because the person that I would buy the book from would be a trustworthy student from the same campus I would go to"

When asked why would she trust that student, Dwelline-2 said: *"I guess it is the age. It matters a lot."*

4.2 Busy Frugal Nomads / Nomad Archetype

Beginning to move out of their parents' home in the pursuit of higher studies or work, the *Busy Frugal Nomad* archetype is characterised by participants' fairly independent, studies-focussed and financially constrained situation. The participants themselves referred to this living situation as a *student lifestyle*. They discussed their relatively self-reliant way of living with a sense of pride, responsibility, and concern with staying within a *student budget*.

"No, I don't live at home anymore and I can take those decisions on my own [what to purchase]. But when you have your own apartment [shared] and don't live with your parents, then you have to think a bit more about how you spend your money, especially when you are a student. Yeah, that's something I have to think about now", Nomadine-3 pointed out.

At this life stage, they feel that, if they want something, it is their responsibility to pay for it, although the help from parents is still acceptable (and often desirable).

"After I moved out, I have been ... I wanted to be on my own. If they [parents] want to help me, okay, but I can work with my own money", Nomadine-2 shared.

The living spaces are often of the shared type, typically own room and shared kitchen, living room and the bathroom. Participants in this group decide on furnishings of their living quarters, but this time, keeping in mind the temporary nature of this arrangement, as well as the sharing that characterises it. Nomad-4 explained how he started to use the online second-hand platforms in this context.

"We bought everything [furnishing] ourselves. That's when I started to go down to FIND [the largest second-hand online platform, Finn in Norwegian] to buy used furniture."

The attitude toward second-hand goods changed among all participants in this group. They became more acceptable, mainly because of the price. However, it was interesting that the shared items were also decided on based by the smallest price tag. Talking about the piece of living room furniture, Nomad-1 said:

"It's cheaper on FIND, and I didn't have the money to buy new stuff. You can actually, find very nice things on FIND. Since we were going to share it between the three of us, we would just take the cheapest one."

Three Nomads said that they would have liked to bring things from their parents' home. However, this was not always possible. Some desired things that were too expensive to be used in shared *student lifestyles*, or it was too costly to move larger things to new places. In addition, none wanted to own things that they could not leave behind or throw away - just in case that, like *nomads*, they had to move multiple times, something that happens often. Therefore, all of them held a belief that inexpensive first-hand markets (such as IKEA), or *reliable* second-hand markets (implied either the online platform FIND, or the established and well known flea-markets) are best suited for this life stage.

Although they all have had experiences of purchasing second-hand goods now, the actual choices made reflect that cheap first-hand purchases are preferred over the second-hand ones. The explained this by their busy schedules and the hassles associated with second-hand markets (mainly the need for transportation of things, the need to make time to search for items and check the sales premises including the price and the photos to check for possible miss-representation of goods, difficulty in communication with sellers, etc.).

4.3 Steady Independent Movers / Steady Archetype

A transition towards becoming a steady independent mover comes with a realisation of study objectives and setting of the career goals. This brings about several lifestyle changes. For most of the participants, a full-time job and a higher *steady income* effectively eliminated financial dependencies on their families and constraints of a student life, including the necessity of living in shared spaces. Moving out of a shared living space and into more personal ones (on their own, with a close friend, or a partner), strongly influenced choices and patterns of acquisition of things, furnishings and personal belongings. Things that the participants aspired to own were now within their financial reach. Most of them disposed of things using FIND, which they believed was suited for shared ownership in a more transient living setup. That is, they disposed of things that were suitable for a Nomad archetype. Asked if they also bought from FIND for their new place, the preference for new things was strongly present. Moverine-2 and Mover-1 (respectively) articulated this as follows:

“New stuff, because it is now our apartment and not something that we have to share.”

“I prefer to buy new things just because I don’t deal well with stuff like going to particular places [to pick up things], which is time-consuming for me. I worry about more things than when buying new, like okay, is it clean, does it look kind of old, how well was it used – those things I don’t need to think of if I go and get something new. Even if it’s less expensive, I think that I value more the practicality of having new stuff.”

Even though the participants experienced more stability in their lives, their lifestyle often continued to be transient. Most needed to rent an apartment rather than buy one. They also stated that they wished to explore other work opportunities, leading to changes in residences possibly frequently. Mover-1 reflected on this:

“I do not need to own things, I prefer to keep moving and the things that help me in my work are the things that I really want to own and I usually invest more in them.”

Mover-6 did not change the apartment as often as Mover-1, but points out that the things that he has are not perfect. When his life stops being in as much flux, he wants to make some changes. For now, it was OK to have and *hack* IKEA furniture.

“It is the same way with my bed. I’m noticing now, after 6 years that I’ve had it, it is becoming unbalanced. When I get my own apartment [owned, not rented], I need to buy a new one or a used one, but a good used one” and “I know that once I get a new place, maybe I’ll start with it [IKEA furniture], but when I start to earn money [more of it] I will want nicer things.”

These situational factors often made well-functioning goods available for redistribution. None of the participants considered disposal as an optimal choice, but found it to be a convenient alternative, given effort-intensive experiences with current redistribution platforms.

Summarising, the three archetypes had in common inherently provisional living situations, although to varying degrees. The underlying transience was a key motivation behind the (mainly necessity driven) engagement with redistribution services within this demographic. Thus, we identified the opportunity to explore ways of scaffolding transience by envisioning different pathways for moving goods between the archetypes, creating, in addition, possible pathways for sharing experiences, knowledge, skills and time, within a familiar, similar-minded demographic. This held a promise to mitigate premature disposal of goods, as well as provide the foundation for local and community based social practices.

5 Implications for Transition Design

We approached the issue of consumption among millennials with a *posture of openness*: we wished to do a broad, open, reflective and exploratory inquiry into routinised behaviours, focusing on culturally embedded, archetypal understanding of youth and their consumption patterns and practices. Our own value system includes the ecological thinking and beliefs that design for sustainment and wellbeing does and should make transition designer to do inner work and consider a series of polarities, such as the individual and the communal, the embedded reflexivity and the abstract knowledge, design or non-design, as also discussed in (Escobar, 2018; Irwin, 2015). With this posture, we outline the implications for transition design that can contribute to wider uptake of second-hand consumer goods, and position the reacquisition closer to the mainstream practices among millennials.

5.1 Vision for Change – Repositioning Reacquisition for Transient Lifestyles

As evident from the interviews, the practices of possession and dispossession of everyday things, largely pivot around the state of flux and transient nature of the living situation of this age group. Drawing on the previous research (Odom et al., 2009; Pierce & Paulos, 2011) and our findings from interviews, reacquisition, and specifically digital services for reacquisition, have a potential to target this group much better by offering sustainable services that are appropriate for the lifestyles of millennials.

Instead of a generic approach that connects buyers and sellers today, offering a seamless point-to-point peer transaction, the reacquisition services should offer a holistic system addressing the material needs and challenges of the dynamic, aspirational, and busy lifestyles of this young demographic. Beyond strategies to nudge toward making greener and more sustainable choices (by, for example, extending the use span of goods), or monetary benefits, the vision for change builds on a reacquisition service that connects archetypal behaviours of peers with similar, familiar and recognisable needs, and rituals/practices around usage of their possessions, in line with their transient lifestyles. Articulating and communicating this vision through the service can help build the trust in the service. The majority of the participants in our study felt confident in exchanges with other millennials. Hence, the threshold to take the service in use, and keep using it, can be reduced.

5.2 Theory of Change – Social Practice Theory and Positive Social Frictions

As nearly all interview accounts pointed to, social interactions with sellers on digital second-hand platforms such as FIND were often deemed uncomfortable and undesirable by otherwise rather social millennials. At the same time, the participants admitted that impressions of and conversations with sellers on second-hand platforms were essential to shaping the attitude towards the object that they wanted to buy. Everything related to a specific transaction, starting from the way that a second-hand object is presented on a digital second-hand platform, email-exchanges with a seller, person-to-person meetings – it all mattered.

Thus, a sustained and positive social friction was identified as an opportunity to further scaffold trust and create familiarity in relation to the alternative peer-to-peer service. This is important especially for reacquisition, our data showing that the existing services were used only if and when there was a need, and infrequently. To change that, the future service should provide for other social frictions between users beyond simply buying and selling by creating alternate opportunities for positive social interactions between peers, based on building multiple small, local and engaged communities. For instance, reacquisition market

platforms could actively support local DIY fixing events, function as an assistive forum for the young millennials settling down as newcomers to the neighbourhood, or offering reviews on second-hand values and lifespan of various goods. Thus, we envision that new social practices can be designed (L. Kuijer et al., 2013; S. C. Kuijer, 2014) to support more frequent and sustainable exchanges not only of second-hand goods but also knowledge and experiences through these positive social frictions.

5.3 Value – Pathways for Movements of Goods to a New Context

Pierce and Paulos (Pierce & Paulos, 2011) emphasise contextual situatedness as something that can re-code the value of any object, claiming that everything has the potential to be valuable in some context. The pivotal position of the context was also evident in our research. For instance, Dwellers liked to keep trendy. Their things rarely used up their life-span, yet Dwellers did not show an inclination to engage with meaningful disposal. This is in line with their context of being nurtured. However, with some effort, they could be passing their goods to Nomads, who did not show much care for trends and where the price tag was the most important. Building on this, we explore the agency of design to envision robust pathways for the movement of durable goods across meaningful contexts, see Figure 1. The interviews, especially the use patterns of Movers, indicated that sustained patterns of moving goods to Nomads could be beneficial. We argue for designing the path of reacquisition by connecting peers with complimentary lifestyles as well as familiar routines of use as one of the main value statements that express well both our own values and intent with design, but also bring value for millennials.

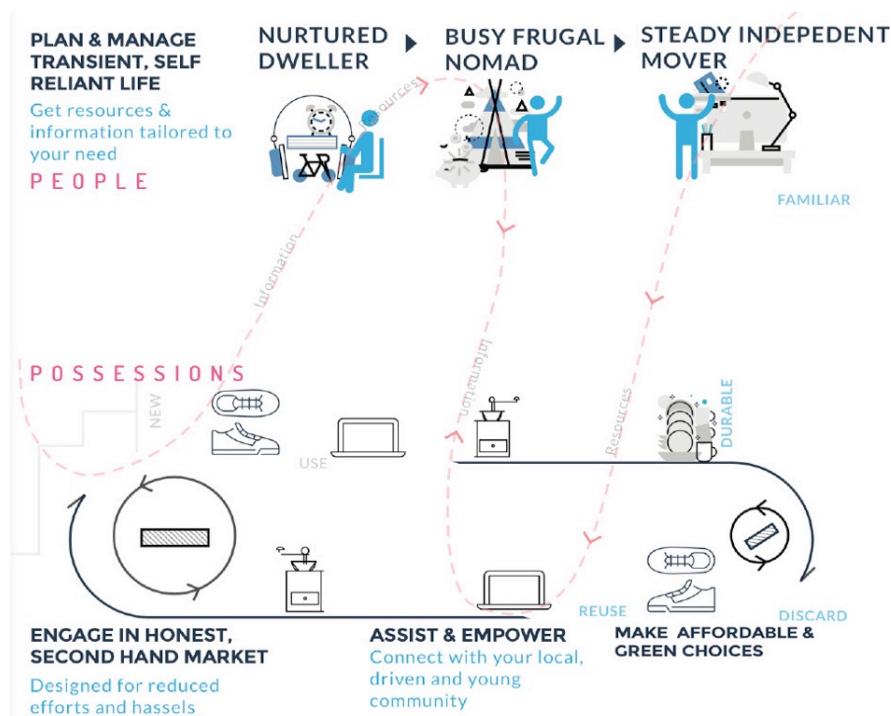


Figure 1. Connecting archetypes by reacquisition pathways and placed based, active, and young communities.

5.4 Value – Mitigate the ‘Easy Riddance’ Reputation of Second-hand Markets

Reacquisition needs to be designed and branded in ways that remove the reputation of second-hand markets as being platforms for *getting rid of unwanted things*. The subtle inclination of these services towards selling as opposed to buying, through narratives and systems interactions encourages the use of these platforms as a convenient disposal

strategy as well as a source of cheap throwaway goods, countering the intent of reducing consumption. Instead, reselling platforms need to be designed to adopt and promote the narrative of movement and circulation of treasured stuff rather than *getting rid of unwanted things*, where the community views the goods as a representation of their intents, practices, and aspirations.

Additionally, by positioning the service as a clear and defined platform for mainstream utilitarian goods for the younger population with a transient lifestyle, the quality standards of the service can be tailored towards care, share, ease, and transparency in touch points between the millennials and the service.

Taking into consideration the above findings and their implications, we have used a combination of systemic thinking, research through design, service design and branding to propose a new way of designing future second-hand marketplaces for millennials (Srivastava, 2017; Srivastava & Culén, 2018).

6 Conclusion

Across archetypes, socio-culturally shared attributes of millennials' lifestyles show essential similarities and differences. The most important similarities, in terms of implications for transition design, are the transient nature of lifestyles and a strong preference for new goods despite deep awareness of issues around sustainability. Together, these define millennials as a population in need of a radically different service, supporting transience and more sustainable living. The differences among archetypes supported a conceptual mapping of distinct and sometimes oppositional categories of consumption behaviours that could serve as a basis for charting future, elaborate and flexible pathways along which goods, skills, knowledge and meanings could flow. Finally, narratives encoded by consumerism and mass acquisition need to change to incorporate new values and visions, distinct from *cheap* and *riddance* and create iconic behaviours based on care for things, people and the planet.

7 References

- Escobar, A. (2018). *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. Durham: Duke University Press Books.
- Ingram, J., Shove, E., & Watson, M. (2007). Products and Practices: Selected Concepts from Science and Technology Studies and from Social Theories of Consumption and Practice1. *Design Issues*, 23(2), 3–16. <https://doi.org/10.1162/desi.2007.23.2.3>
- Irwin, T. (2015). Transition Design: A Proposal for a New Area of Design Practice, Study, and Research. *Design and Culture*, 7(2), 229–246. <https://doi.org/10.1080/17547075.2015.1051829>
- Irwin, T. (2018). The Emerging Transition Design Approach. *Proceedings of DRS 2018: Catalyst*, Vol. 3, 78–99. <https://doi.org/10.21606/dma.2017.210>
- Irwin, T., Kossoff, G., Tonkinwise, C., & Scupelli, P. (2015). *Transition design*. Carnegie Mellon School of Design.
- Julier, G. (2007). Design practice within a theory of practice. *Design Principles & Practices: An International Journal*, 1(2), 43–50.
- Kuijjer, L., Jong, A. de, & Eijk, D. van. (2013). Practices as a Unit of Design: An Exploration of Theoretical Guidelines in a Study on Bathing. *ACM Trans. Comput. -Hum. Interact.*, 20(4), 21:1–21:22. <https://doi.org/10.1145/2493382>
- Kuijjer, S. C. (2014). *Implications of Social Practice Theory for Sustainable Design* (Doctoral dissertation, Delft University). Retrieved from <http://resolver.tudelft.nl/uuid:d1662dc5-9706-4bb5-933b-75704c72ba30>
- Manzini, E. (2015). *Design, When Everybody Designs: An Introduction to Design for Social Innovation* (R. Coad, Trans.). Cambridge, Massachusetts: The MIT Press.
- McDonald, S., & Oates, C. J. (2006). Sustainability: Consumer Perceptions and Marketing Strategies. *Business Strategy and the Environment*, 15(3), 157–170. <https://doi.org/10.1002/bse.524>

- Megehee, C. M., & Spake, D. F. (2012). Consumer enactments of archetypes using luxury brands. *Journal of Business Research*, 65(10), 1434–1442. <https://doi.org/10.1016/j.jbusres.2011.10.009>
- Odom, W., Pierce, J., Stolterman, E., & Blevis, E. (2009). Understanding why we preserve some things and discard others in the context of interaction design. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 1053–1062.
- Owen, C. (2007). Design thinking: notes on its nature and use. *Design Research Quarterly*, 2(1), 16–27.
- Peyer, M., Balderjahn, I., Seegebarth, B., & Klemm, A. (2017). The role of sustainability in profiling voluntary simplifiers. *Journal of Business Research*, 70, 37–43. <https://doi.org/10.1016/j.jbusres.2016.07.008>
- Pierce, J., & Paulos, E. (2011). Second-hand Interactions: Investigating Reacquisition and Dispossession Practices Around Domestic Objects. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 2385–2394.
- Prensky, M. (2001). Digital Natives, Digital Immigrants Part 1. *On the Horizon*, 9(5), 1–6. <https://doi.org/10.1108/10748120110424816>
- Selwyn, N. (2013). The digital native – myth and reality. *Aslib Proceedings*. 61(4), 364-379. <https://doi.org/10.1108/00012530910973776>
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and How It Changes*. 1 edition. Los Angeles: SAGE Publications Ltd, 2012.
- Srivastava, S. (2017). Zygo: Design-led reframing of second-hand marketplaces. *Nordes 2017, Design + Power*. Retrieved from <http://www.nordes.org/nordes2017/programme/index.html>
- Srivastava, S., & Culén, A. L. (2018). Transition-oriented Futuring: Integrated Design for Decreased Consumption amongst Millennials. *DRS 2018: Catalyst*, 3, 927–940.
- Srivastava, S., & Culén, A. L. (2019). From Niche to Mainstream Transitions: Digital Second-hand Markets for Millennials. *Proceedings of the International Conference ICT, Society and Human Beings 2019*, 19–27.
- Tonkinwise, C. (2015). Design for Transitions – from and to what? *Design Philosophy Papers*, 13(1), 85–92. <https://doi.org/10.1080/14487136.2015.1085686>
- Wakkary, R., Desjardins, A., Hauser, S., & Maestri, L. (2013). A Sustainable Design Fiction: Green Practices. *ACM Trans. Comput. -Hum. Interact.*, 20(4), 23:1–23:34. <https://doi.org/10.1145/2494265>
- Woodside, A. G. (2010). Brand-consumer storytelling theory and research: Introduction to a Psychology & Marketing special issue. *Psychology & Marketing*, 27(6), 531–540. <https://doi.org/10.1002/mar.20342>

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