

# The untold stories of the Repair Cafe



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**An explorative research on the reasons why people repair  
their product at the Repair Café**

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MSc Thesis Management, Economics and Consumer Studies

Course code: SCH-80436

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Wageningen, January 2020

Wageningen University

## Preface

Dear reader, the preface is the start but also the end of my MSc thesis, because I finish with writing the preface. In my opinion a preface is a short reflection of the past couple of months in which I want to thank various people who have been involved in this process. As you might not expect from me, I will not beat around the bush and I will use this page to put these people in the spotlight and to thank them.

To start, I want to thank my supervisor Maartje Bulkens. Maartje was a tower of strength to me during my thesis, as for example I was only with Maartje able to discuss about the Actor-Network Theory. Furthermore, she has been an incredible supervisor since she challenged me to take decisions which I probably had never chosen without her supervision. For example, the choice to use ANT as an underlying theory and framework for this thesis, but also the choice to do narrative interviewing. Methods I have not used before during my study time. I have been challenged on academic and personal level. Thank you Maartje, I hope our paths will cross in the near future.

Next, I want to thank the volunteers and the visitors of the Repair Café I have interviewed for this thesis. Beforehand I did not expect the willingness of the visitors to participate in this study and the extent to which participants opened up to tell their story. All the ten informants shared a piece of their lives, which I find special. Thank you for your time and the stories you have shared.

Furthermore, I want to thank my friends, family and Eugène, for listening to my (never ending) stories. Thank you for the patience. Also, Eugène supported me with grammar while writing this thesis, as it turned out I have lost some of my English vocabulary from the time I studied in the USA... Thank you Eugène, I can assure you this is the final page to check the grammar!

Even though I have not finished my study programme, I can already conclude this thesis is the cherry on the cake of my study programme. By writing this thesis I found my passion for research and the Repair Café. I can look back on this thesis with a warm and satisfied feeling.

For my final words I would like to recommend each reader to repair your broken products (unless replacement is better for the environment). If unable to repair by yourself, visit the Repair Café and meet new people, learn new skills, and listen to the tips and stories the repair technicians tell you! I can assure you; you will love it.

Lianne Pit

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# 1 Introduction

Waste generation rates are rising across the globe (Kaza, Yao, Bhada-Tata, & van Woerden, 2018). Worldwide, 2.01 billion tonnes of municipal solid waste is generated annually. Due to rapid urbanization, population growth and economic development, the amount of global waste is expected to grow to 3.40 billion tonnes by 2050 (Kaza et al., 2018). An increase of 70% of global waste over the next 30 years.

We live in a so called “throwaway society”, which means if a household product is in disrepair people simply dispose it and replace it for a new product rather than repairing it (McCollough, Bayramoglu, & He, 2018, p. 131). Furthermore, it is known that societies are transitioning towards a throwaway society (Hume, 2010; Robins, 1999), as their economies develop further (Hellmann & Luedicke, 2018; King, Burgess, Ijomah, & McMahon, 2006; McCollough et al., 2018). Repairing broken products for further reuse is generally considered more sustainable for the environment compared to disposing and replacing it for a newly manufactured product (King et al., 2006; McCollough et al., 2018), except if the product can be replaced by a more energy efficient alternative (Boustani, Sahni, Graves, & Gutowski, 2010; Kim, Keoleian, & Horie, 2006; Nguyen, Lobo, & Greenland, 2017).

To counter the transition towards a throwaway society Martine Postma initiated the Repair Café in Amsterdam, the Netherlands, in 2009. Repair Cafés are free community services where volunteer repair experts help people in the neighbourhood repair their malfunctioning product (RepairCafé, 2018). For example, broken coffee machines, vacuum cleaners, trousers, irons and laptops have been brought to Repair Cafés to repair. By repairing the broken products Repair Cafés try to expand the products lifespan and try to slow down the rising waste rates.

Within ten years, the number of Repair Cafés has increased up to 2005 in total worldwide (RepairCafé, 2020). Nevertheless, specific research on why people repair or specifically visit a Repair Café to repair their malfunctioning product has not been conducted yet. From a sociological perspective it is interesting to do this research, since products are well integrated in humanity’s lifestyle. Products can tell a lot about what their functions and roles are in our lives, how it shapes us, and it can help by explaining why it is being repaired by their owner. Furthermore, the roles Repair Cafés plays for visitors is also interesting to find out, because it can help by explaining why people specifically visit a Repair Café to repair their product.

Due to a knowledge gap in current research on Repair Café’s and products brought to a Repair Café, the topic of this thesis is focused on this. This thesis uses the Actor-Network Theory (ANT) as an underlying theory. Narrative interviews are conducted with the owners of

the broken products brought to a Repair Café, forming the methodology. Afterwards, the narratives will be thematically analysed, and the results will be discussed in the discussion chapter. The research questions of this thesis can be answered in the conclusion.

## **1.1 Research questions and chapter overview**

The main goal of this explorative research is to find the roles a product, brought to a Repair Café, plays in the life of the owner(s) and the roles a Repair Café plays for Repair Café visitors. To achieve this goal, a main research question is formulated:

*“Why do people repair their product at the Repair Café?”*

To answer this main research question, two sub research questions have been formed:

- Why do people want to repair their product?
- Why do people visit the Repair Café?

Before these questions can be answered and discussed, I first provide in chapter two some background information about circular economy, the Repair Café, factors that might influence consumers in the decision making to repair a product and the social relevance of this thesis. Followed in chapter three I clarify the theoretical framework, the Actor-Network Theory. Chapter four describes the methodology, with the Actor-Network Theory, however more attention is paid to narrative analysis which is used as the main method in this thesis. In chapter five the results of this thesis are presented. The results are discussed and interpreted in chapter six. Finally chapter seven the conclusion of this thesis answers the main research question.



## 2 Background

One third of the global waste is generated from high income countries (Kaza et al., 2018). Though, these countries account for only 16 percent of the world's population. More waste will be produced as countries economically develop further and GDP rises (Hellmann & Luedicke, 2018; King et al., 2006; McCollough et al., 2018) as there is a positive correlation between income level and waste generation (Kaza et al., 2018). Worldwide, increasing attention is paid to this unsustainable event. Some governments and institutions view the circular economy model as the solution to this problem and are currently trying to transition towards a circular economy. Section 2.1 focusses on the transition towards a circular economy and the reasons behind it. Also, the transition towards a circular economy in the Netherlands will be discussed in this section. Furthermore, section 2.2 provides background information about the Repair Café. The Repair Café is a Dutch circular initiative which arose as a countermovement against the throw-away society. Nowadays, a total of 1983 Repair Café's exist worldwide, and this amount is still rising. A further background of the initiative, the motives and what it explicitly entails are described in this section. Additionally, section 2.3 describes the reasons and factors influencing consumers to repair or to not repair their broken product. Moreover, section 2.4 entails the social relevance of this thesis.

### 2.1 Transitioning towards a circular economy

Presently, there is a widespread consensus that the current consumption and production practices are having a destructive effect on the quality of the environment, the global social equity and the long-term economic stability (Anand & Sen, 2000; Rees, 2010; Schaefer & Crane, 2005; Vlek & Steg, 2007). The prevailing linear economy model of “take, make, and waste” has been identified as one of the contributing factors to these consumption and production practices (Bonviu, 2014; Esposito, Tse, & Soufani, 2017; Korhonen, Honkasalo, & Seppälä, 2018). Since in a linear economy raw material are extracted, manufactured, distributed, consumed and discarded to induce economic growth (Figure 1). This economic model leads to unnecessary resources lost, since waste is seen as end-of-life (Andersen, 2007; Costanza, Cumberland, Daly, Goodland, & Norgaard, 1997; Frosch & Gallopoulos, 1989; Hoekstra & Wiedmann, 2014; Michelini, Moraes, Cunha, Costa, & Ometto, 2017).

The circular economy model (Figure 1) is advertised as an economic model that can provide the solution on waste reduction (EllenMacArthurFoundation, 2017; Michelini et al., 2017; Webster, 2015). Kirchherr, Reike, and Hekkert (2017) define circular economy as;



An economic system that replaces the “end-of life” concept with reducing, alternatively reusing, recycling and recovering materials in production / distribution and consumption process. It operates at the micro level (products, companies, consumers), meso level (eco-industrial parks) and macro level (city, region, nation and beyond), with the aim to accomplish sustainable development, thus simultaneously creating environmental quality, economic prosperity, and social equity, to the benefit of current and future generations. It is enabled by novel business models and responsible consumers. (p. 224)

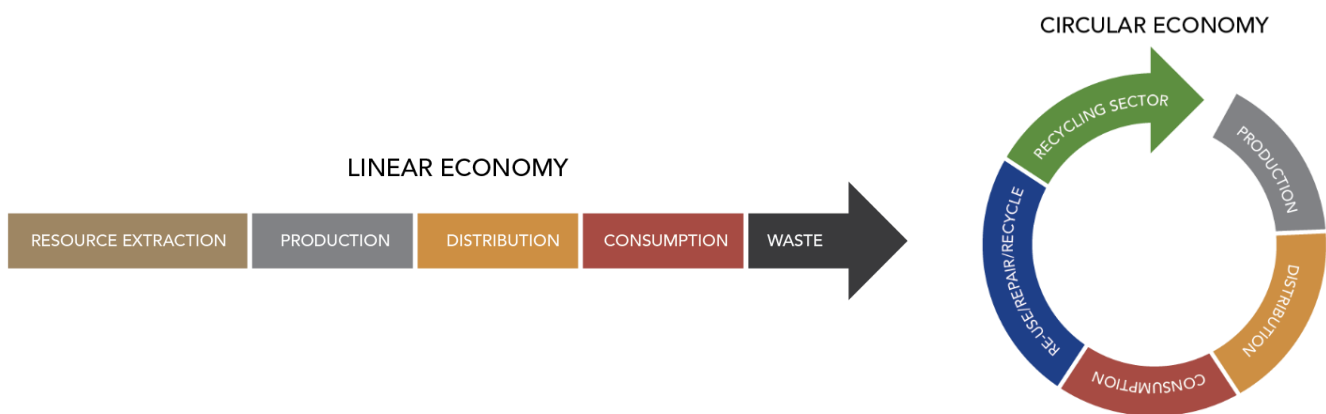


Figure 1 A linear economy model versus a circular economy model (Brands, 2018).

How the long-term effects of a circular economy differ compared to the linear economy model has not been thoroughly explored yet (Millar, McLaughlin, & Börger, 2019). However, the implementation of the concept circular economy has been notably encouraged and promoted by the European Union (EU). For example, for the Europe 2020 strategy the EU has assigned resource-efficiency as one of the flagships (Tukker, 2015).

### ***2.1.1 Transitioning towards a circular economy in the Netherlands***

As a result of the EU promotion, circular economy is on the rise in the Netherlands (Planbureau voor de Leefomgeving, 2019). In 2016, the Dutch government started with a government-wide program called “the Netherlands Circular by 2050”. PBL (2019) designed a circularity-ladder (R-ladder), in which circular strategies are ranked from most to the least resource-savings (Figure 2). The higher a strategy is set in the ladder the more resources are being saved.

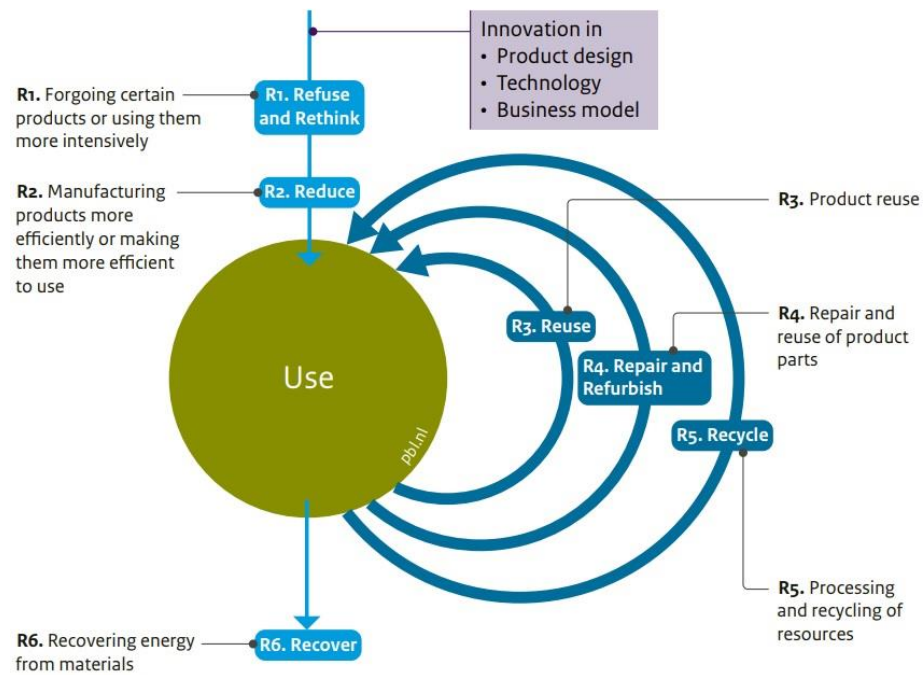


Figure 2 R-ladder of circularity strategies (PBL, 2019, p. 13).

The highest strategy on the R-ladder is Refuse & Rethink (R1). In this concept people rethink on using a product or use a product more intensively by sharing it. For example, one refuses to buy a drilling machine and instead lends it from a hardware store. Reduce (R2) is the second strategy in the R-ladder. In this concept products are manufactured more efficiently, or the efficiency of use is enhanced. For example, a refrigerator's energy label is improved. The third strategy is reuse (R3). In this concept the lifespan of a product is expanded by reusing it. For example, if one decides to buy clothes second hand. Repair & refurbish are the fourth strategy (R4). In this concept the lifespan of a product is expanded by repairing it, or the parts of a product are being reused. For example, if a zipper of a pair of pants is broken, it can be repaired by (re)using another zipper. Recycle is the fifth strategy (R5) and in this concept discarded products are being processed to be reused. For example, discarded fishing nets are recycled to produce carpets. Recover is the final strategy of the R-ladder (R6). In this concept waste is seen as a resource to produce energy. For example, municipal solid waste is burned to fuel steamboat.

Around 85.000 circular activities exist in the Netherlands (PBL, 2019). Examples of R1, refuse and rethink, activities are sharing platforms like Lena, a library where you can borrow clothes (Lena, 2017). Another example is Snappcar where you can borrow a car from people in

your neighbourhood (Snappcar, 2019). Also subscription platforms exist, for example Bundle, a company at which you can subscribe to rent a coffee machine, dishwasher, tumble dryer or washing machine (Bundles, 2019). Or Swapfiets a company where you can subscribe to rent a bike for a month or longer (Swapfiets, 2019). Besides the sharing and subscription platforms, other circular initiatives also exist. For example, the social enterprise Fairphone produces mobile phones that are repairable (Fairphone, 2019). Furthermore, the company Wasteboards makes skateboards produced from recycled bottle caps (Wasteboards, 2015). While the company Interface produces carpets from discarded fishing nets (Interface, 2019).

Remarkably, the majority of the Dutch circular initiatives are aimed at recycling (PBL, 2019). However, circular economy is exceeding the concept of recycling. Also, other circular strategies play an important role within circular economy.

## **2.2 Repair Café**

Apart from recycling initiatives, repairing is also a circular strategy (R4). A recently and rapidly growing circular initiative is the ‘International Repair Café Foundation’, founded by Martine Postma in the Netherlands in 2009. Repair Cafés are free community services where people can repair and maintain broken products with the help of an expert fixer volunteer (Repair Café, 2018). Repair Café meetings are organized once or twice a month in a public place (e.g. thrift stores, community centres, libraries or schools) and the entire community is welcome.

The first Repair Cafés were organized in the Netherlands, but nowadays Repair Cafés are widely spread across the globe. As for example Canada, Japan, Brazil and Ghana organize Repair Café’s (Repair Café, 2018). Also the number of Repair Café is still growing worldwide because at the start of this thesis 1744 Repair Café’s existed and at the end 2005 Repair Café’s (RepairCafé, 2019, 2020).

In general, the International Repair Café Foundation has three goals. Firstly, the foundation aims to create and achieve a more sustainable world by striving for sustainability at local level first (Repair Café, 2018). By repairing, the product lifetime is extended and a more circular economy lies ahead (PBL, 2019; RepairCafé, 2018). Since repairing broken products reduces CO<sub>2</sub> emissions in the atmosphere, as recent research showed repairing one product at the Repair Café can prevent up to 24 kg of CO<sub>2</sub> emissions (Privett, 2019). In 2018, roughly 496.000 broken products, such as vacuum cleaners, lamps, and toys were taken to the Repair Cafés. 70% of these broken products were successfully repaired at the Repair Cafés (Repair

Café International, 2019), which means that more than 8 million CO<sub>2</sub> emissions have been saved and this is equivalent to the annual CO<sub>2</sub> emissions of 850 Dutch people (Repair Café International, 2019). Secondly, the International Repair Café Foundation aims to preserve and disseminate repair knowledge. By repairing broken products at public places, repairing becomes part of the local community. Besides, valuable practical knowledge about how to repair is getting passed on (Repair Café, 2018). Thirdly, the foundation promotes social cohesion by bringing the local community with different backgrounds and motives together by organizing inspiring and accessible meetings for everyone (Repair Café, 2018).

In short, Repair Cafés are a manner to introduce and give attention towards sustainable consumption at societal level. Through this Repair Cafés can help to change the society towards a more circular economy.

## **2.3 To repair or not repair**

As mentioned in the introduction of this thesis and also showed in the R-ladder (Figure 2) repairing a broken product for further reuse is generally considered safer for the environment than disposing and replacing the product for a newly manufactured one (King et al., 2006; McCollough et al., 2018). Yet, consumers do not always choose to repair their broken product. In this section several factors that might influence consumers in the decision making to repair or not repair their product will be discussed.

### ***2.3.1 Cost differential***

It is known that the cost differential between repairing or replacing a product is of primary importance in the decision making of consumers to repair or replace the product in question (McCollough et al., 2018). In general, consumers are only willing to pay for a repair when the cost of repairing is between 19% and 23% of the replacement costs (Adler & Hlavacek, 1976; McCollough, 2007). When the repair costs are above this threshold repairing becomes less desirable for consumers and consumers can decide to replace their broken product more easily.

Over time the cost of newly manufactured products have declined significantly (Bonaglia, Goldstein, & Mathews, 2007; Govindarajan & Gupta, 2000; McCollough et al., 2018; Rogoff, 2003). Similarly, the selling price of products decreased. For example, the price of household appliances declined by 20% from 1975 to 1999 in OECD countries (de V. Cavalcanti & Tavares, 2008). On the other side, the wages have been increasing over the years

(McCollough et al., 2018). As a result of these events, the threshold to repair broken products became smaller and smaller since the replacement costs decreased and the repair costs increased (McCollough, 2009). Especially in high wage countries this is visible. Since labour intensive services, like repair services, are relatively more costly in high wage countries than in low wage countries (Lipsey & Swedenborg, 2007).

### ***2.3.2 Obsolescence practices***

Another factor which influences consumers in the decision making to repair a broken product is the idea of planned obsolescence. Planned obsolescence is when companies design, create and sell their products in such a manner that it becomes non-functional in a certain period of time (Satyro, Sacomano, Contador, & Telles, 2018). By this the product lifetime is being reduced, or technological updates are being prevented, so forcing consumers to buy new goods more often (Bakhiyi, Gravel, Ceballos, Flynn, & Zayed, 2018; Kozlowski, Searcy, & Bardecki, 2018; Lawlor, 2015; Maitre-Ekern & Dalhammar, 2016). The purpose of planned obsolescence is to instigate consumers to replace their product or appliance before it is really inevitable (Guiltinan, 2009; Packard, 1960).

According to Cooper (2004), there are three obsolescence practices that affect consumers in the decision making to not repair their product and choose to dispose it. Firstly, economic obsolescence. Economic obsolescence occurs “when there are financial factors that cause products to be considered no longer worth keeping” (Cooper, 2004, p. 426). For example, the product can be replaced by a more energy-efficient one, or the replacement price of the product is cheaper compared to the repair price. This is for example how Poulter (2015) found repairing broken bearings in some washing machines is made so expensive and complex to repair that it is cheaper to buy a whole new washing machine instead. Satyro et al. (2018, p. 746) calls this practice “design for limited repair”, entailing that some components of a product are being designed to degenerate fast and are so costly to be replaced, that it is cheaper for a household to buy a new product instead.

The second obsolescence practice classified by Cooper (2004) is technological obsolescence. Technological obsolescence is caused when technically superior replacement products are being introduced in the market. The technological improvement could either be in functionality or in design features (Guiltinan, 2009; McCollough, 2009). Examples are miniaturization and sophistication of everyday consumer electronics (McCollough, 2009). Satyro et al. (2018, p. 748) discovered a similar obsolescence mechanism called “design for

restricted technological update” whereby products are designed to use restricted soft- and hardware. Software developers can force the product to become obsolete. They can do this by deciding not to provide support or software updates anymore, or by launching a new software that is so powerful that new hardware is needed (Satyro et al., 2018). By not providing support and software updates it is nearly impossible by the common consumer to repair these products.

The third and last category Cooper (2004) describes is psychological obsolescence, which is the most abstract one of the three. This arises when consumers are no longer attracted to their product or satisfied by it. Marketing, new trends, desire for social status, and changes in perceived needs can influence the decision making process of consumer to not repair a broken product but replace it for another one (Cooper, 2004; Guiltinan, 2009).

### ***2.3.3 No need in repairs and no trust in (repair)stores***

Besides that consumers are sometimes no longer attracted to their product or satisfied with it, often the ease and convenience of repair is also of importance in the decision making to repair a product (Page, 2014). It is known that many consumers find repairing inconvenient, time consuming, costly and frustrating (Scott & Weaver, 2014). Furthermore, in determining which consumer will choose to repair or replace a product, the opportunity cost of time<sup>1</sup> plays a significant role (McCollough et al., 2018). Guiltinan (2009) reports that people with a high disposable income forgo repairs as time is needed in most repair cases. It is not worth their time, for example, to wait for a repair technician to come and repair the malfunctioned product or to stay at home and repair the product by yourself. In addition, there exists a chance that the malfunctioned product cannot be repaired or repaired incorrectly (McCollough et al., 2018). As a result, people with a high disposable income have no need to repair a broken product and rather replace it for a new one.

Lastly, consumer’s confidence that a repair is done correctly and at a fair price influences the decision to repair. Darby and Karni (1973) characterize repair services as credence goods<sup>2</sup>. They argue that a dishonest repair technician can use the ignorance of repair experience and knowledge of consumers to exploit the consumers. For example, dishonest repair technicians can overcharge their repair service, or charge for a repair service that they

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<sup>1</sup> Opportunity cost is “the loss of other alternatives when one alternative is chosen”(Lexico, 2020).

<sup>2</sup> A credence good is a product or service that is difficult for the customer to value, even after it has been purchased or consumed (Spacey, 2017). This makes it for a consumer difficult to assess its utility.

did not do or provide more service than was needed. All these forms of exploitations makes consumers uncertain by the decision to repair their product and through this fewer repairs will take place (Darby & Karni, 1973).

#### ***2.3.4 Product attachment***

The experience a consumer has with and feels towards their product also influences consumers in their decision making whether to repair a product or not (Mugge, Hendrik, Schifferstein, & Schoormans, 2010). Mugge, Schoormans, and Schifferstein (2005) and Van Nes and Cramer (2006) agree that if a consumer experiences a strong relationship with a certain product he or she is more likely to take care for it and tries to postpone its replacement by repairing if possible. Furthermore, Page (2014) discovered that products which have high functionality, have sentimental value or are pleasurable to use are more likely to be repaired (if broken) by their owner(s) compared to replaced and discarded. While Mugge et al. (2005) also discovered the fashion design of the product plays a role in the likelihood of consumers repairing instead of replacing a product. Products follow different fashion styles, either short-lived or long-lived styles which extend over a longer period of time (Mugge et al., 2005). Fashion styles influence the popularity of products thus unpopular fashion styles (short-lived) result in early replacement of a product. Products with a long-lived fashion style are more likely to be repaired by their owner since their fashion style remains longer popular.

Being attached to a product and repairing the product instead of replacing it may help in reducing our current throw-away society (Page, 2014). Yet, it is hard to specify which type of products consumers are more likely to be attached to than others (Kleine & Baker, 2004). Since consumers can experience a strong user connection with a meaningful product but can also experience attachment with an everyday product. Furthermore, it seems that product attachment tends to develop over time (Page, 2014). Schifferstein and Zwartkruis-Pelgrim (2008) also found that product attachment varies over time and that product attachment is often highest when a product recently entered a consumer live or when a consumer owns a product for a longer time.

### **2.4 Social relevance of thesis**

Concluding, there are several factors that can influence consumers in their decision making whether to repair a product or not. Still, worldwide millions of broken products are disposed of and replaced each day (Cooper, 2010). Although replacing a product does not



indicate the product has been thrown away, the time that consumers own a product is decreasing significantly (Van Nes & Cramer, 2006). Replacing compared to repairing requires more raw materials, it causes higher amounts of emissions from the newly produced goods which could lead to more toxic waste leaking from decomposing devices and other products (King, Burgess, Ijomah, & McMahon, 2006), as well as more landfill use. To counter this unsustainable event a societal shift is needed, for which Repair Cafés could play a role. Since Repair Cafés aim to create and achieve a more sustainable world by striving for sustainability at local level first (Repair Café, 2018). By repairing a broken product, the lifetime of the product is extended, which contributes to a circular economy (PBL, 2019; RepairCafé, 2018). Due to a knowledge gap in current research on Repair Café's and products brought to a Repair Café this thesis focusses on this topic.

### **3 Theoretical Framework**

In this chapter the Actor-Network Theory (ANT) will be discussed in detail. ANT will be used in this thesis as an underlying theory and framework that can help in answering the research questions. ANT has a strong focus on assemblages between the social and the material, the human and the nonhuman. As this thesis is an explorative research on Repair Cafés, ANT can help in tracing how the social, in the form of visitors and volunteers, and the material, in the form of products brought to Repair Cafés make up a collective / state of affairs in Repair Cafés. The next section is written to gain a better understanding of ANT as an underlying theory.

#### **3.1 Actor-Network Theory**

During the mid-1980s Bruno Latour developed together with Michel Callon and John Law the Actor-Network Theory (Evarts, 2011; Sismondo, 2010). ANT arose from criticism towards the sociology of the social, or traditional sociology. Latour, Callon and Law criticized that only humans and not nonhumans (e.g. mundane objects, technologies) are taken into account when sociologists are studying society, the social. According to Latour, the social is not a separate realm, but a wide range of assemblages of human and nonhuman entities (Vries, 2016). Furthermore, Latour claims that sociologists have to change their mind with the idea that the social designates a realm separate from the world of nonhumans and the idea that social action can only be accomplished by humans (Law, 1992; Vries, 2016).

As a result towards this critique, ANT was introduced as an alternative social science (Vries, 2016). ANT treats the social and the material as inseparable, positions nonhumans as equally important to humans with both having agency, and argues that humans and nonhumans should be analysed in a symmetric way (Alcadipani & Hassard, 2010; Booth, Andrusyszyn, Iwasiw, Donelle, & Compeau, 2016; Parker, 2017; Sismondo, 2010; Walsham, 1997). Furthermore, ANT can also be used as a technique that can help by tracing how heterogeneous, human and nonhuman, entities come together to form assemblages or networks of associations and connections (Parker, 2017; Vries, 2016).

The central idea of ANT is to explore and theorize about how networks between human and nonhuman entities (also called actants) come into being and how these assemblages can generate effects like power, inequality and organizations (Cresswell, Worth, & Sheikh, 2010; Law, 1992; McLean & Hassard, 2004). This since ANT considers the social (the world) as “nothing other than patterned networks of heterogeneous materials” (Law, 1992, p. 381). ANT

wants to trace what associations exists, how actants move, how they are enrolled into a network, how parts of a network form a whole network and how networks reach temporary stability (or vice versa, why some new actants within a network may form unstable networks) (Callon, 1984; Doolin & Lowe, 2002; McLean & Hassard, 2004).

To get a better understanding of what a network is, how networks come into being, how stable a network is and how a network can be traced and analysed, the following subsections have been written.

### ***3.1.1 What is a network and how does it come into being?***

When discrete actants form, align, and entangle with each other, networks between them can be established and these networks can stimulate various actions (Booth et al., 2016). In ANT a network is a concept introduced to highlight the role of chains of translations in making up the social (Vries, 2016).

Before a newly stabilized network is developed, actants first go through the process called translation. In the process of translation, actants mutually negotiate to determine the agency and importance of each individual actant (Law, 1986). According to Callon (1984) the translation process can be broken down into four subprocesses. These are: problematization, intersement, enrolment and mobilization of allies.

The problematization process is about bringing together actants with a common interest (Booth et al., 2016). In this process there is a dominant or primary actant that starts to establish itself. This actant will take the role of gatekeeper (also called Obligatory Point of Passage, OPP), between other actants in the forming network. Eventually, the gatekeeper will play a salient and robust role within the network, such that the role becomes irreplaceable in defining the interests at hand, and in changing the other actants interest to align with the gatekeepers interests (Booth et al., 2016).

The intersement process is about the gatekeeper which initiates the translation process. The gatekeeper tries to calm down or convince other actants so that their given and defined roles are feasible and acceptable in the newly forming network (Booth et al., 2016).

The enrolment process is when actants start to align themselves with their given roles. The actants begin to accept and represent the defined roles and interests that were given to them by the gatekeeper (Booth et al., 2016).

The mobilization of allies process is when actants start to reflect upon their journey and confirm again that their given role fits within the established network. The mobilization of allies process is the last process in the translation process and recurs repetitively (Booth et al., 2016).

If the whole translation process occurs successfully, then a stabilized network, also called black box or punctualized actor may form (Law, 1992; Walsham, 1997). So, “an actor-network is not a network of actants, but an assembly of actants who (by way of the translations they are involved in) are networked and defined by other actants” (Vries, 2016, pg. 92).

### ***3.1.2 How stable is a network?***

It is important to mention that the stability of a stabilized actor-network can become challenged or compromised at any time. First of all, the stability of an actor-network depends on the wishes and reactions of multiple actants (Booth et al., 2016). Even if actants do not have the role of gatekeeper within networks, actants still possess agency and autonomy within networks. So any actant within a network, irrespective of its position, can cause a network to become unstable, collapse or reform in different patterns (Booth et al., 2016; Doolin & Lowe, 2002). Second of all, networks are always evolving and changing since social reality is seen to be both fluid and complex (Law, 1999). So it can be concluded that the above described translation process is not a linear process within a network, but an extremely recursive and non-static process (Booth et al., 2016).

### ***3.1.3 How to trace networks?***

Before I describe how to trace networks. I first want to explain shortly what an actant is. The term actant (or actor)<sup>3</sup> is generally used to denote both humans and nonhumans (Walsham, 1997), that interact within networks of other actants (Sismondo, 2010). According to Law (1992, p. 384) an actant is always “a patterned network of heterogeneous relations, or an effect produced by such a network”. An actant can be anything, it can be concrete or abstract, artificial or structural (e.g. a visitor of the Repair Café, a drill, a mobile phone, the Netherlands

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<sup>3</sup> In the ANT-literature there is a debate about the differences between actors and actants (Callon & Latour, 1992; Collins, 1992; Walsham, 1997). In this thesis I do not made a distinction between them and I use the term actants for both actors as well as actants.

or imperialism), as long as an actant does something and makes a difference in a state of affairs (Latour, 2005; Potts, 2009; Vries, 2016).

To trace assemblages of actants and analyse how stabilization within these networks is achieved, nonhumans should also be given the opportunity to “talk” (Latour, 2005, p. 80). To be more precise about how this can be achieved within ANT, two other terms need to be introduced first. As mentioned above, actants interact within networks of other actants. However, their agency, importance and intimate nature can be different in each network. According to Latour (2005, p. 39), actants can perform as intermediaries or mediators in a network.

An actant that performs like and intermediary, “transports meaning or force without transformation” (Latour, 2005, p. 39). An intermediary can be considered as a stabilized network: defining their input is enough to define their output (Vries, 2016). In a stabilized network, actants work together in such a way that from a distance they look like a single actant rather than multiple actants working in synergy (Löwer, 2006).

In many cases, the nonhumans, commonly identified as “material objects” and “technical artefacts” (Vries, 2016, p. 90), perform like intermediaries. They help to stabilize social order, this because their behaviour is predictable and uncontroversial, they present no surprises and actants can rely on them (Vries, 2016). Examples that could be considered as stabilized networks are: a doorbell, a mobile phone and even a scientific paper (Booth et al., 2016). This because most of the time they are viewed as a single working actant, rather than a network of electronic components and human interventions (Law, 1992).

As mentioned above, actants can also perform like mediators. Mediators “transform, translate, distort and modify the meaning of elements they are supposed to carry” (Latour, 2005, p. 39). Defining their input is usually not a good predictor to define their output. So every time, their specificity has to be taken into account (Vries, 2016). Often you will recognize the mediating role of actants when there is a shifting alignment between actants in a stable network, because then the network will become unstable, breakdown or reform in different patterns (Booth et al., 2016). Below a small example where a stable network becomes an unstable network, from Vries (2016);

For instance, you meet with a friend at his place. Of course, you take for granted that the house of your friend has a front door. So why should your friend bother you to mention that you must enter his house through the front door? However, watch what

happens when the doorbell does not work, or when you forgot to bring the key. Then surely, you will become aware of the door's role. Suddenly, you discover that the door is doing something: it is hindering your entrance to your friend's house. (p. 90-91)

It is interesting to see in this example the mediating role a nonhuman actant plays in a certain network. This role came to light, due to a small breakdown (the doorbell was broken) or accident (forgot to bring the keys). Accidents, breakdowns as well as strikes can provide a view on the mediating role of actants that under normal conditions perform an intermediary role (Latour, 2005, p. 80-82 & Vries, 2016). To show their role as mediators and by 'letting them talk', ANT-analysts can detect what reassembles the social.

According to Latour (2005, p. 68), ANT "follows the actants in their weaving through things they have added to social skills so as to render more durable the constantly shifting interactions". Furthermore, ANT can be used to "[...] sensitise researchers to complex and multiple realities which might have otherwise remained obscure [...]" (Nimmo, 2011, p. 109). By tracing associations and analysing how stabilization in networks is achieved an ANT-analyst can make up the social. "A good ANT is a narrative or description in which all the (actants) do something and do not just sit there" (Latour, 2005, p. 128).

In this thesis, malfunctioning products that under normal conditions perform as intermediaries in networks will get the chance to 'talk'. By following malfunctioning products, I want to show their role as mediators and intermediaries within given networks. Furthermore, I want to trace the Repair Café network and its actants. By tracing assemblages of actants and analysing how stabilization within networks is achieved I want to detect what reassembles the networks of the products, the product owner(s) and the Repair Café reassembling the social.

## 4 Methodology

In this chapter the methodology and method of this thesis is described. As mentioned previously, ANT is both a theory and methodology (framework) combined. The first section of this chapter describes how ANT can be used as a methodology. In this section I also explain why I did or did not take all the methodological insights of ANT into account in this study. The second section is about the narrative research method used in this study, since ten narratives interviews have been conducted for this study and eight have been thematic analysed. In the third section of this chapter the data collection and research procedure are described. The fourth and last section of this chapter entails the strengths and limitations of the methods used for this study.

### 4.1 Actor-Network Theory as methodology

As explained, ANT has its own epistemological and ontological view of the world (Law, 1992). ANT views the world as assemblages of actants and networks and can be used by researchers as a theoretical lens. Aside from using ANT as a theoretical lens, researchers who are engaged in ANT also suggests that exactly these actor-networks need to be traced in empirical work (Walsham, 1997). Through turning ANT into a methodology, ANT can also be used as a methodology by researchers. However, how researchers have to use ANT as a methodology is not explicitly explained by Latour, Callon or Law (Gad & Bruun Jensen, 2010). Furthermore, an explicit research method also lacks within ANT (Booth et al., 2016; Cresswell et al., 2010; Jackson, 2015). Still, in the remainder of this section I will introduce five salient ANT methodological insights that are provided by authors who have been engaging ANT in their study. In addition, I directly explain how I engaged these insights within this study.

A first important feature of ANT is that it studies situations where it is still unclear what or who an actant is, how it co-exists with other actants and why it acts as it does (Löwer, 2006; Vries, 2016). Questions that ANT-researchers must raise is: what or who is doing the action? where does the action takes place? and why is it doing the action? To be able to answer these questions, the researcher has to be as undecided as possible about what makes up the social and has to be prepared for surprises (Vries, 2016).

In this study I used the first feature of ANT to frame my sub-research questions. To be able to answer these questions, I decided to visit Repair Café Wageningen twice to observe the actants I was looking for in this study (broken products brought to a Repair Café meeting to get repaired). Because beforehand I did not know what the roles of actants were in networks and



how/why actants acted as they did I tried to be as undecided as possible about what makes up the social of the product, the Repair Café visitor and the Repair Café, while observing at the Repair Café meetings.

A second important feature of ANT is that it does not embrace a participant (actant) sampling process (Sheehan, 2011). ANT researchers have to “follow the actants themselves” (Latour, 2005, p. 12), rather than choosing a priori which actant to follow. Furthermore, Löwer (2006) found that ANT appears to possess the most analytical functionality when it is applied within an enclosed environment, by which actants and the actions they do within networks are localized to the direct geographic area. Thus, by following actants (within a geographically enclosed environment), the actants of importance (gatekeepers) will come to light. Because they will demonstrate their importance and agency in the way they enrol, shape or modify other actants in the translation process (Booth et al., 2016; Ruming, 2009). In addition, “it is suggested that a dynamic co-constructed schema of the various motivations possessed by actors can be elucidated, by exploring associations, bonds, and linkages they form among a diverse network of spatially aligned interests” (Walsham, 1997 in Booth et al., 2016, p. 115). Because of this dynamicity, actants cannot be predicted or chosen a priori (Ruming, 2009). So, by “following the actants themselves” (Latour, 2005, p. 12) a mechanism is created to facilitate sampling within ANT.

In this study I chose to find the actants of importance (gatekeepers) in a geographically enclosed environment, namely Repair Café Wageningen. I did not truly “follow the actants themselves” as recommended by Latour (2005, p. 12). Rather, I chose which actants I wanted to follow during two Repair Café meetings. More specific, I chose to follow nonhuman actants, the broken products people brought to the Repair Café meetings. Furthermore, the narrative interviews I conducted for this study were also in geographically enclosed environments, namely the place where the actants in normal conditions (when they are not in disrepair) acted in. I chose this method for several reasons:

Firstly, since this thesis specifically focusses on malfunctioning products. We live, as mentioned before, in a so-called throw-away society and by repairing malfunctioning products change can be made to this unsustainable event. By following broken products at the Repair Café, I wanted to find out what their roles are within given networks. Also, to find out why they are getting repaired and why they are specifically getting repaired at the Repair Café.

Secondly, I recognized the malfunctioning products as gatekeepers within Repair Café meetings. The broken products brought to a Repair Café have agency since they shape other

actants in the network of a Repair Café e.g. the repair technician, the knowledge the repair technicians use, and the equipment and materials needed to repair the product. Furthermore, I also saw them as gatekeepers within the networks they are typically functioning in. As explained in chapter two, accidents, breakdowns as well as strikes can provide a view on the mediating role of actants that under normal conditions perform an intermediary role (Latour, 2005, p. 80-82 & Vries, 2016). To show their role as mediators within networks and by ‘letting them talk’, I was able to understand what reassembles the social of the product, the owner and the Repair Café.

Thirdly, I was not able to truly “follow the actants themselves” (Latour, 2005, p. 12) because it is practically impossible. To follow the actants, in this case the products brought to the Repair Café and understand their full functioning in their networks I would have to observe these up until a moment they are actually being used after the repair. Within the time limits of writing this thesis, this was impossible. Rather, to understand their roles in given networks and to be able to let the products ‘talk’ I conducted narrative interviews with the owners of the product.

A third important feature of ANT is that both human and nonhuman actants have to be treated with the same symmetrical apparatus (Booth et al., 2016; Walsham, 1997). All actants possess agency in a given situation, also nonhuman actants can potentially possess agency over human actants (and vice versa). This because networks within ANT not only consist of interactions between humans, but interactions between human and nonhuman entities (Law, 1992). So, to understand behaviour (why actants behave as they behave) in networks, nonhuman actants must be analysed on the same level as human actants.

In this study I tried to analyse the human and nonhuman actants with the same symmetrical apparatus. However, this was not always possible since the nonhuman actants (products that were brought to the Repair Café) were not able to give meaning through their lack of observation. Giving meaning is a human practice and a product and its meaning can only be known through the user(s)/owner(s)<sup>4</sup> of the product. Thus, to give the products ‘a voice’ and to know their meaning, I interviewed the owner(s) of the products. Through this, the owners were able to explain the network(s) the product were acting in, the roles the product played in their life’s and why they had brought their product to the Repair Café.

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<sup>4</sup> From this point on the owners in this thesis are also the users of the products.

A fourth important feature of ANT is that classical levels of analysis are not being embraced within ANT (Sheehan, 2011). The scale of the studied phenomena (micro- or macro) cannot be defined a priori because researchers have to follow the actants. The appropriate frame of reference and scale will be known when the researcher is tracing the actants and their actions when they are forming a network (Vries, 2016).

In this research I applied this fourth feature of ANT since I conducted narrative interviews. During the interviews with the product owners I did not know a priori on which scale the actants were acting in the forming networks. Therefore, I traced them together with the informants and hereby the scales of this research were defined.

A fifth important feature of ANT is that it lacks, as methodology, an explicit research method (Booth et al., 2016; Cresswell et al., 2010; Jackson, 2015). According to Pollack, Costello, and Sankaran (2013, p. 1126) ANT is “most useful as an approach to sense-making and concept building, rather than concept testing”. As seen in other ANT-studies, qualitative research methods have been used quite often (Beard, Scarles, & Tribe, 2016; House, 2018).

In this explorative study, qualitative research methods were chosen because of the complex issue that needed to be explored. In short, “qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” (Denzin & Lincoln, 2011, p. 3). Qualitative research can be conducted within a research when an phenomenon or concept needs to be explored and understood, or when a detailed understanding of an issue is needed (Creswell, 2013). To establish this detail, researchers have to talk with people at the site where the participants experience the issue under study. Here the participants get the chance to tell their stories unencumbered by what the researcher expect to find or has read in the literature (Creswell, 2013). By reporting the multiple perspectives and identifying the various factors that are involved in a situation, the researcher tries to make an interpretation of the data and tries to develop an holistic account of the issue under study (Creswell, 2013, 2014; Denzin & Lincoln, 2011). Qualitative methods were helpful for identifying the reasons why people wanted to repair their product and why they had repaired their product at Repair Café Wageningen. This since I did not know beforehand the important variables to examine (Morse, 1991).

As has been made clear, I have chosen to not take all the ANT-methodological insights into account in this study. Hence, I have viewed ANT as an analytical technique where I followed non-human actants and tried to understand what they do and what their roles are within given networks. As a researcher, I was continuously questioning often taken for granted

characteristics of actants and accepting the constantly changing nature of reality when I followed the actants (Gad & Bruun Jensen, 2010; Law & Hassard, 1999). Furthermore, I found ANT helpful in framing my research questions, as a guide for data collection and to theorize about potential explanations (Reeves, Albert, Kuper, & Hodges, 2008).

#### **4.2 Narrative research as method**

Narrative research has been used as method in this explorative research. In general, narrative research is a research design in which the researcher studies the mundane lives of individuals and asks one or more individuals to provide stories about their lives and experiences (Riessman, 2008). Narrative research is a method for conducting case-centred research (Denzin & Lincoln, 2011). Because the researcher focuses on particular actors, in specific social places at certain social times (Riessman, 2008). Within this research, a narrative was defined as a chain of events “perceived by the narrator as important and are selected, organized, connected and evaluated as meaningful for a particular audience” (in a particular context) (Riesman, 2008, p. 3). The primary aim for a narrative researcher is to understand how humans create meaning in their lives (Creswell, 2014). “By telling stories, people recall what happened, put experience into sequence, find possible explanations for it, and play with the chain of events that shapes individual and social life” (Jovchelovitch & Bauer, 2000 p.57). The narrations are rich in data, as they are referring to personal experiences, and tend to be a detailed description of past actions and events (Jovchelovitch & Bauer, 2000). In the end, often the researcher puts the narrations told by the narrator into a narrative chronology. The final created narrative often entails the combined view(s) from the participants life and the researchers life (Clandinin & Connelly, 2000).

In this research I used narrative research as method because of several reasons. Firstly, it fitted well within the ANT methodology. When doing a narrative research, detailed data of specific actions and events of the lives of individuals is gathered. By gathering this data consisting actor-networks were able to be discovered. Secondly, it fitted well with the aim of this research, to understand why people repair their product at a Repair Café. By giving meaning to past experiences and actions participants were able to explain why they had wanted to repair their product and why they had chosen to get their product repaired at the Repair Café.

The data (the narrations) in this thesis were collected via narrative interviewing. In narrative interviewing the interviewees (also called informants within the narrative interview) were asked to tell stories about some significant events in their lives that were related to the

product(s) they were repairing at Repair Café Wageningen (Jovchelovitch & Bauer, 2000; Riessman, 2008). Also, the informants were asked to tell their experience at the Repair Café. The provided stories of the informants were then used to guide the interview (Denzin & Lincoln, 2011; Riessman, 2008). Through this, the informants were able to provide answers they found meaningful (Denzin & Lincoln, 2011; Riessman, 2008). Eventually, the gathered data in this research was transcribed and afterwards thematically analysed. Within thematic analysis the focus is on the content of the narrative, namely ‘what’ is said rather than how it is spoken (structural analysis) (Riessman, 2008).

#### **4.3 Data collection and research procedure**

To be able to find the actants I was looking for in this study and to conduct narrative interviews I had to visit and observe a Repair Café meeting. Consequently, I visited the Repair Café in Wageningen, organized by roughly eight volunteers each two weeks on a Friday afternoon from 13.30 till 16.00 o’clock in community centre ‘Ons Huis’. Before I went there to observe and ask visitors to participate in this study, I visited Repair Café Wageningen first to explain my study and to ask the initiator of Repair Café Wageningen for permission to use the Repair Café meetings to ask visitors for participation in this study. The initiator of Repair Café Wageningen gave permission.

As a result, in week 18 and 20 of 2019 I visited Repair Café Wageningen to observe the Repair Café meetings and to ask visitors for participating in this study. The participants of this study were intuitively selected and asked to take part in this study based on having a malfunctioning product which has been brought to one of the Repair Café meetings. In total, eleven visitors were asked to participate in this study. While asking I explained shortly the goal of my study, what the interview was about, the time the interview would take, that I would use fictitious names in this thesis to keep the participants anonymous and asked for permission to record the interview (if they wanted to participate in this study). Ten visitors responded positive to my request and with this group I exchanged contact details and made an appointment to conduct a narrative interview at their house/apartment. This interview setting was deliberately chosen as these were the places the products under normal conditions act in (when they are not in disrepair). Besides, according to Riessman (2008) and Jochelovitch and Bauer (2000) these personal settings stimulate and encourage the informants to tell their stories. One interview was scheduled the day after the Repair Café meeting was organized, whereas the other interviews were scheduled the following week or the week thereafter.

Before I conducted the first narrative interviews, I made a small interview guide for myself. Since it was my first time conducting a narrative interview and I wanted to be prepared well. Also, I made an consent form for the informants in which I informed them about the goal of this study, what is expected of them during the interview (to tell a story about their product and the Repair Café meeting) and informed them of the opportunity to withdraw from the study at any time. Furthermore, on the consent form I asked whether they agreed on recording the interview and taking a photo of their product to use in this thesis. Also, on the form I asked if the informant was interested in reading and checking the interview transcript before I would thematically analyse it.

Eventually, the first narrative interviews took place in week 19. Before starting the interviews, the informant(s) and I first had a cup of tea and a social talk. Thereafter, I explained the details of the consent form which I brought to the interview. The informants were given time to read through it and sign it. Subsequently, I showed them the recorder and started recording whenever they said to be ready to start the narrative interview. Each narrative interview I asked the same first question to the informant, such as: ‘Can you tell me the story of your product? When did it enter your life? What kind of life did the product have until the point the product broke and you thought of repairing it at the Repair Café?’. The informants started to tell their story and I began to listen actively to their stories. I did not interrupt them and only asked open-ended questions after a coda (if a silence fell or if the story was, according to the informant, finished). I stopped with recording after the last question was answered and the story was ‘complete’, according to the informant and me. Usually the stories were ‘complete’ after half an hour / forty-five minutes of storytelling. After the recorder had been turned off, a small talk with the informant began and a photo was made of the product. Generally, I left the house of the informants after roughly one and half or sometimes even three hours and thanked the informants very warmly for their time and being so open with me.

Eventually, twelve product stories were told and recorded since two participants had brought two products to repair at the Repair Café. Six participants in this study indicated in the consent form to want to read the interview transcript prior to the thematic analysis. Finally, ten stories could be thematically analysed in this study. This because one participant had adjusted his revised version so extremely that I could not analyse the interview anymore. While another participant took fairly long to adjust the narrative interview thus, I was no longer able to include her in this study. The ten product stories I thematically analysed can be found in chapter five.

#### **4.4. Strengths and limitations**

In this section I share some strengths and limitations of my role as researcher in this study, the research process and the research method.

Firstly, I will reflect on my role as researcher in this study. Since it is important to be reflexive on one's own role as a researcher, as our multiple theme's (social, political, cultural) influence the different stages of the research process (Davies, 2012). According to Davies (2012);

Reflexivity at its most immediately obvious level refers to the ways in which the products of research are affected by the personnel and process of doing research. These effects are to be found in all phases of the research process from initial selection of topic to final reporting of results. (p. 4)

For example, the decision of writing a thesis about a topic which I find interesting and makes me enthusiastic to research, has influenced how I formulated the main and sub research questions of this thesis. I formulated and framed the research questions in a positive way because I have (as a person and researcher) a positive point of view towards repairing and Repair Café's. I think I have positive perspective towards repairing because I grew up with repairing and feel repairing contributes to a sustainable lifestyle. For example my mom always repaired our clothes and my dad repaired our bicycles. Also, how I presented the findings, the narratives, in this thesis are probably affected by my positive mind about repairing and Repair Café's. Even though I was aware of this during the research, I may have been biased while analysing the results.

Particularly, I became aware of my role as researcher during meetings I had and the e-mails I have send to my supervisor in which I critically reflected on the research process. For example, the e-mail about my first experience at the first Repair Café meeting. I knew I had to make an 'on the spot choice' of whom to ask for participation in this study. Beforehand I told myself I want to be guided by the products people bring to the Repair Café, nevertheless I became aware the owner of the product also influenced me. Since I also took the product owner into account while choosing the participants. I critically reflected on this in the e-mail to my supervisor and told her that the next Repair Café meeting I would follow the products and not the owners. Because I critically reflected on this I became aware of it and adhered to this the second Repair Café meeting. In a similar vein of sending e-mails and having meetings with my



supervisor I also critically reflected on the conducted narrative interviews, as we always had contact how an interview went and how I performed as researcher. These practices, the e-mails and the meetings with my supervisor, encouraged methodological awareness to me (Seal, 2002) and therefore strengthened this study.

Also, I will reflect on the research method of this study. When doing narrative research narrative researchers often perform or publish longer stories from individual interviews, unlike qualitative researchers who usually present short fragments from interviews in published work (Denzin & Lincoln, 2011). Conducting narrative research therefore increases the risk informants will feel exposed or vulnerable by narrative work (Denzin & Lincoln, 2011). This occurred to six informants in this study as they indicated wanting to read the interview transcript before analysis. Many indicated the transcript showed more personal stories than they thought they had shared during the interview and therefore this could be seen as a strength of this research method. As a result, some informants wanted to withdraw from the study. Eventually, one narrator had sent a revised version which he agreed on to be used for this study. However, the revised version was so extremely adjusted that I could not analyse the interview. While another narrator took fairly long to adjust the narrative interview thus I was no longer able to include it in this study. As a result, eight narrative interviews could be analysed thematically in this study, while ten narrative interviews were conducted. Because not all the interviews could be thematically analysed in this study this can be seen as a limitation when doing narrative research.

To counter the withdrawal of informants, Lieblich, McAdams, and Josselson (2004) suggested in Clandin and Murphy (2007) that researchers should return to the informants to inform and ask again for permission to use the stories when they have analysed the stories, because narrative researchers are often unsure from the start how to use the collected narratives. At the end of the analysis researchers know how they plan to present and publish the work. I think if I had taken Lieblich's suggestion into account maybe less informants would have wanted to withdraw from the study. However, I also think it is time consuming to first analyse all the narratives and afterwards ask for permission again. Besides, there is still a chance narrator(s) withdraw from the study because the narrative work can still feel exposed or vulnerable.

Another limitation of doing narrative research according to Polkinghorne (2007) is that informants are selective in the meaning narrated because audience as well as context shape the meanings expressed by the informants. Therefore, this can be seen as a validity issue in narrative

research. However, by conducting the narrative interviews at the houses/apartments of the participants, the participants were able to tell their story in a personal setting (context) which offers, according to Riessman (2008) and Jochelovitch and Bauer (2000), the optimal conditions to tell a story. According to Polkinghorne (2007) also audience shape the meanings expressed by the informants, as participants are often resistant to reveal their feelings to strangers, to protect a positive image of themselves. However, as researcher and interviewer I did not feel like the participants were resistant to reveal their feelings to me because I am aware of the fact that people easily feel comfortable around me. I realised this during the interviews as the participants were telling their stories in detail and answered all the questions I raised. Also, I realised their openness after I had sent the interview transcripts to the six participants and received responses of them that they were surprised on the extent to which personal details were shared. This shows that there was an open and confidential atmosphere during the interviews, as they felt confident in telling their personal story to me. I think this happened due to my personality and open-mindedness as researcher. Therefore, I think the detailed narratives are a strength of this study.

## 5 Results

In this chapter the results of the eight narrative interviews will be given. The results show the narratives of the ten products that have been brought to Repair Café Wageningen. Each section in this chapter will tell the story of the repaired product. It analyses the moment the product entered the lives of the informant, the moment the product did not function properly any longer, the moment the informant thought of repairing it at the Repair Café and the moment the informant visited the Repair Café to repair the product. From section 5.6 the narratives can be different compared to previous narratives since the informant have visited the Repair Café for the first time.

### 5.1 Zipp sweater



*Figure 3 Example of the zipp-sweater Olivia wanted to repair (Rei, 2019).*

About five or six years ago Olivia bought a zipp sweater for her daughter at a sports store. Olivia's daughter used the sweater for multiple years. Yet, at some point in time this year, the zipper of the sweater broke. Olivia then asked herself what to do, as she narrates;

*“The sweater we are talking about now, yes, I believe that I have bought it at a sports store and it is five or six years old for sure. And now, the zipper broke. And then the question arises, what should I do with it?”*

Olivia explained that she first calculated the price for repairing the sweater at a tailor shop. She found out that a new zipper and sewing it would cost her twenty-seven euros. She then asked herself whether it is worth it to repair the old sweater or rather to buy a new one.

Also, she explained that if she wants to buy a new one it might turn into a misery since it can take some time before she finds something that fits her daughter well;

*“[...] our daughter suffered from a brain disease and became disabled just after her graduation, she is now in a wheelchair and the experience is that it is very difficult for wheelchair users to buy good clothing [that fits well] in a clothing store.”*

Olivia made clear that there are some requirements she needs to consider before buying a new sweater for her daughter, as she described during the interview;

*“In terms of outerwear, uhm, well she sits in a wheelchair, she is paralyzed on her right side, so you first have to wriggle the right side in a sweater or a cardigan and then the left side. The requirements for a sweater or a cardigan are that the sleeves must be wide and accessible, we cannot do anything with tight sleeves.”*

Besides, Olivia also needs to take the caregivers who dress her daughter into account before buying a new sweater, as she explains;

*“Uhm, she lives in a care home and people do not have the time to dress her with different layers of clothing or trinkets, I also have to take this into account.”*

For these reasons, Olivia is happy if a piece of clothing which fits her daughter well, can be repaired. Thus she does not have to spend time and effort to search for a new sweater.

*“So when she [Olivia’s daughter] has a piece of clothing, such as the sweater, that is wide enough, that can open easily to put her arm through and which is also quite warm, I want to honour that piece of clothing.”*

Another reason why Olivia thinks it is important to repair her daughter’s sweater is because Olivia grew up with repairing as she is a so called war child. During Olivia’s childhood the government issued ration stamps to citizens to obtain commodities short in supply. At the time the textile stamps were all used by Olivia’s family, they repaired and recycled the textiles as much as they possibly could. For example, if her sister outgrew a piece of clothing, the

piece was adapted to fit Olivia or her little sister. As a result of her experiences as a child Olivia still tries to repair, recycle, and properly maintain belongings as long as possible.

*“So I already learned how to recycle when I grew up, because I am a war child. Thus, I learned to be very careful with stuff and to repair what needed to be repaired and to change what needed to be changed.”*

For this reason, Olivia tried to properly maintain the zipper of the sweater by putting oil or Vaseline through it. According to her, this makes it easier to pull the zipper and it is less likely to break.

Moreover, Olivia thinks it is a shame if people dispose products if these are used once or often but not properly maintained. As products cost energy, labour and transport. Besides, she mentioned using products only once and disposing it does not benefit the environment. In Olivia’s opinion some people have become wasteful and lazy and dispose products because of luxurious lives, as she narrates;

*“[...] it is often a matter of laziness. Right, you could say; ‘well let’s get rid of it and I will get a new one.’ Especially, since you can order anything at the kitchen table to get it delivered in boxes at home.”*

According to Olivia, some people do not realize the products history and what it had cost to produce it. She thinks people could bring unneeded products to the Salvation Army or a thrift store to reuse it, otherwise there is still other market prospect.

Also, Olivia mentioned she regularly visits the Repair Café to repair broken products or to ask repair advice. For this she finds the Repair Café a very useful organization. Besides, she enjoys the ability to learn how to repair broken products. For example, she had once asked Charlotte, a Repair Café seamstress, how to hem her husband’s pants. Charlotte showed it and now Olivia has the knowledge to hem pants.

Additionally, Olivia finds the Repair Café a nice organization to get products repaired since the repair technicians have a lot of knowledge, experience and persistence to repair it. Olivia explained no matter what you will bring to the Repair Café, the repair technicians always would try to repair your product. Meanwhile, she gets inspired by the repair options through the products people bring to the Repair Café.

In addition, Olivia thinks the Repair Café is a nice organization since the volunteers are reliable which causes the Repair Café to be personal, as she narrates;

*“Well it is not a come and go of volunteers, so you can call them by their name. You know, if you want to repair a clock, you go to Fin [...]. Sewing machines can be repaired by Alex, small technical things can be done by Max. Do you have something complicated? Noah will fix it. The bicycle repairmen is also available, and do you have clothing problems? You go to Maria or Charlotte.”*

Because the volunteers are reliable to the Repair Café in Wageningen, the general ambience is personal which creates a personal connection between volunteers. According to Olivia the volunteers enjoy each other's presence causing a pleasant environment for the visitor.

While Olivia mainly visits the Repair Café to repair a broken product, she often visits to have a chat with Charlotte, one of the Repair Café seamstresses. She finds this very pleasant and does not mind to spend her spare time on this since she has time as pensionary. Yet, if the Repair Café would be more than ten minutes away of her house, Olivia would not do this. Olivia acknowledges more people visit the Repair Café to socialize since there is a large table for people to sit and have a chat.

Also, Olivia mentioned she sometimes visits the Repair Café to donate repair materials like buttons, zippers, needles and fabrics. She donates to the repair technicians to be reused in one of their repairs.

Because Olivia wanted to repair the sweater, she first examined it by herself and concluded the pulling mechanism of the zipper was broken and a new zipper was needed. Yet, she did not think it was worth the money to have the old sweater repaired at a tailor shop. Because Olivia did not know what to do next, she chose the Repair Café to ask for advice.

When Olivia visited the Repair Café to ask advice for her daughter's sweater Maria, a Repair Café seamstress, had a look at it. Maria confirmed the sweater was in need of a new zipper and searched for a sturdy zipper in her collection of materials. She searched for a sturdy zipper because she knew a sturdy zipper is more convenient to use for the caregivers of Olivia's daughter compared to a thin zipper. Finally, Maria found a metal zipper which had the right length for the sweater. She gave the zipper to Olivia with advice what to do with the broken zipper, as Olivia explains;

*“Yes, the task was to take the zipper out and string the new zipper in and uhm, before I want to sew it, I first have to show to Maria if I have done it correctly. So I stick to that [...]”*

Thus before the next Repair Café meeting Olivia will do the task Maria asked her;

*“So if I can do it this week, and the Repair Café is next week, then I think I have to say [to Maria]; ‘look what I have done! And this is how it looks, what do you think? Is it ok?’”*

Therefore, Olivia will yet again visit the Repair Café to discuss with Maria on stringing the new zipper in the sweater.

### **5.1.1 Summary**

Olivia grew up with repairing, recycling and properly maintaining products. Nowadays, Olivia still repairs, recycles and properly maintains products in her household. Therefore, Olivia wanted to try to repair her daughter’s sweater. Also, she did not think it was worth the money to have an old sweater repaired at a tailor shop. Furthermore, she did not think it was worth her time and effort searching for a new sweater. Olivia’s daughter is disabled, paralyzed on her right side and is in a wheelchair. For this there are some requirements for a sweater to fit her daughter well. Olivia’s daughter is dressed by caregivers and therefore lack the time to dress her daughter with multiple layers of clothing.

Olivia visits the Repair Café regularly. She visits it when she is unsure how to repair a product by herself, as was the case with the sweater. Besides, Olivia sometimes visits the Repair Café without bringing any broken product. She mentioned she often visits it to have a chat with Charlotte because she is retired and has time. Yet, Olivia explained that if the Repair Café would be more than ten minutes from her house, she would not go. Also, Olivia sometimes visits the Repair Café to donate repair materials.

Olivia explained she enjoys visiting the Repair Café since it is very useful; she can ask for repair advice on any product she wants to repair and can learn how to repair it. Through this, she has the knowledge if a product is in need to be repaired. Furthermore, she enjoys visiting it since she thinks it is a nice organization; the repair technicians have a lot of knowledge, experience and persistence to repair products. Olivia knows she can trust them with

the products she wants to get repaired. Besides, she thinks it is a nice organization since Repair Café volunteers are reliable in their stay. For this reason the visitors get to know the volunteers by name and makes the experience personal. Furthermore, the relationship the volunteers have with each other causes it to be fun and pleasant to visit the Repair Café.

Olivia explained a lot of people visit the Repair Café to socialize. She thinks this is because there is a large table for people to sit and have a chat with each other. Olivia is inspired and aware of the repair options at the Repair Café by seeing all the products being repaired.

## 5.2 CD & DVD player



Figure 4 Luke's CD & DVD player (own photo).

Originally, the CD & DVD player was owned by the brother of Luke. When Luke's brother passed away, belongings of him were divided. One of the belongings Luke inherited was the CD & DVD player. Luke thought of it as an interesting device but did not explain during the interview why he thought of it as an interesting device. At a convenient point in time the CD & DVD player started to play a role in the life of Luke's family, as Luke narrates;

*"[...] but it actually came at a suitable time, because we had, we are constantly busy with renovating all kinds of things here, we have our own stereos, they are still in boxes, and this one was small and compact. So it was very practical to use."*



Luke's family used the CD & DVD player for multiple years. Especially their son made great use of it when he was younger. He listened to audiobooks and watched Barba papa videos on it. Nevertheless, at some point in time the CD & DVD player broke. Luke wanted to repair it by himself, but did not know how to. He remembered the last time he had repaired something, at the time their video recorder broke it was hard to find a repair technician. Eventually they had found a sheltered workshop<sup>5</sup> ten kilometres from Wageningen. At the sheltered workshop it was possible to get the video recorder repaired for a small fee. Yet, at the time the CD & DVD player broke, Luke and his wife also received a leaflet from Repair Café Wageningen from their sons primary school. The leaflet was seen as a stroke of luck and because the Repair Café technicians also enjoys repairing old devices, Luke chose to visit Repair Café Wageningen for the first time. Luke visited the Repair Café to repair the CD & DVD player.

Years passed and at some point in time this year, the CD & DVD player broke again, this time the input would not open. Luke explained he knew there was a chance something could break since the CD & DVD player is probably more than ten years old. Still Luke and his wife wanted to repair it since the device remains suitable after it is being repaired, as he describes;

*“Actually, I still find it an interesting device because it is satisfactory, it does not need to be renewed, and uhm therefore I want to repair it every time. [...] It has a lot of functions that are still relevant today. It still remains, right, even though it is an old device [...]. So yes, why would you do it away? If that [all the options the CD & DVD player has] still functions. [...] I think it is a shame to get rid of things while they still are still relevant today.”*

Furthermore, Luke and his wife find it a pity to dispose an entire product if only one part malfunctions. With the CD & DVD player it was the case and only the input property would not open. The CD could still be listened to, just like the option to insert an USB to listen to music or watch videos. Besides this, Luke also wanted to repair the CD & DVD player since he was aware of the possibility to repair it, as he explains;

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<sup>5</sup> A sheltered workshop is a workplace to employ people who cannot work in a regular company. People that work in a sheltered workshop are people with a distance from the labour market or that have a disability.

*“I do not want to do it away, it is not necessary, because it can be repaired. [...] It still works, right, and it is not made from plastic or anything, it can be repaired, that is for me always a reason to, we actually do that with all kinds of things we own, to keep repairing it. If it is possible.”*

In general, Luke and his wife always try to repair products if possible;

*“I find it important to just keep trying. To keep repairing something within the available possibilities. [...] It is rather, uh, look for something what we can buy extra and use it as addition. Instead of just get rid of the entire device, yes. [...]”*

For example, Luke explained they always try to repair their Senseo coffee machine. Each time a part of the coffee machines breaks, a part of another coffee machine bought at a thrift store nearby is used. The extra coffee machines are stored in the basement for future use. Due to this Luke and his wife are able to repair their coffee machine anytime.

Yet, Luke explained it is sometimes no longer possible to repair a product due to a lack in available parts;

*“[...] I think this is something which you will increasingly come across, the point that something can no longer be repaired. Even though you would like to have it repaired but the parts are lacking or uh, you have to build such a large inventory by yourself, to be able to replace something again [...]”*

As an example he mentioned a handheld vacuum cleaner of which the battery had broken. The device was irreparable because the battery could not be found or bought elsewhere.

Additionally, Luke mentioned he cannot repair products like a camera or Bluetooth headphone because of the software and processors in these devices. The technology is too advanced for Luke so if the device breaks he lacks the knowledge to repair it. In his opinion it is a shame since the device could still have worked if the parts could be repaired or replaced. Furthermore, he thinks it is a shame to dispose devices because a lot of energy and production time has been put into it. Therefore Luke tries to do a check whether a product can be repaired before really disposing it, as Luke mentioned:

*“Sometimes it is simply no longer possible, that things are just broken. Really broken. Since different types of broken occur. Yet, I find it important to check at first. [...] But if it is no longer possible, then yes, it is just a pity and then it simply goes away.”*

Luke explained if a product is irreparable Luke and his wife replace it for a new or second hand one. They prefer to replace a product for a second hand one. However, a new product is sometimes more environmentally friendly instead of a second hand one. Therefore Luke and his wife always make a trade-off in their choice. As an example Luke’s refrigerator recently broke and Luke was debating on buying a new or second-hand one. Eventually, the new refrigerator was chosen due to its sustainable and financial benefits.

At the time the CD & DVD input was broken, Luke at first checked whether it could be repaired before disposal and tried to repair it. However, after opening the device, he immediately knew repairing the device was too difficult for him. For example during the repair he thought he would be unsure in remembering the correct repetition of electrical contacts. Since Luke could not recognise if the CD & DVD player was still repairable, he decided to visit the Repair Café;

*“I first tried to repair by myself, I completely opened it, just like the repair technician did [the first time Luke visited the Repair Café], but then I saw it already, and I thought jeez this is a bit too much, I will not remember which contacts I dismantled and where I have to secure them again. For this reason I visited the Repair Café.”*

Luke expressed his preference for repairing the product at the Repair Café instead of a sheltered workshop or a store. As he finds the Repair Café convenient because it is easily accessible. He appreciates broken products are repaired on the spot at the Repair Café. Through this, he directly learns more about his product, as he narrates;

*“In this respect the Repair Café is really convenient, you can go there, they can repair it on the spot, you can observe the reparation, he [the repair technician] will also explain to me how it works, so I already know more about the device, so that is also a good thing they do. [...] So it is a very funny way to get a device back to use. [...] And uhm, yes, it is for us of course easily within reach in Wageningen. You just jump on your bike and go there”.*

Moreover, Luke finds the Repair Café is also approachable. Repair Café Wageningen is located in a community centre, which makes it, according to Luke, independent and easy in its service. He likes the atmosphere which causes all visitors to ask and receive information about any product;

*“Why do I like it [the Repair Café] that much, well in terms of its atmosphere it is very, uhm, open, uhm, searching along, in terms of helping you to find what the problem actually is, uhm, well its really approachable, you can just come there with a question and you can easily approach someone [...].”*

Luke appreciates how easy it is to approach and ask a Repair Café technician for advice. In his opinion the advice at the Repair Café is more objective compared to advice at a store. According to Luke, a store has commercial interests. Luke gave an example of him asking a question in a store with no response. At the time the employers in the store told him they were unable to answer his question and he was advised to search the internet or send the device to a repair shop;

*“But which question should I raise on the internet? Uhm, I do not know, what should I ask? I mean if there is someone at the Repair Café who can help me and show me what the problem is, I think that is pretty useful.”*

Besides, Luke and his wife have already send a product, a house phone, to a repair shop. At the time they did this a fee of seventy euros had to be paid in advance. Luke found this strange since he did not even know if the phone was repairable. He questioned the service and the type of business model this is based on. He thinks stores only want to sell and if a product is broken, the store rather wants you to have your broken product thrown out and buy a new one instead. According to Luke, repairing is really getting discouraged in this way.

When Luke decided to visit the Repair Café it took a while before he actually visited it. Luke explained the Repair Café meetings are organized once every two weeks on a Friday afternoon and once missing a meeting it takes another two weeks. Because Luke was busy and wanted to visit it by himself he missed a few Repair Café meetings. A visit to the Repair Café had to fit into Luke’s agenda, as he explains;

*“So, it took a while before I was able to repair it. But this had to do with, when is it, when do I have time and when does it fit in the agenda [...]”*

As a result, Luke explained that it can sometimes take a while before a product is repaired. Finally, the moment Luke wanted to repair the CD & DVD player was at the time he wanted to listen to his recently newly bought Amy Winehouse CD's. Therefore Luke decided to visit the Repair Café during the Easter Holidays, as he narrates;

*“Furthermore, I had bought new CD's which I wanted to listen to. [...] Yes, and then you have, well that was kind of funny this time, there was already a cd in the device so every time when we turned it on we listened to the four seasons of Vivaldi. So I thought; ‘oh, yes, no that one we know already’. Thus that was also a kind of; ‘well this time we know Vivaldi pretty well’. Yes, those moments exist. [laughs] Yes, when things break, it just has to fit in terms of planning and timing. [...] So, eventually, I went there [the Repair Café] during the Easter holidays when everything fell together.”*

At the time Luke visited the Repair Café he had to wait a while before it was his turn. He had some time to look around and get surprised and inspired by the diversity of products people bring to the Repair Café for repair. Scissors were sharpened, sewing machines were cleaned and clothing were sewn. He liked to see the other possibilities compared to just repairing electrical appliances. Furthermore, he was surprised by the presence of a younger aged repair technician at the Repair Café. This because a lot of Repair Café technicians are older aged and pensioners. Moreover, Luke was surprised by the diversity in age of the Repair Café visitors. For example, he did not expect young aged visitors since he thinks young aged people replace broken products more easily than repairing it.

When it was Luke's turn Alex, one of the Repair Café technicians, examined Luke's CD & DVD player. He opened the device and after an hour of examining it, he concluded repairing the CD & DVD player would take longer than the actual Repair Café meeting lasted. Alex suggested to repair the CD & DVD player at home and told Luke that he would bring the CD & DVD player to Luke's house if he had accomplished the repair. Luke did not find this a problem and a week later Alex came over to Luke to hand over the repaired CD & DVD player.

Luke was amazed that the CD & DVD player was repaired and gave Alex stroopwafels<sup>6</sup> to thank him.

Luke would have found it a pity if the CD & DVD player could not be repaired, because the CD & DVD player reminds him of his brother. Also, they have always used it and Luke and his family has nice memories of it. Moreover, Luke would have found it a pity since the CD & DVD is still usable (when repaired).

Luke finalised with his opinion of him surely visiting the Repair Café if a product cannot be repaired by himself and needs repair advice.

### ***5.2.1 Summary***

It does not matter which product breaks in Luke's home, Luke and his wife always want to repair broken products if possible. For several reasons Luke and his wife would like to repair the CD & DVD player. Firstly, the CD & DVD player has options which are still usable today. Therefore they find it worth it to repair the device. Secondly, only one part of the CD & DVD player, the input, did not work properly. Because Luke and his wife think it is a pity to dispose an entire product if only one part is broken, they chose to repair it. Thirdly, Luke knew the CD & DVD player was repairable because it is not made from plastic.

According to Luke it is sometimes no longer possible to repair products due to a lack in available parts. Furthermore, he explained sometimes the option to repair is also not possible since a device obtains too much software and processors in it. This makes it too complicated to repair.

Luke visits the Repair Café mainly for two reasons. First, if he cannot find out by himself if a product can still be repaired. Second, if he cannot repair a broken product by himself. As was the case with the CD & DVD player.

Luke and his wife knew about the Repair Café because of a leaflet obtained at their sons primary school. They like to visit the Repair Café since it is convenient; it is easy within reach, the repair technicians repair your product on the spot and through this, one learns details about your product and how to repair it. Furthermore, they like to visit it since it is really approachable; the Repair Café is easy in its service, the repair technicians enjoy helping and though this there is as a nice atmosphere.

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<sup>6</sup> Typical Dutch caramel cookies.

Luke did not want to repair his CD & DVD player at a store since stores, according to Luke, do not have the knowledge to repair. Luke thinks that they would have advised him to search the internet how to repair or to send the product to a repair shop and to pay a repair fee in advance. According to Luke stores only have commercial interest and therefore do not give objective advice. On the other hand, at a Repair Café a more useful advice is given.

Luke was surprised and inspired by the diversity of the products one may repair at the Repair Café and by the young aged repairman and the young aged visitors.

### 5.3 Pants



*Figure 5 Benjamin's pants (own photo).*

About twenty years ago Benjamin bought a stretch pants for himself. For years he had worn the pants. Yet one day, while he was hiking in the woods, the bottom of the pantleg got torn by a tree branch;

*"[...] Well it [the pants] is probably twenty years old. But, one day in the woods, the tree branch, the bottom of the pantleg got torn and yes, I do not want to throw it away right."*

For Benjamin it was a waste to dispose it for several reasons. First of all, Benjamin still wanted to wear the pants if repaired. He did not mind the pants may not be fashionable anymore and wants to wear them as long as it is durable, as he explains;

*“[...] it is just a normal pants, uhm, and it was a good pair of pants at the time and yes [...] I do not want to throw it away [...] I just do not like to dispose products, I just want to keep them. Until it is really broken.”*

Besides, Benjamin knew the pants could be repaired since it only needed to be hemmed. Furthermore, he did not want to spend money on a new pair of pants because he prefers to keep the sum in his wallet. In addition, Benjamin thought not buying new pants is better for the environment. He mentioned this without further commenting.

All in all, Benjamin explained that he wanted to repair the pants. Yet, he could not repair it by himself since he does not own a sewing machine. Furthermore, he explained that his wife was always in charge of sewing clothes, but since she is ill and lives in a nursing home she is not capable doing this. For these reasons Benjamin could not repair the pants so he thought of visiting the Repair Café.

Benjamin explained he was familiar with the Repair Café since an acquaintance had told him about it. Afterwards Benjamin had visited the Repair Café to repair a cardigan. Nowadays he always visits the Repair café whenever something needs to be repaired in his household, as he narrates;

*“Yes, [I knew about the Repair Café] by an acquaintance who lives in Wageningen. Through her I found out about it and then I had a cardigan made there for my son’s wedding once. After that, I just got used to going there. I have seen various repairs and if something breaks at home, I just go straight to the Repair Café now.”*

As an example, Benjamin tried to repair a moulinex mill at the Repair Café once. Unfortunately, the moulinex mill could not be repaired and Benjamin threw it away. Yet, Benjamin mentioned that other electrical devices can easily be repaired at the Repair Café.

Benjamin’s main reason to repair his pants at the Repair Café is because he is unwilling and unable to pay for a repair at a tailor shop. According to Benjamin, professionals like tailors at a tailor shop ask a lot of money for a small repair, as he explains;

*“Well I do not want to visit a regular store to pay a large sum for a small repair. I do not want that, if you have to pay fifteen or eighteen euros for a small repair, you can better buy a new pants.”*



In Benjamin's opinion the Repair Café is a pleasant organization to get your products repaired since you may decide by yourself to donate money or not.

*“Actually, the Repair Café is a very pleasant voluntary organization for me, where people yes, instead of paying a large sum for a tailor shop, they can better go to the Repair Café.”*

Benjamin explained in the case one does have enough funds, you may donate money as compensation for the repair at the Repair Café. Yet, he explained in the case one does not have the money to repair, you do not have to donate and may repair products for free. Benjamin thinks that the folks that donate eventually, indirectly also donate for the people that are not generous to the Repair Café. So, according to Benjamin it is smart to visit the Repair Café for people with a low income because they have little to spend and should spend their money wisely.

Furthermore, in Benjamin's opinion the Repair Café is a valuable organization since one can bring any product to the Repair Café. Benjamin explained that the Repair Café technicians are an experienced and diverse group of volunteers and are always willing to help with repair of any product, as he narrates;

*“And then you are able to repair, with or without a contribution, trousers, shirts or anything, electronics, yes you can bring anything and then they [the repair technicians] are willing to do anything as long as it is possible.”*

Benjamin expressed his admiration for the repair technicians since they are keen on helping others without asking compensation. He finds the work they do surprising and thinks that the repair technicians are an excellent example to people who have mechanical knowledge to repair, but are not willing to work for others and thus sit lazy at home.

Besides, Benjamin also really appreciates the Repair Café for the fact that there is free coffee, tea and an appropriate space to repair. For example, he mentioned a large table for people to repair and create pieces of clothing. Benjamin thinks that every neighbourhood or region should start a Repair Café for people to help each other. Furthermore, he also thinks that the Repair Café needs to be supported, since according to Benjamin probably rent needs to be paid for the accommodation and the financial contribution of the clients is not sufficient.

Aside from the fact that Benjamin thinks the Repair Café is a valuable organization in need of support, he also enjoys visiting the Repair Café. Firstly, he finds it very pleasant to visit the Repair Café since it is a central location for people to meet. He mentioned that he enjoys meeting and chat with people and to exchange ideas. As Benjamin narrates;

*“So, I really like being there. You just have a nice time there, there is coffee, tea and people to talk with. For example I saw a person there for the first time, that person was sitting next to me, she wanted to repair something, I wanted to repair something, she had a pair of pants and a shirt, she had two things and I had two things [two products Benjamin wanted to repair], and that is how we started our conversation”.*

Secondly, Benjamin likes to visit the Repair Café to be inspired by the products visitors take to repair. As these diverse products give him an insight in other type of broken products he can take to the Repair Café. He mentioned that he becomes aware and inspired of the repair options by seeing other products getting repaired at the Repair Café.

Prior to Benjamin deciding in visiting the Repair Café, he mentioned that he had received a pair of pants from a friend. Unfortunately, the pants did not fit Benjamin and he explained that a Repair Café seamstress had to hem the pants;

*“[...] it is just a beautiful pants, but it became tighter for my friend. However, it is too big for me, so what did I do, I took it directly, no the next day [to the Repair Café [...]].”*

Thus, the day after Benjamin had received the pants from his friend, he brought both of his pants to the Repair Café. Within an hour both of his pants were repaired by the seamstress. Benjamin explained that sometimes it can take a few hours before your product can get repaired, however in this case it went very fast. Benjamin was very happy with the results and left the Repair Café without donating some money. He explained that he did not donate because he does not have enough money to spend on repairs.

After Benjamin's home arrival he washed the pants and dried it outside. He explained that as soon as the pants are dry he will wear them. He concluded by explaining that if there occurs a situation that the pants or another product needs to be repaired, he would surely visit the Repair Café.

### ***5.3.1 Summary***

In general, Benjamin does not want to dispose products in his household if these can still be repaired. Benjamin wanted to repair his pants for several reasons. Firstly, he still wanted to wear them if repaired. Secondly, he knew the pair of pants was repairable. Thirdly, Benjamin did not want to spend money on buying a new pair of pants. Fourthly, it is according to Benjamin better for the environment.

Benjamin explained he was willing to repair the pants, however was not capable to repair it by himself because he does not own a sewing machine. Besides, his wife was always in charge of sewing and repairing clothes but is at the moment ill and lives in a nursing home. Repairing the pants by himself is therefore not an option.

Benjamin explained that he always visits the Repair Café if a product in his household is in need to be repaired. He visits it because he is unwilling and unable to pay for a repair at a repair shop. According to Benjamin repair shops, like a tailor shop ask a lot of money for a small repair, for the same sum it is possible to buy a new pair of pants. Furthermore, he thinks it is smart to spend your money wisely while having a low income and even smarter to visit the Repair Café since repairing is free. Furthermore, Benjamin visits the Repair Café because he does not own the material and does not have the knowledge to repair.

Benjamin explained that he got acquainted with the Repair Café through an acquaintance of him. He likes to visit the Repair Café since he thinks the Repair Café is a valuable organization; one can bring any product to repair at the Repair Café. Besides, Benjamin really enjoys the fact that the Repair Café technicians are an experienced and diverse group of volunteers who are always willing to help you to repair any product without asking compensation. According to Benjamin, the Repair Café is also a pleasant organization since you may decide by yourself to donate money or not. Furthermore, he appreciates the Repair Café by the fact that there is free coffee, tea and an appropriate space to repair. He thinks it is enjoyable to visit the Repair Café and thinks it is a perfect meeting place for people to meet and have a talk with. Furthermore, he likes to visit the Repair Café since he becomes aware and inspired of the repair options. This by seeing other products getting repaired at the Repair Café.

## 5.4 Shredder



Figure 6 Susan's shredder (own photo).

In 2010, Susan and her husband bought a shredder to be used for their insurance company. The shredder was bought to destroy personal documents, such as mortgages, of their clients. They had especially bought this type because it was able to destroy 20 paper sheets at a time. Susan also mentioned that it was valuable for their clients to ensure that personal documents would not end up in the records of the company, but would be destroyed immediately<sup>7</sup>. In the first five years, the shredder was not used very often. Yet, this changed in 2015, from this point the insurance policies were all received digitally. It made Susan and her husband decide to set up a digital database. Firstly they had to scan all the records of the company to destroy the paper archive with the shredder later. It took four years to shred all the paperwork, as Susan narrates;

*“So I think in 2015 the shredder started to make mileages. [...] We had employees and since it is not that healthy to spend hours sitting next to the shredder we decided to take on turns. Everyday someone had to shred for one hour. Otherwise the shredder would also become too hot and you had to be careful with that. So the last few years, the last four years, it just had destroyed an entire archive”.*

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<sup>7</sup> In the Netherlands, tax authorities oblige companies and citizens to keep their administration for seven years in archives. After these years you are as company or citizen allowed to destroy it.

In 2019, Susan and her husband decided to end their business and retire. Susan explained that they thought of selling the shredder on Marktplaats<sup>8</sup>, because it was still a functional product. Besides, it had cost them quite some money and probably it would sell for a good price while making others happy with it. However before selling the shredder, the shredder gave a red sign while testing. Susan thought the shredder gave a red sign since it had made some overtime as the shredder was heavily used for four years. However, after a few hours of cooling down the sign remained red. Susan refused on giving up and tried to use pieces of cardboard and plasticized business cards to start the system;

*“Again I tried to push it [plasticized business cards] through, like come on push it, but no, it just did not work, it was completely dead. Yes.”*

Yet, Susan refused to dispose the shredder since in her opinion it is a waste to replace a product with a new version while it is unclear what is broken, as she mentioned;

*“I think it a waste to use new raw materials for parts that you can say, well you only need a small piece, a screw, a nut, since in some cases it is unsure what is broken.”*

Furthermore, Susan and her husband are fed up with the ease of people throwing broken products out, as she mentioned during the interview;

*“But to simply say; ‘it does not work anymore, so let’s get away with it’ we are fed up with the fact that everything is just thrown away so easily. We think that is a waste [...]”*

In Susan and her husband’s opinion throwing away broken products is a waste, since some products can be repaired to get a second life, possibly making someone else happy with it. So, Susan and her husband decided to take the broken shredder to their private house to examine it. In the meantime, Susan explained they had moved a lot of paperwork from their company to their private house, since it is obligated by law to keep administration stored for seven years<sup>6</sup>. Furthermore, she mentioned her cousins had passed away and due to their

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<sup>8</sup> A Dutch craigslist.

responsibility of being executors Susan expected a lot of paperwork to come. Because Susan and her husband did not want to shred all those documents by hand in their spare time, they decided to repair the shredder if possible, as she described during the interview;

*“Then it was, yes, what are we going to do? Are we going to use our spare time to shred it all. Well no, we are going to give it [the shredder] a second life if possible.”*

Susan explained she only would want to buy a new shredder if the old one is really broken;

*“[...] I am fine with buying a new one, but only if it is completely broken down. The foundation or gears of the product must be irreparable, to be able to state; ‘well it is no longer possible’.”*

In general, if a product in Susan’s household is broken Susan usually repairs it because she likes to repair. The reason for the enjoyment of working on repairs is because she grew up with repairing, as she narrates;

*“Yes, my mom always told me; ‘Susan you need to be able to do everything by yourself [...]’. So I learned how to wallpaper, how to repair a bicycle puncture, after I got a car she gave me lessons on how to change a tire or a lamp. She said; ‘you have to be able to do all of this at the moment you need it [...]’ [...] So yes I grew up like this.”*

Susan mentioned that it was easier to dismantle and repair products in the past than nowadays. For example, she explained it was fairly easy to repair a broken washing machine in the past;

*“In the past you unscrewed the lid of the washing machine and observed what was wrong with it. [Then it was] ‘oh well, that blade does not turn, oh there it is, it is out of balance’ well then you put some things in place that it was in equilibrium again, you put the lid back on, did a quick check and it worked. It is all about the electronics that you really cannot do anything yourself anymore nowadays.”*

According to Susan, the electronics are complicating the repair of devices present-days. As a result, she thinks it is important to first research the technical advancement a product has reached before purchasing it. Susan rather buys a simple washing machine as a simple washing machine is, according to her, easier to repair compared to an expensive one which is too technically advanced to repair, as she narrates;

*“And uhm, especially if you want to buy something, you check how technical it is, can I repair it by myself, such as a washing machine. I can buy a very expensive washing machine, with all the bells and whistles, but if one part breaks, then I do not know how much time and money it takes before it is actually repaired, the technical elements are too advanced. But if you have a simple washing machine and one part is broken it is easier to repair [...].”*

In general, Susan is the one who usually repairs products within the household also since her husband does not like it. Yet, Susan did not try to repair the shredder by herself, because her husband did not allow Susan to repair it;

*“Well, he does not allow me to repair things [products] that contain electricity, he would tell me professionals should cope with that, these people know what they are doing and you might be electrocuted by it. So I am allowed to repair everything by myself, as long as it does not contain electricity. In this case I had to outsource.”*

Because Susan had to outsource the repair she thought of visiting the Repair Café to repair the shredder. Susan made clear that she had visited the Repair Café before and thought it would be nice to repair the shredder at the Repair Café too. Furthermore, she thought of visiting the Repair Café since she did not want to bother her children. She explained her children like to repair too, but never wants to ask them for repair help since this is below her level of honour. Besides, she wanted to repair the shredder at the Repair Café since she did not want to outsource the repair to a repair shop or sheltered workshop. Susan mentioned she does not enjoy bringing a broken product to a repair shop or sheltered workshop because in that case she will not learn anything from the repair, as she explains;

*“I find it too easy to bring it [a broken product] to a repair shop [or sheltered workshop]. I like to observe [the repair], can it be repaired? How will it be repaired? How do you repair it? Can I eventually repair it by myself? And uhm, yes that is actually the main reason [why Susan prefers to visit the Repair Café if a product is broken and needs to be repaired].”*

At the Repair Café Susan is able to observe the repair technicians working on the repairs. Through observing and learning how to repair Susan gains knowledge on what to do the next time a product needs to be repaired. As an example Susan mentioned that she once repaired a pair of pants at the Repair Café. The seamstress showed Susan how to sew one pantleg and afterwards she allowed Susan to try and sew the other pantleg by herself. Susan mentioned she now knows what to do next time a piece of clothing needs to be sewed. Besides, Susan mentioned she is now capable in helping others due to learning and observing the repairs at the Repair Café. For example, due to learning how to sew Susan can sew a new curtain for a friend of hers who is physically unable to do it.

Another reason why Susan visits the Repair Café is because she enjoys the enthusiasm with which the repair technicians try to repair any product you may bring to repair. Furthermore, she encourages the initiative since it causes a social meeting place;

*“It [the Repair Café] is really a social event. It is in a residential area and a lot of fun because people get to meet each other, drink a cup of tea with each other, chat about anything, for example about their children and in the meantime the repair technicians are trying to do their best while being enthusiastic for their work [...]”*

Susan mentioned since she is retired and has more spare time, she wants to use this time for social talks at the Repair Café as she thinks people who sit alone at the Repair Café are in need for a social talk. According to Susan listening to a story or chatting with others may already be pleasant for people. As an example Susan mentioned the time she met a woman with two daughters the same age as Susan her boys. While talking with each other they found out both their children had attended the same school and are Facebook friends. Afterwards, Susan invited the woman for a cup of coffee at Susan her place.

At the time Susan visited the Repair Café with the broken shredder the repair technician responded very enthusiastic, since the shredder was in such a bad shape. During the repair a lot



of paper came out of the shredder and after an hour the repair technician concluded that the shredder got stuck. He explained Susan in some cases a layer of plastic/glue is attached to the top of a paper sheet and by shredding this kind of paper, often the plastic/glue starts to form a lump inside the shredder. Susan was not aware of this and listened to the advice the repair technician gave to her. The repair technician advised Susan to dry the shredder at home and to visit the Repair Café the next time it is organized. Susan thanked him for his advice and left the Repair Café to dry the shredder with a leaf blower at home.

When the shredder was dry and the next Repair Café meeting was ahead, Susan visited the Repair Café again. The same repair technician examined the shredder and mentioned to her that he was able to repair it. After the repair Susan was very happy the shredder was repaired and left the Repair Café. Susan mentioned that she will come back to visit the Repair Café after the holidays. Susan will then visit the Repair Café to repair their Dolce Gusto and Yura coffee machine. She explained that if the Yura coffee machine can be repaired, she will probably sell it on Marktplaats. This because the Yura coffee machine was from their company and is a professional coffee machine which is too large to use in their kitchen. Besides, she mentioned she already had a coffee machine (the Dolce Gusto) and does not need to have multiple coffee machines. She would be very happy if the Yura coffee machine could be repaired and used again by others.

Lastly, Susan mentioned that if she would move to a smaller house in the future, she will probably give the shredder away for free. However, first she and her husband will use the shredder to shred the paperwork of their company and the paperwork of their cousins.

#### ***5.4.1 Summary***

In short, Susan really likes to repair. She grew up with repairing and still tries to repair anything she can in her household. At the time the shredder broke down, Susan did not want to dispose or replace it but wanted to repair it for several reasons. First of all, she thought it would be a waste of raw materials to replace the broken product for a new product without checking what is broken. Second of all, she is fed up with the ease people have in throwing products out. Third of all, she did not want to shred all the paperwork of their company and cousins by hand. She only wants to buy a new shredder if the shredder is really irreparable.

Susan explained that it is more difficult to repair products nowadays compared to the past. In her opinion this is due to the increasing load of electronics. Besides, Susan rather purchases a simple device, which is according to her easier to repair than purchasing a device

which is more technically advanced. According to Susan, it cost more time and money to repair, for example, an expensive technically advanced washing machine compared to a simple one.

Susan explained she visits the Repair Café if an electrical device is broken, as was the case with the shredder. In addition, she visits it if she and her husband cannot repair a broken product solely. Also, she explained that she does not want to ask her children to repair a broken product since it is below her level of honour. Besides, she visits the Repair Café since Susan does not enjoy bringing a broken product to a repair shop or sheltered workshop because in that case she will not learn anything from the repair.

Susan explained that she enjoys visiting the Repair Café because you may watch the technicians working on the repair: by observing Susan learns how to repair a product and through this might be able to help others. In addition, she enjoys visiting the Repair Café since she thinks it is a very good initiative: she finds it a very social and pleasant place to go to if a product needs to be repaired. Pleasant because the repair technicians are very enthusiastic and are always willing to repair your broken product. Social because she thinks it is a nice meeting place within a residential area. According to Susan, people drink a cup of tea or coffee with each other and start a conversation.

Susan explained since she is retired and wants to use her spare time for social talks at the Repair Café. She thinks people who sit alone at the Repair Café are in need for a social talk. By chatting with them and listening to the story Susan thinks this may be pleasant for them.

## **5.5 Built-in oven**



*Figure 7 Example of the oven Kate wanted to repair (Ikea, 2019).*

Two years ago Kate bought a second hand built-in oven at Marktplaats. Kate bought this oven because it is an oven with simple instructions and containing only one button. According to her, a simple oven is more convenient since it does not break down easily, as Kate described during the interview;

*“[...] it is a very simple oven with only one button and that is also the reason why I bought it. Because I thought no trouble, for parts that can break down easily [...].”*

In general, Kate never buys new products because she thinks it is considerate to reuse products, as she explains;

*“[...] I am very fond of thrift stores and Marktplaats, I actually do not buy anything new. No. For the reason I think it is good to reuse in the first place.”*

In addition, she also does not buy new products since it is financially beneficial;

*“In the second place, because it is financially also very nice. Yes. So, uhm, yes I almost never buy anything new. [...] It is in my system to buy and use anything second hand.”*

After two years of having the oven all the oven functions except the grill function stopped working. Kate was disappointed that the functions of the oven stopped working so fast and wanted to examine and repair the oven by herself if possible. She explained she had inherited her the intention to repair broken products from her mom, as she tends to first repair broken products in her household;

*“[...] I think it is worth it to first examine it by myself if I can repair it. [...] And it is also nice if you can do it [repairing a broken product by yourself]. [...] so that is always my first solution right, to see if I can repair it by myself and yeah, if that does not work, I can always ask someone else to have a look at it.”*

Thus, Kate first examined the oven personally. She thought something was wrong with an unconnected wire that regulates the oven temperature since the grill function still worked. She opened the oven to see if she could find an unconnected wire, as she narrates;

*“Uhm, so I first searched for it [an unconnected wire] myself. And that was not the case, it was more difficult than expected, I could not find out what it was, so then I thought, I will go to the Repair Café [...]”*

Kate wanted to examine and repair her oven at Repair Café Wageningen and not at a repairman because she did not think it was worth the money, as she explains;

*“[...] I bought it [the oven] on Marktplaats for fifty euros, so it is already an oven that did not cost me that much. And uhm, then I think it would be a shame to ask a repair technician to come over and spend a lot of money on it.”*

Another financial reason why Kate wanted to repair the oven at the Repair Café is because Kate cannot spend a lot of money on repair, as she described during the interview;

*“[...] It is also good to mention, I am a single mom with three [young] children, I work of course as much as I can but not fulltime because that is impossible with a family. The children spend all their time with me as they do not go to their dad. So uhm, yes that is uhm financially, that is also the situation of course in which I cannot spend that much.”*

Kate explained she is not financially able to pay for a repairman, call-out charges, an investigation and/or parts that must be replaced if a product in her household breaks. Besides, she is not financially able to replace a broken product for a new one. Therefore she also always buys products second hand.

Aside from visiting the Repair Café for financial reasons, Kate also thinks it is good to visit the Repair Café since they reuse products. Kate explained before she was aware of the Repair Café she always replaced broken products for second hand ones if she could not repair it by herself. However when Kate's mom told her about Repair Café Wageningen, Kate started to visit it quite often and began to reuse her repaired products. For example, Kate had visited the Repair Café once to ask advice on repair for a broken espresso machine.

According to Kate different types of people visit the Repair Café for several reasons. She likes this diversity as at first she thought only people with a low income visit the Repair Café. In addition, Kate explained she enjoys visiting the Repair Café since she likes the concept

of the ability to create volunteer work for people with repair knowledge and people who are in need for repairs;

*“[...] I also think it [the Repair Café] is a very nice concept. I have been there before and then I saw uhm, I see that those people [the Repair Café volunteers] themselves also flourish very much or yes, feel very good about it and feel very uh, yes, yes, I might fill it in, but they feel very important because of it [...].”*

Lastly, Kate enjoys visiting the Repair Café because the meetings are arranged in community centre ‘Ons Huis’. She is familiar with the community centre due to her disabled sister having her day care at this location and her daughter used to have dance lessons there. Furthermore, she explained ‘Ons Huis’ also organizes lots of activities for the neighbourhood. According to Kate, the community centre is valuable for a lot of people and for this reason she thinks ‘Ons Huis’ is a good, fun and convenient place to organize a Repair Café.

Kate wanted to visit the Repair Café with her oven, yet it took a while before she actually visited it. She had used the oven solely with the grill function for baking at first. Nevertheless, at some point in time she was done with all her baking failures and was keen on repairing it. Still she did not immediately visit the Repair Café, as she explains;

*“[...] the Repair Café is once every two weeks right? But you just need to be available then, uhm, if I do not have to work, or if I do not have other appointments, uhm yes, so if you forget it once then you have to wait for two weeks. Thus it took a while [...].”*

Two points in time caused Kate to decide to bring the oven finally to the Repair Café: Kate was done with eating one pot meals and her son’s birthday was coming up for which she wanted to bake a cake. Kate explained she is renovating her kitchen and at this moment solely uses a single burner;

*“So I am cooking now on a silly single burner and with that, I needed the oven a lot to keep things warm and to prepare dishes. So I really used it a lot, at the time the kitchen hob was not installed. So when it [the oven] also stopped working, cooking was very difficult with a single burner.”*

Furthermore Kate's son's birthday was coming up and for this event she wanted to bake birthday cakes;

*“Uhm, a birthday was coming up for which I had to bake birthday cakes. So then I thought, yes now I really have to go [to the Repair Café]. So that was the moment, you cannot bake cakes on maximum heat capacity, no, it has to bake on 180 degrees and not higher. Yes, so that was the point that made me think: ‘yes now I really have to get it repaired.’.”*

Thus Kate visited the Repair Café with her oven on a Friday afternoon. She arrived twenty minutes before the Repair Café meeting actually started as the Repair Café volunteers had mentioned beforehand to come in early to prevent standing in long lines;

*“ [...] so I came there ten past one and luckily I was the first one in line. However, there is always a chance of course that you sit there for hours waiting to be helped. So that is something you have to find worth waiting for, yes.”*

At the time the Repair Café officially opened Alex, one of the Repair Café technicians, examined Kate's oven. Kate watched his examination and after a while Alex concluded a failure on the heating element. He advised her to buy a new heating element which would cost Kate fifty euros. Kate did not see this coming since at first she thought there was a problem with a loose wire. Kate asked Alex whether it would be possible to order a second hand heating element since in her opinion fifty euros is quite some money. So Alex advised Kate;

*“[...] but then he told me, Alex, who has of course a lot of experience with these kind of things he mentioned fifteen years [of experience] [...], it is better to buy such an [heating] element new since there is a chance you can experience the same problem with a second hand one, or even sooner since you do not know how old it [a second hand heating element] is.”*

Kate agreed with Alex. She thought of buying a new heating element, as Kate narrates;

*“And uhm, this is a very simple oven with only one button, that is also the reason why I bought it. Because I wanted to spare myself with trouble, for example parts that can break down easily, so yes, well, I thought it is worth it to replace the element, since there is not much else that can break down.”*

In addition, she thinks replacing the heating element is cheaper on the long run. So Kate agreed with Alex ordering a new heating element. Kate left the Repair Café as Alex had explained to her that he would visit Kate after receiving the heating element. The following week on Tuesday Alex visited Kate to insert the new heating element. He enjoyed installing the element and afterwards the oven worked again. Kate was very happy with it and enjoyed the fact that Alex was so enthusiastic about his repair. Because Alex was still at Kate’s house, Kate furthermore asked him to examine her broken espresso machine. Since the espresso machine was broken for months. Alex was fine with it, as Kate explained;

*“And he also observed my espresso machine. I have been there [at the Repair Café] once before and at that time Alex gave me a tip to descale it. In doing this it stopped working due to a short circuit.”*

Alex examined the espresso machine and was able to repair it immediately. In the meantime, Kate also asked him to look at her washing machine and Alex gave her some tips. Kate was really appreciative with all Alex had done. She thanked him a lot and Alex left her house.

Looking back on the repair Kate explained in her opinion it is a pity the heating element was so expensive even though it was, according to her, the cheapest way to repair it. She explained if the element would have cost her more money, she probably would have brought the oven to a thrift store nearby and would have replaced it for a second hand one. Furthermore, she mentioned if the oven could not be repaired she would have taken it to the recycling centre and would have bought a second hand one to replace the broken oven. Yet, since the oven is repaired by Alex she does not have to replace it and therefore she is thankful for the Repair Café.

### ***5.5.1 Summary***

If a product breaks in Kate's household she always tries to repair it by herself first since she enjoys repairing. Kate wanted to repair the oven by herself for two reasons. First of all, she thinks it is worth it to first examine it by herself before replacing it for a second hand one. Second of all, she does not think it is worth the money to spend on a repairman since she had bought the oven second hand for only fifty euros.

Kate visits the Repair Café if she cannot find out what is broken or wrong with a product, which was the case with the oven. Furthermore, she visits it when she cannot repair a product by herself. Also she visits the Repair Café for a financial nature. She cannot spend that much on repairs since she is a single mom with three young children and raises them by herself. Therefore she is not financially able to pay for a repairman and his call out charges, the investigation and/or parts that have to be replaced if a product in her household breaks. Besides, she is not financially able to pay for a new oven. For these reasons, Kate thinks it is worth it to repair the oven at the Repair Café in her spare time.

Kate likes to visit the Repair Café since she enjoys the concept of the ability to create volunteer work for people with repair knowledge and people who are in need for repairs. Kate thinks it is very nice the Repair Café reuses products. Back in the days, if Kate could not repair a product by herself she replaced a broken product for another second hand product. Yet, ever since her mom told her about the Repair Café, Kate first visits the Repair Cafe to see if a broken product can be repaired and reused.

In addition, Kate likes to visit the Repair Café since she sees the Repair Café volunteers flourishing over the years. Furthermore, Kate enjoys visiting the Repair Café because the meetings are arranged in community centre 'Ons Huis'. According to her the community centre means a lot to other people and that is also why she thinks 'Ons Huis' is a perfect place to organize a Repair Café meeting. Lastly, she enjoys the diverse group of people visiting the Repair Café.



## 5.6 Vacuum cleaner



Figure 8 Joanna's vacuum cleaner (own photo).

Note: in the following sections the informants visited the Repair Café for the first time. Therefore, the narratives can be different compared to previous narratives.

In 2010, Joanna bought her very first vacuum cleaner. She just moved from a co-living complex where a vacuum cleaner was shared, to a private apartment where she could have a vacuum cleaner for herself. During the relocation, Joanna wanted to buy a vacuum cleaner, as she described in the interview;

*“I was moving and I was in need of having a vacuum cleaner, as soon as possible, it had to be for sale in Wageningen and I had to buy it directly. It was dirty in my new house, so I had to clean it.”*

Joanna searched for a red coloured vacuum cleaner that was not too expensive, in a good state and could be bought in a store in Wageningen directly. Eventually, she bought a red coloured Siemens vacuum cleaner at Blokker<sup>9</sup>;

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<sup>9</sup> A household store in the Netherlands.

*"[...] a Siemens, so uh, probably a good brand, lets buy it since it has a nice red colour. That is why I chose to buy it. I wanted to have a red one, yes."*

For more than nine years Joanna used the vacuum cleaner to clean her apartment and to vacuum her cat's hair. Besides, she vacuumed if friends or family would come over to visit her. Since Joanna thinks it is important to have a clean house with no cat's hair when people visit. However, just before Joanna left for holidays the vacuum cleaner stopped working while vacuuming. She was very surprised since she did not do anything crazy. To know what is wrong with the vacuum cleaner Joanna removed the vacuum cleaner-bag, as she narrates;

*"Yes, I removed the vacuum dust bag to check if I could see anything, but no steam was coming out of it, or a burning smell nothing it just stopped and then I thought yes, I did not do anything crazy, so, 'no idea', nothing that I could discover directly."*

Because Joanna thought it is very important to have a clean apartment before a friend of hers would come over to take care of her cat, Joanna asked her neighbour if she could borrow his vacuum cleaner and vacuumed her apartment before she left on holidays.

After the holidays Joanna wanted to repair her vacuum cleaner. She mentioned she always tries to repair broken products and it annoys her if a product is broken and needs to be thrown out. Besides, she thinks it is fun to repair products by herself and feels happy if a product can be repaired. As an example, Joanna mentioned she darns her socks and repairs her clothes.

*"I think you should always try to repair. And if I am able to, I will repair it. [...] Yes, I darn socks three times and then [after having darned / repaired a sock three times] I will throw it out. And well, yes, clothing you just repair it and then you can wear it again. Yes, that is something I like and like to do."*

Joanna thinks her childhood has played a major role in why she enjoys repairing so much and why, in her opinion, is important to do so. Namely, she grew up with repairing and learned a lot from her dad, as she narrates;

*“But I always watched my father repairing. Yes, I learned a lot [for example] how to repair a bike. Most of the time he did [repaired] it, but I always had to watch and help him.”*

Furthermore, she learned one does not dispose and replace a product when it can still be repaired. She has become attached to this kind of lifestyle. In her opinion if you decide to purchase a product, you will choose the product you like the most and use it as long as it is durable;

*“[...] I will figure it out once, I buy it and then I am happy with it for the rest of my life. That is also why my family kept watching TV in black and white as long as possible, we did not get a new TV as long as the TV was still functioning.”*

Although Joanna thinks it is important to be able to repair broken products yourself, she did not have the materials, equipment, skills and knowledge to repair the vacuum cleaner by herself. Yet, she still wanted to repair the vacuum cleaner if possible. Also since her boyfriend Peter knew a vacuum cleaner is a very simple electronic device, that cannot actually break. As a result, Peter and Joanna thought of repairing the vacuum cleaner. Besides, Peter did not want to dispose it as he thinks we already live in a throw-away society;

*“And we really live in a throw-away society where people think: ‘well the device does not function anymore I will bring it to the recycling centre and I will buy a new one’.”*

Thus, at the time the vacuum cleaner did not function anymore Peter pondered on what might have been broken in the device. He mentioned he did not think the electric motor of the vacuum cleaner was broken since he thought electric motors of vacuum cleaners hardly wear out. Therefore he thought something else was broken in the vacuum cleaner, as he explains;

*“[...] when it was broken I immediately thought it must be something else, it could be a broken power cord since this is often the case with electrical equipment [...].”*

While Peter thought that there was something wrong with the power cord of the vacuum cleaner, he and Joanna did not own the equipment to measure and know whether the power

cord was really broken. Peter then thought of bringing the vacuum cleaner to his dad's house. He mentioned his dad has the equipment to measure the power of the vacuum cleaner and is besides also very handy. When Joanna and Peter arrived with the vacuum cleaner at Peter's fathers house, the vacuum cleaner got cleaned and examined by Peter's father. After the observation Peter's father explained that the cord of the vacuum cleaner was not broken. Yet, he concluded that there was something wrong with the printed circuit board (PCB) of the vacuum cleaner, as Peter narrates;

*"[...] he measured whether power came into the PCB, which was the case, so then my dad told us; 'it has to be the PCB!'. And yes, that is something beyond our repair capacity."*

Ultimately, when they knew there was something wrong with the PCB of the vacuum cleaner Joanna, Peter nor Peter's father owned the knowledge or skills to repair the vacuum cleaner by themselves. Peter mentioned, repairing electrical devices by yourself is an increasingly difficult task because of today's technical advancement;

*"Well the problem in our society is that in current electronic devices more and more electronical advanced equipment is built in and the more PCBs are built into products, the harder it is to repair them manually."*

Besides, he mentioned it is sometimes no longer possible to repair a product since components/parts of a product can no longer be delivered anymore. According to Peter, manufactures keep spare components of a product in stock for a couple of years, after a few years the components will be replaced by components of newly released products. As a result, Peter mentioned, people sometimes can no longer repair their product since the components of the product can no longer be delivered. In addition, he thinks it is unfortunate manufacturers produce components of newly released products in a slightly different way so that it impossible to put a new component (of a newly released product) into an old product / device. Peter gave an example, as;

*"So if Siemens would release a new vacuum cleaner and it has another electric motor*

*in it, with a slightly different shape that would not fit in ours [the vacuum cleaner of Joanna] then yes. You cannot order all the components and that is bit of a problem in the Netherlands.”*

Another problem Peter mentioned is that it seems like the lifespan of devices is also decreasing over time. He thinks manufacturers produce devices in such a way that the device will not last as long as it could be. As an example, Peter determined there is a difference between the old TV's and the LCD TV's of today;

*“The old TV's from the past, those very large boxes, yeah they just lasted twenty years. While the LCD TV's only last four to five years, but in that case people often also want something new, yes.”*

Peter thinks the old TV's from the past lasts longer since the solder within the PCB's is of a higher quality than the solder within the PCB's of the LCD TV's of today. According to Peter, if manufacturers would use a higher quality of solder within a PCB, a device will last longer, as he narrates;

*“It is just about the quality of the PCB's, in the quality of the solder, when something gets heated it expand and when it cools down it will shrink, I mean if you stick solder very well, it will just last longer.”*

Still, Peter does not think manufacturers will produce products that can last a lifetime. Peter believes manufactures produce products on purpose to last for a precalculated age, as he explains;

*“But manufacturers also like that products do not last a lifetime. They just want to design a product that lasts long enough in order that people will choose to buy a similar product of the same brand again. [For example] if a [Siemens] device breaks after two years and had just past the warranty time, you will no longer want to buy a Siemens [device]. However, if it breaks after nine years, you will say; ‘well, it worked for nine years, so I will buy a Siemens [device] again.’”*

As Peter mentioned earlier, he feels the general trend is that a product is replaced with the newest version, even if a product is still functioning. In Peter's opinion two kinds of products exist: products that do and do not change over time. According to Peter devices like an iron or a vacuum cleaner have not changed in functionality over the last thirty years. As a result people are not keen to replace such a device very often. Yet, he thinks devices like TV's or iPhones have changed over the years. According to Peter, every two-five years new TV screens are being released which are the improved versions of previous ones. As a result Peter thinks people often want to replace such a device with a newest version, even if a product is still functioning. This is the case with iPhones as Peter narrates;

*“If you buy an iPhone seven it has more options compared to the iPhone five, so with these types of products you have different choices. If I chose to repair it, I have the same product, but if I chose to buy a new one, I have a product that can do more.”*

As an example, Joanna explained she had replaced her phone with a smartphone as these have more functionalities;

*“[...] having a smartphone was very revolutionary, I thought yes I must be able to WhatsApp, I was the only one of our group unable to use WhatsApp. Yes, and then you switch to a new one. But I was very happy with the previous phone with which I would only be able to call with.”*

Another reason addressed by Peter why he thinks people do not choose to repair a broken product but choose to replace a product instead is because Peter thinks repairing becomes less cost effective when products become increasingly cheaper. For example, Peter thinks a lot of people do not choose to repair a broken vacuum cleaner since it is, according to him, a relatively cheap product. Therefore repairing it does not pay off. According to Peter, repairing a broken product which is not cost-effective might cause people even to repair products for principle reasons. Peter explained he repairs products for principle reasons because he always wants to repair it if possible, as he narrates;

*“But if the repair would cost half [of the purchase price of a product] and the product will last for more than a couple of years, and it is better for the world since no*

*production costs would have to been made then [Peter is fine with repairing a product].”*

Joanna does not agree with Peter to always repair broken products no matter what the repair costs are. For Joanna it depends on the type of product that breaks whether she thinks it is worth it to pay more than fifty percent of the purchase price for a repair, as she explains;

*“Well I maintain limits. [...] in the case I am attached to a product or have an emotional connection with it, for the reason I have received it from someone, or it is something special, in that case I would want to put more effort into preserving the product.”*

Furthermore Joanna explained that at the time she was aware of the repairability of the vacuum cleaner, Joanna wanted to put effort into repairing it. Because Peter’s father could not repair on the level of switching the PCB, Joanna was thinking to ask a good friend of Peter to try and repair the vacuum cleaner. Yet, Peter was not willing to appeal to his friend since it is good to maintain balance in a friendship, as he described during the interview;

*“[...] [he] can repair on PCB level, he is educated in doing this and he is capable in desoldering small electronics, can add chips to things and can absolutely accomplish anything, everything. So uhm, I regularly appeal to him, yet a friendship should be in balance, if I would only call him to ask to repair something, well than uhm, a friendship is out of balance.”*

Thus, Joanna and Peter did not ask Peter’s friend to repair the vacuum cleaner. For a while there was no urgency to repair the vacuum cleaner since Joanna went on holidays for a second time. Besides, after the holidays Joanna and Peter were travelling back and forth with Peter’s vacuum cleaner. However, this appeared to be unfeasible, as Joanna narrates;

*“Yes, we took it [Peter’s vacuum cleaner] back and forth for a while, it has caused a hectic situation like: ‘oh gosh, yes we need to take the vacuum cleaner with us’, ‘oh no we need the vacuum cleaner over here!’. Yes, that just did not work.”*

So, to not having to move the vacuum cleaner around all the time Peter and Joanna started debating on buying a new vacuum cleaner, or repairing the vacuum cleaner. Peter mentioned if Joanna would decide to go for a new vacuum cleaner, he recommended her to buy the same vacuum cleaner he uses. Since his vacuum cleaner performs very well. Peter explained whenever buying a new device passes his thoughts, he always checks the consumentenbond<sup>10</sup> to see which product is rated the best. Besides, he explained that he always checks the products warranty.

Eventually, Joanna and Peter did not decide to buy a new vacuum cleaner since they think it is important to maintain a product if it can be repaired. According to Peter, they would easily be able to pay for a new vacuum cleaner. However, the importance of maintaining a product exceeds the concept of buying a new one. Also, Peter did not want to buy a new vacuum cleaner since it would be a waste to throw the old vacuum cleaner out, as Peter explains;

*“We first investigated what a new one would cost. [...] The vacuum cleaner I have performs well, so I searched what a new one would cost and the price was around eighty euros. And then uhm, yes, then this one will be thrown out and then you have a new vacuum cleaner, we thought that would be a waste.”*

In addition, Joanna did not prefer to buy a new vacuum cleaner since it would be unnecessary (if the vacuum cleaner can be repaired) since Joanna and Peter are building a house to live in together and Joanna does not want to have multiple vacuum cleaners in their house, as she narrates;

*“ [...] if we are going to live together, we just need one. You would have a superfluous one which must go to the thrift store. So yes, that is also a possibility, and of course we would not throw it out but donate it to the thrift store. That is good for the principle of circularity.”*

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<sup>10</sup> A Dutch non-profit organization which promotes consumer protection and conducts research on for example consumer devices.



Furthermore, Joanna thinks it is easier to repair the vacuum cleaner compared to searching for a new vacuum cleaner. She knows Peter enjoys this, but she does not. However, Joanna explained if she is in need of buying a new vacuum cleaner she knows where to find it;

*“But then I think uh, I want to buy an environmentally friendly one, or something without vacuum bags. Yes, at that time [Joanna had bought the vacuum cleaner] I had just moved and I just did not have the budget to buy a luxurious vacuum cleaner.”*

When Peter’s dad asked Joanna at what moment she would come over to pick up the broken vacuum cleaner, Joanna and Peter finally decided to repair it. Joanna would want to repair the vacuum cleaner at the Repair Café since she did not know any other place where she could have it repaired. She explained repair stores do not exist in Wageningen. Besides, the Blokker, the store at which she had bought the vacuum cleaner, does not have a repair service. Joanna explained that she was acquainted with the Repair Café before, but had never visited it;

*“I knew about it before, but I never had the idea as; ‘oh here is something that is broken which I can bring to the Repair Café’. A broken electrical toothbrush is something that I just dispose. Yes, it is impossible to open them. It is all melted and glued.”*

Eventually, on a Friday afternoon Joanna and Peter went to Repair Café Wageningen with their vacuum cleaner. Joanna and Peter were amazed by the fact how well the Repair Café meeting was arranged. At arrival a Repair Café volunteer wrote down a form the product Joanna and Peter brought to repair and also explained how the Repair Café works. Every repair technician had their own desk and were specialized in a specific repair type. Since there was no repair going on at the ‘electronical device repair desk’ Peter and Joanna could be helped immediately, as Joanna narrates;

*“Well we had not even filled in the form and the [repair] man already said; ‘Yes come with the vacuum cleaner! I will start with the repair immediately!’.”*

Joanna and Peter handed the vacuum cleaner over to the Repair Café technician. They explained to him their thoughts that there was something wrong with the PCB board of the vacuum cleaner. In addition, Joanna and Peter explained that they thought of circumventing the

PCB, yet that they could not do this by themselves. The repair technician responded and told them the components that can break within a vacuum cleaner is the power cord or the PCB. Those are, according to the repair technician, the lo-tech components within a vacuum cleaner which can only break. By explain this to Peter, Peters thoughts (as he thinks a vacuum cleaner is a simple device which cannot actually break) were confirmed and Peters was happy to hear this from an expert. When the repair technician started with the repair of the vacuum cleaner Joanna and Peter were amazed how fast and professional the repair progressed, as Joanna explains;

*“The repair technician was really handy! It was awesome! But, yes it also has to do with the equipment used to measure a PCB, something I do not own. [...] [and] he had everything at hand, he could measure it through and now [the vacuum cleaner] it works safely again.”*

Joanna expressed she was very happy the vacuum cleaner could be repaired;

*“It is working and that is the most important thing. I do not have to throw it out immediately. [...] Besides, I am happy that I do not have to buy a new one, which saves me the hassle of figuring out [which vacuum cleaner to buy].”*

Joanna enjoyed observing the repair and thinks repairing a product at the Repair Café is more educational than bringing a broken product to a repair shop, as she described during the interview;

*“[...] but you must observe and I think yes, if I can learn something when I observe and if I can repair it myself the next time then I really like that yes! So that is something I also really enjoyed at the Repair Café. Because if I outsource it to a repairman, I do not learn anything for me personally.”*

Furthermore, Joanna and Peter thought the Repair Café is very customer friendly. Coffee, tea and even cookies were up for grabs. According to them this makes the Repair Café fun and attractive, even if the waiting times can be long. Besides, they enjoyed the ambiance and location in which the Repair Café meeting was organized.

While Joanna and Peter wanted to leave the Repair Café a Repair Café volunteer wrote down the details of the successful repair of the vacuum cleaner on a form. Joanna enjoyed seeing everything was handled with care at the Repair Café, as she narrates;

*“Well, it went very, very yes very precisely, they had arranged it perfectly, like this is the appointment and it had to be signed afterwards. [...] I think it is very valuable that they write down and track the products that have been repaired.”*

Joanna thinks it is valuable to keep track of the number of visitors and repaired products, since the Repair Café is, according to her, an incredibly beautiful concept and must continue to exist. They think it would be a shame if the Repair Café would disappear. Also for the reason of it being a nice meeting place for a lot of people;

*“[...] people get to meet each other, it [the Repair Café] is a meeting place. Yes, I think these kind of initiatives should exist for people to meet each other, even if it is just for a repair.” - Joanna*

Peter and Joana mentioned they will definitely tell others about the Repair Café and would love to come back whenever the situation occurs that a broken product cannot be repaired by themselves.

### **5.6.1 Summary**

Joanna grew up with repairing and thinks it is fun and important to repair products on your own. It does not matter which products break in the lives of Joanna and Peter, they always would want to repair it by themselves if possible. At the time the vacuum cleaner broke Joanna and Peter mentioned multiple reasons why they wanted to repair the vacuum cleaner. Firstly, Peter knew the device was repairable. Secondly, Peter and Joanna think it is important to maintain a product if it can be repaired. Moreover, they did not want to dispose and replace the vacuum cleaner since they think it is a waste to throw out a device and buy a new one, while it still can be repaired. Besides, they did not want to dispose it and replace it for a new one since we live, according to them, already in throwaway society. Furthermore, Joanna thought it would be unnecessary to have two new vacuum cleaners while they are almost moving in together.

Additionally, Joanna prefers to repair instead of replacing the vacuum cleaner since it saves her the hassle to figure out which vacuum cleaner to buy next.

While talking about the repair possibilities of products, Peter explained it is sometimes no longer possible to repair a product by yourself since products become more and more technically advanced. Besides, he mentioned in some cases he is unable to repair a device, since important components are only available in stock for a few years. Yet, Peter also mentioned people themselves often choose to replace (instead of repair) their product for a newer version. Also he thinks repairing becomes less cost effective when products become increasingly cheaper. According to Peter this might cause people to repair their products for principle reasons.

Joanna and Peter decided to visit Repair Café Wageningen since they did not own materials, skills or knowledge to repair the vacuum cleaner by themselves. Besides, they did not know any other place to have the vacuum cleaner repaired.

Their visit to the Repair Café appeared to be enjoyable, as Joanna and Peter experienced a well-arranged Repair Café meeting. The reception was very precise and the repair technicians were very professional and fast in repairing products in Joanna's and Peter's experience. The technicians also seemed to own the right materials and equipment to repair a broken product. Furthermore, Joanna and Peter enjoyed their visit since they could observe and learn from the repair of the vacuum cleaner. Joanna thinks repairing a product at the Repair Café is more educational compared to taking a broken product to a repair shop. Also, they enjoyed the customer-friendliness of the Repair Café. As for example, coffee, tea, and cookies were available for visitors. Furthermore, they think the Repair Café is a nice meeting place for a lot of people. Besides, they liked the ambiance and location in which the Repair Café meeting was organized. For all these reasons, Joanna and Peter think the Repair Café is an incredibly beautiful concept that must continue to exist.

## 5.7 Floor uplight / reading lamp & Kärcher window vac

Because Elizabeth visited the Repair Café to repair two products both product stories have been narrated by Elizabeth during the interview. At first, the story of Elizabeth's floor uplight / reading lamp will be analysed (5.7.1), followed by the story of Elizabeth's Kärcher window vac (5.7.2).

### 5.7.1 Floor uplight / reading lamp



Figure 9 Elizabeth's floor uplight / reading lamp (own photo).

Multiple years ago, Elizabeth and her husband bought a lamp for the living room to be placed next to their couch. The lamp has a dual function, as a reading lamp and as a dimmable uplight lamp to illuminate the room. Both lamps can be adjusted separately and according to Elizabeth the lamp provides very nice lighting. Besides, she thinks the lamp is very convenient in its use as it can be switched off by foot. For years, the lamp stood next to their couch. However, at some point, Elizabeth wanted to have two lamps in the living room, as she narrates;

*"[...] but at some point in time I felt like having two lamps. Yes and in that case it is not possible to choose the same lamp and I like to be, well as you can see by yourself, I like to be organized. So when I saw this [floor uplight / reading led] lamp I thought of buying two of them immediately. The other one I put upstairs."*

Thus, Elizabeth purchased two floor uplight / reading led lamps to use in the living room and put the other lamp upstairs in her bedroom next to her bed. At some point this year Elizabeth tried to turn on the lights in her bedroom. Yet, it did not work, as she explains;

*“[...] so then it did not work anymore. I thought well this is very unfortunate, since it is a lamp of very good quality. It is quite a heavy lamp, with a heavy foot and the lights are really beautiful [...].”*

Elizabeth made clear she did not want to discard the lamp since she thinks it is important to not throw away a good quality product (when broken). Besides, she had the feeling that the lamp could be repaired. So, Elizabeth thought of repairing the lamp.

Elizabeth explained she had thrown out her fourteen year old vacuum cleaner once. At the time, the vacuum cleaner did not work as well and her son-in-law had told her she had to dispose it due to its age. Elizabeth took his advice and bought a new one of the same brand. Yet, after a while she notices the new vacuum cleaner did not vacuum as well as she expected. Therefore Elizabeth regretted she had disposed her old vacuum cleaner so easy. So now she thinks twice about disposing broken products.

Another reason why Elizabeth did not want to discard the lamp is since she cherishes nice memories of it. For example, she mentioned that she had bought the lamp with her husband, who passed away five years ago. Therefore Elizabeth did not want to discard the lamp, as she described during the interview;

*“[...] because I used the lamp a lot, it stood downstairs for a while. Yes, I still have memories of it, that we bought it together, together with my husband and yes, I got used to the lamp, I could not discard it.”*

As mentioned, Elizabeth also could not discard the lamp because she is very attached to it and used it a lot. Multiple years the lamp had been standing in the living room and was used frequently. For example, Elizabeth explained she started to use the reading lamp more often around her age of forty-five, at the time her eyesight worsened.

Also, because Elizabeth thought the lamp could probably be repaired, she wanted to have the lamp checked. She thought something was wrong with the footswitch or with the lights, as she explains;

*“No, I directly knew the problem was the footswitch, I thought it is broken. And uhm, that is probably it, or one of the lights, but then the question arises whether you can ever buy those lights again.”*

Elizabeth mentioned if something is wrong with the lights of the lamp, she would not know if and where she could buy these. No specialized lighting stores are left in the neighbourhood. In addition, Elizabeth mentioned she could not repair the lamp by herself since she is lacking technical knowledge.

Given the fact that Elizabeth is living on her own she mentioned she often has to ask family members or friends to repair or install a product if she cannot or does not dare doing it by herself. As an example, she explained her brother had installed her rain barrel and friends had come over to replace a lightbulb in the kitchen. However, she mentioned she does not ask them too often because of her stubbornness.

Because Elizabeth could not repair the lamp by herself she thought of repairing the lamp at the Repair Café. Elizabeth explained she got acquainted with the Repair Café in her former job as parenting specialist, as she narrates;

*“Actually [I knew about the Repair Café] due to my work. With the house counselling I recommended clients to visit the Repair Café. Yes, at the time I had such a social map and knew exactly where to refer clients to. Or I learned them to go somewhere, to take the first step and guide them to it.”*

Elizabeth referred clients to visit the Repair Café since she thought the Repair Café is very pleasant and approachable for people. Approachable because one can easily walk in, people do not have to make a lot of effort and do not have to fill in a lot of forms to get a product repaired as she explained. Besides, she thought the Repair Café is approachable since the costs for a repair are not high.

*“Also in costs, for a lot of people it is often, the costs are often very high to be able to repair something. Then of course, it is important not to have high costs. [...] And also if you see that a lot of social contacts are being made at the Repair Café. Everyone is chatting, there is coffee and cookies, it is very pleasant and approachable. Very approachable. For this reason it is also nice to visit by yourself.”*

Because Elizabeth already knew through her former job about the Repair Café she thought it would be nice to visit it by herself too. Another reason why Elizabeth thought of visiting and repairing the lamp at the Repair Café is because she does not trust repair shops, as she described during the interview;

*“I think it is uhm a form of trust. Because I think a lot of repair stores, not all of them, but you have to take their word for it, in the case you need a new part or that you have to replace something completely, and in that case I think is that really true?”*

As an example Elizabeth mentioned an experience her daughter had with a repair shop. Her daughter had brought a broken coffee machine to a repair shop, and just the examination of it had costed her eighty euros. Afterwards the repairman concluded he could repair the coffee machine for an extra one hundred and forty euros. Elizabeth did not trust this and did not understand her daughter had to pay eighty euros for a coffee machine which still did not work. This was a reason for Elizabeth to lose trust in repair shops.

One other reason why Elizabeth thought of repairing the lamp at the Repair Café is that she did not have to ask friends or relatives to help. As mentioned, Elizabeth is sometimes too stubborn to ask them and thinks the Repair Café is the perfect solution for her and other people who live on their own, as she narrates;

*“But this is for me the ideal solution, right? To visit the Repair Café and to give a small donation while they also repair it for you. In that case you do not have to rely on family members, even though they would love to repair it. I think this is a benefit for people who live on their own.”*

Since Elizabeth thought it would be nice to repair the lamp and the Kärcher window vac<sup>11</sup> at the Repair Café, she visited the Repair Café on a Friday afternoon. After she arrived, a repair technician examined the lamp. He concluded a new foot switch of twenty euros had to be ordered and that it would arrive before the next Repair Café meeting. Elizabeth agreed on this and before she left the Repair Café she went to a Repair Café seamstress to ask for sewing

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<sup>11</sup> The story of the Kärcher window vac will be explained after the story of the floor uplight / reading lamp.



advice. Elizabeth explained to the seamstress that she had bought a second hand dress and wants to add a border. Yet, since it is a synthetic dress she did not know how. The seamstress gave Elizabeth a tip to use a piece of paper between the foot of the sewing machine. By doing this no synthetic particles will end up in the machine. Elizabeth had never heard of this technique before, appreciated the tip and went home.

Two weeks later Elizabeth visited the Repair Café again. At her turn, the same repair technician and a colleague examined the lamp. The repair technician wanted to connect the foot switch, but his colleague pointed out the new foot switch was unnecessary. He explained he only had to exchange the brown with the blue wire. The repair technician felt really sorry for his mistake and began repairing the lamp.

During the repair, Elizabeth was amused listening to the tips the repair technician gave to Elizabeth. The repair technician gave Elizabeth a tip as whenever she needs a new light for her lamp, she could probably find one at the thrift store. The Repair Café technician volunteers in a thrift store one day a week and mentioned if broken products are brought in which cannot be repaired anymore, these are taken apart and the parts are stored in boxes. In this light, he also had hoped he would find a lamp foot switch, which was not the case, so he had to order a new one.

Besides, Elizabeth really enjoyed the stories the repair technician told during the repair. For example, the story about the Nespresso coffee machines. The repair technician told Elizabeth that the coffee machines quit working after three years. He mentioned that it is impossible to open the coffee machine with a screwdriver to check for failures. Because of this, he thinks people easily throw their Nespresso coffee machine out. However since he had found a specific screwdriver in Germany he can now open the coffee machines and repair them, as Elizabeth explains;

*“Well he found a special screwdriver in Germany. He explained; ‘It is now possible to open them and now I can see that there is a layer of coffee left behind in every device.’ He then cleans it and the machine will be able to work afterwards.”*

Elizabeth thinks it is great the Repair Café technicians keep searching for repair materials and equipment to be able to continue their repairs. Besides, she thinks it is wonderful that repair knowledge of the Repair Café volunteers is still being used at the Repair Café . She thinks this is of great importance, as she narrates;

*“But I must say that I also think the Repair Café is a very nice initiative, since the knowledge of people, existing knowledge is getting used and I think that is very important. [...] and in particular I think it is very important that knowledge is not lost at a certain age, that those people, well let's be honest, have a source of knowledge they can all carry out.”*

When the lamp was repaired the repair technician asked Elizabeth if she was okay with paying five euros, the shipping fee of the foot switch. Elizabeth did not find it a problem as she enjoyed seeing the passion and love (all) the repairer technician(s) showed when repairing products.

Elizabeth thanked the repair technician for his efforts and left the Repair Café. She mentioned she loved to visit the Repair Café and did not find it a problem having to visit the Repair Café twice. Yet, she thinks you need to consider it takes time to visit the Repair Café, as she narrates;

*“But I must say you need to have time. Such as my daughter and her coffee machine, her time is valuable, she works and has children, [she does not have time] to sit at the Repair Café from half past one till four.”*

However, Elizabeth added she did not mind sitting and waiting at the Repair Café because she enjoyed spending her time at the Repair Café.

### **5.7.2 Kärcher window vac**



Figure 10 Elizabeth's kärcher window vac (own photo).

As explained at the beginning, Elizabeth also brought her broken Kärcher window vac to repair at the Repair Café. Below the story of the Kärcher window vac.

About three years ago Elizabeth bought a Kärcher window vac. She bought it since her daughter persuaded her to buy it, as she explains;

*“Well this is a product to clean the windows, and my daughter actually persuaded me to buy it. I did not like it at all but she said: ‘give it a try mom’ [...]”*

Elizabeth tried the Kärcher window vac and discovered it is actually very useful, as she narrates;

*“You do not need a bucket with soapy water anymore, it is much cleaner and faster, and you only have to clean the woodwork and the edges with a normal cloth, that is it. So you are done faster. [...] I mean, you will hate cleaning your windows less, since it is so fast, so easy and so neat.”*

Thus, Elizabeth decided to purchase a Kärcher window vac set. She bought it for about forty-five euros and this included a sponge, a spray can and a Kärcher window vac<sup>12</sup>. After Elizabeth had purchased it she used the complete set every four to five weeks to clean her windows and car windows.

Yet, after three years of working well the window vac stopped working this year. Elizabeth was disappointed and thought of repairing the device, since she thinks it is a waste of all the plastics to throw out a product that fast. As an example, she mentioned that she even reuses the aircraft cutlery because she thinks it is a waste to use it only once.

Furthermore, Elizabeth wanted to repair the device because she did not want to have all the components of the Kärcher window vac set in duplicate. She explained that it is not possible to solely order the window vac and that it can only be bought as a set, which includes the other components too;

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<sup>12</sup> A Kärcher window vac is a rechargeable electric window squeegee.

*“And you can order a new one [a new Kärcher window vac set] but in that case you own stuff in duplicate. Then again you own a sponge and a spray can which you are not going to use.”*

Elizabeth thought there was something wrong with the battery of the window vac since she had fully charged it and it still did not respond while pressing any button. Yet, Elizabeth did not examine the window vac further since she knew she could not repair it by herself, as she explains;

*“I thought something was wrong with the battery, but I found this strange since it still charged. [...] furthermore I did not have a look at it, because no, I do not dare to open something like that and uhm, no I am not that technical.”*

Because Elisabeth had planned to go to the Repair Café anyway (to repair the floor upright / reading lamp), she brought the window vac to the Repair Café too. When Elizabeth arrived at the Repair Café she first tried to repair the lamp. Since the lamp could not be repaired immediately (a new foot switch had to be ordered) Elizabeth explained to the repair technician, who had also examined the lamp, that she brought also another product to repair. However, she told him that she would come back with the product the next Repair Café meeting, this because the Repair Café meeting was almost at its ends. The repair technician then asked her what it was, as Elizabeth narrates;

*“I told him, well this window vac and then he said: ‘I think this is so interesting!’. He said; ‘I want to take it with me to my home and since you will come back in fourteen days [Elizabeth had to wait for the order of the lamp footswitch], I will be able to have a look at it to find out what is wrong.’”*

Elizabeth thought the repair technician responded so excited since he had never seen or repaired a window vac before. Elizabeth felt appreciative and told him she was fine with his proposal.

Ahead of the next Repair Café meeting, the repair technician had called Elizabeth to announce the engine was broken and that it needed to be replaced for a new one. He asked Elizabeth if she was okay with ordering and buying a new engine for ten euros. Elizabeth told

him she did not mind and explained to him that she would be very happy if the window vac could be repaired. This because she then did not have to dispose the device. Besides, she was happy since it would only cost her ten euros instead of buying an entire Kärcher window vac set for forty-five euros.

When Elizabeth visited the Repair Café for the second time, the repair technician told her the window vac was repaired. He explained to her that he had used the window vac secretly too and that it worked perfectly. Elizabeth was glad to hear that the repair technician had used it secretly too and that she knew the window vac worked perfectly. Besides, she was amazed by how neatly the window vac was repaired. Eventually, Elizabeth left the Repair Café with a repaired lamp and Kärcher window vac very satisfied.

Three days after the Repair Café meeting Elizabeth played sports with a friend. Her friend explained to her that he wanted to repair a broken product and Elizabeth told him about her Repair Café visit.

*“[...] and I told him how much I liked it and how cosy it is. I told him well then it [the product you bring to the Repair Café] will be repaired for you or they will tell you it is unrepairable. In that case at least you are notified, since it can either be fixed or not.”*

Elizabeth mentioned that she likes to be notified whether a product can be repaired or not. By knowing a product cannot be repaired anymore, she explained, she would easier dispose a certain product, as she explains;

*“It makes me feel better if I am aware that the product can no longer be repaired, in that case it is easier to throw it out compared to not knowing what is wrong with it? Am I going to regret it? Or, should I make someone else happy with it?”*

In general, Elizabeth cares for her products. She mentioned if she does not use a product anymore, she donates it to a thrift store or sells it on Marktplaats. According to Elizabeth, this makes her feel good since the product is re-used and bought cheap by someone else.

### **5.7.3 Summary**

At the time the floor upright / reading lamp broke Elizabeth did not want to discard it, but repair it. First of all, she wanted to repair it due to the emotional value the lamp has.

Secondly, she is very attached to the lamp. Thirdly, in her opinion it is important to maintain and repair a good quality product, like the lamp if possible. Fourth of all, she was under the assumption it could be repaired.

When the Kärcher window vac broke Elizabeth mentioned that she also wanted to repair it if possible. This since she thinks it is a waste of all the plastics to throw out a product that fast. Furthermore, Elizabeth wanted to repair the device because she could not purchase the window vac solely. Because she did not find it necessary to have all the components of the Kärcher window vac set in duplicate.

So Elizabeth wanted to repair both products. However, she could not repair it by herself since she does not have the technical knowledge to repair the lamp and Kärcher window vac. Besides she mentioned she does not dare to repair devices like these.

Because Elizabeth knew about the Repair Café through her former job she decided to outsource the repairs at Repair Café Wageningen. Moreover, she chose to visit the Repair Café since she did not want to ask friends or family to help due to her stubbornness. Elizabeth mentioned she lives alone and therefore does not always wants to rely on her family, friends and relatives if something needs to be repaired in her household. Furthermore, she decided to visit the Repair Café since she lost trust in repair shops due to a bad experience her daughter once had with a broken coffee machine.

Elizabeth liked her Repair Café visit since she thinks it is very pleasant; one can have coffee, tea and cookies and there are people to have a chat with. Besides she liked to visit the Repair Café since she thinks the Repair Café is very approachable; people can easily walk in, do not have to fill in a lot of forms and the costs to repair a product are relatively low compared to repair a product at a repair shop. In addition, she enjoyed her visit because of the tips and stories the repair technicians told her during repairs. For example, a tip to buy lamp lights at the thrift store and the story of the Nespresso coffee machines. Furthermore, she enjoyed seeing the enthusiasm, passion and love the repair technicians show to repair and help people. Elizabeth thinks the Repair Café is a valuable initiative since the repair knowledge of the Repair Café technicians is still getting used.

## 5.8 DVD player & English table clock

Sophie brought two products to Repair Café Wageningen to repair. First the story of the DVD player will be explained (5.8.1), afterwards the story of the English table clock (5.6.2).

### 5.8.1 DVD player



*Figure 11 Sophie's DVD player (own photo).*

Seven years ago, Sophie and her husband bought a DVD player for themselves and their grandchildren. Regularly, their grandchildren stayed the night and then they watched a movie together. However, at a certain point, this year the input of the DVD player would no longer open. Sophie and her husband did not mind, as Sophie explains;

*“No we just left it there [on the TV stand] because we took a Netflix-account during that time and yes, we can also watch children movies on Netflix. So we did not need it anymore.”*

While they did not regard it problematic initially it became a problem at the time Sophie and her husband wanted to watch one of their thriller DVD's. Sophie mentioned they enjoy watching thrillers together and own multiple thriller DVD's. Besides, they had just received a lot of DVD's, as Sophie narrates;

*“Then we thought well that is a pity, right, we still want to, and we had just received a lot of DVD's from the wife of a deceased friend of ours. So then I thought, well that is a shame to not watch them at all.”*

Thus, Sophie and her husband considered having checked if the DVD player could be repaired. This is a consideration they usually make when products in their household break, as Sophie explained. Besides, she does not prefer to dispose and buy it new since she is fine with maintaining a repaired product, as she described during the interview;

*“[...] I just think you cannot dispose everything, even if you can afford it, to throw it out, because maybe you could still use it if it is repaired or at least make an effort to repair it. [...] I am fine with reusing something. I am also not like, well I want the newest of the newest. No, if it still functioning, well fine, I am happy with that.”*

Sophie also explained that if she purchases a new product, she prefers to buy a reliable product which in theory could be used for a longer period of time. According to Sophie, she has learned this from her parents and has also passed it on to her children;

*“Yes that is something [...] that has to do with my upbringing. And I also recognize this with my own children, they are the same with this, yes, that are things that you pass on, right.”*

When Sophie and her husband decided to have a look at the broken DVD player they heard something switching inside. However, they did not open the DVD player to see what it was since they think they do not have the technical knowledge to know what could possibly be wrong. Sophie then thought of buying a new DVD player at an electronics store. However, a friend referred her to the Repair Café. Sophie thought this was a great idea because she used to cut out the Repair Café advertisements from their local newspaper, as she mentioned during the interview;

*“And I had already cut out an article from Wageningen Stad a few times [...] because I thought to use it whenever the situation is at hand.”*

Sophie explained she could always try to repair the DVD player at the Repair Café. A reason for doing so, as she mentioned, is that the Repair Café technicians can probably check whether a reparation is an option or not, as she explains;



*“I thought, I can always check if someone has the knowledge to repair it. Who looks at it and will say: ‘well it cannot be repaired anymore.’ [...] Well, fine, in that case I know where I stand, yes and then I would bring it to the recycling centre and then. Yes, then I do not know where these things go to next.”*

Besides, Sophie had just read an interview with a Repair Café technician in the local newspaper that week. He mentioned the diversity of products being repaired at the Repair Café. After she had read this, she thought probably some repair technicians may be able to repair the DVD player. Another reason why she considered the Repair Café to have checked if the DVD player can be repaired was that Sophie did not know any other place where these kind of products are repaired. Furthermore, Sophie thinks repair shops hardly repair devices like the DVD player anymore, as she described during the interview;

*“Well, they hardly repair anything anymore. They will say; ‘buy a new one, it is too expensive, you can better buy a new one for the same sum of money then yes, repairing it’. If they even would repair it!”*

So, Sophie decided to not purchase a new DVD player, but to visit the Repair Café to repair the broken DVD player. When Sophie arrived at the Repair Café with the DVD player and English table clock<sup>13</sup>, she got approached by a Repair Café volunteer who explained her how the Repair Café works. The Repair Café volunteer filled in a form which products Sophie wanted to repair and gave Sophie a number to wait for the repair technician. Sophie had to wait for a while until it was her turn, but nonetheless thought the Repair Café meeting was perfectly arranged, as she narrates;

*“But especially, yes how can I say this, the welcome was very, very, very pleasant. A large table, to grab coffee or tea. Yes I had to wait, but everything was perfectly arranged. You received a form, they wrote down what kind of device or whatever you wanted to repair, [they gave you] a number and explained this gentleman repairs this, this gentleman repairs that and this lady repairs that, I found it perfectly arranged. And*

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<sup>13</sup> The story of the English table clock will be explained in the next paragraph.

*after the repair they (the Repair Café) will ask you if you would like to make a donation. I really do not understand how this is all possible.”*

Besides from the pleasant welcome, Sophie also experienced solidarity at the Repair Café. Since the Repair Café visitors were all sitting at the large table drinking a cup of coffee or tea to wait for their repair and Sophie really enjoyed this.

Furthermore, Sophie explained she was surprised by the diversity of people and products that were at the Repair Café meeting. Therefore she was amazed by the amount of repair options at hand, as she explains;

*“I came in and well I saw a table standing there with a big, well what was it? An oven, at least something really big. Uhm, TV screen, there were lawn mowers, well I was truly astonished. Really. Sewing machines, you can bring clothes to repair. And there was a clockmaker and after half past three a knife sharpener came by.”*

It took a while, but at Sophie’s turn a repair technician opened the DVD player to examine it. Sophie enjoyed observing how the repair technician worked. Besides, Sophie enjoyed the conversation the repair technician and Sophie had during the observation of her DVD player. She mentioned they did not only talk about the DVD player, but also about other topics.

After a while the repair technician concluded a rubber ring was worn out. He explained her he had to look for a new rubber ring in his collection of materials, to replace it. However it could become a problem since the rubber ring had a very specific size. The repair technician then started to search in his weck jars to find the right rubber ring, as Sophie narrates;

*“He had big weck jars with different kind of rings in it, all shapes and sizes, well you name it. He first thought he had pulled out the right ring, eventually the third ring was the one. He told me: ‘I found it.’ He did it. He told me: ‘Well I am going to repair it in such a way that it can last for years’.”*

The repair technician replaced the old rubber ring with the new ring and the DVD player was repaired. Sophie was amazed and enjoyed seeing the pleasure the repair technician(s) has while repairing a product. As she also enjoyed seeing the happy faces of people when leaving

the Repair Café with a repaired product. She thanked the repair technician for his effort and was really happy with the repair. Sophie explained she almost felt bad to leave the Repair Café since she enjoyed her visit so much and did not bring anything else (besides the DVD player and English table clock) to repair.

When Sophie arrived at home she was very pleased and told her husband the DVD player was repaired. Immediately, they tested the DVD player whether it worked, as Sophie explains;

*“We tried it and it works! It works like a madman I would say, but uhm, yes it is now standing over there and it is repaired. If we want to watch a DVD it is possible.”*

Sophie thinks the Repair Café is a great initiative. She thinks it is amazing these people (Repair Café technicians) repair your broken products voluntarily, as she explains;

*“And it is not about, I can easily pay for a DVD player. But the fact that someone is sitting there [at the Repair Café] out of love maybe, or because they like to tinker or I do not know, who sits there and is able to repair [your broken product] [...] something I really appreciate [...]”*

Sophie mentioned she will surely tell others about her experience with the Repair Café and will visit it again if a product is in need to be repaired.

### **5.8.2 English table clock**



*Figure 12 Sophie's English table clock (own photo).*

As mentioned at the beginning, Sophie also brought her English table clock to repair at the Repair Café. In this section the story of the English table clock.

Originally, the English table clock was owned by Sophie's old aunts. If Sophie visited her old aunts, she always watched and listened to the sound of the English table clock, as Sophie mentioned during the interview;

*“Yes, the clock was from my old aunts and when we came over the clock was always standing on their mantelpiece [...] I was always looking at it and then it ticked and I thought it is a wonderful sound [...]”*

At the time Sophie's old aunts passed away, Sophie inherited the clock. She set the clock on the secretary desk next to some other accessories Sophie and her husband are attached to. For years, the clock did not work and has been standing on the secretary desk as an ornament. However, at some point this year the fact that the clock did not work started to annoy Sophie;

*“Well the clock had been standing on my secretary desk for more than a few years. [...] the clock is actually standing there as ornament, but that actually annoys me. I think I have a clock standing over there and then it does not tick.”*

Sophie thought it would be wonderful if the clock would run again. She thought the hands of the clock were worn out and needed to be weld. Yet, she could not repair, weld it by herself. Because Sophie had planned to go to the Repair Café anyway to repair the DVD player, she thought she could always try to repair the clock too. Also because she knew the clockmaker would be present at the Repair Café. Sophie had read an interview (with a Repair Café technician in the local newspaper) about a clockmaker and thought maybe the clockmaker can examine her clock and tell her whether it can be repaired or not. She mentioned if the clock could not be repaired, she would not dispose it, but would put it back on the secretary desk since she is very attached to it;

*“[...] the clock does something to me. Not only memories, but also the clock itself, I think it is a very cute little clock [...] so it is a clock that I am very attached to.”*

Thus, Sophie took the DVD player and the clock to the Repair Café. First, the DVD player got examined and repaired. After the DVD player was repaired Sophie moved to the clockmaker of the Repair Café. The clockmaker examined and wound the clock to check whether the timepiece was still working. This was the case. After he had examined it completely, he concluded he could not repair the clock, as Sophie narrates;

*“But unfortunately, the clock, the hand, the minute hand was so worn out, it could no longer be repaired. [...] he said; ‘No a new minute hand needs to be set up, it is too thin to weld, which is hardly possible.’”*

Sophie showed the address of a clockmaker in a village nearby and asked whether they would be able to repair or replace the minute hand. The clockmaker said yes and Sophie was glad to hear the clock could be repaired, however not at the Repair Café.

All in all, Sophie was happy with the positive outcome of her Repair Café visit as now she is aware of the problems she encountered with the clock. Eventually, Sophie gave a donation for the repair (of the DVD player) and examination and left the Repair Café.

After Sophie came home, she put the clock back on the secretary desk. Because the clockmaker had wound the clock, it had run for a few days as Sophie explained during the interview. Sophie was happy with hearing the ticking sound again, as she explains;

*“So the clock is back on the secretary desk. [...] the clockmaker had wound it to check if the timepiece was still running and it did. And uhm, it ticked for a few days, you heard ‘ting, ting, ting’. Yes then I thought; ‘how lovely to hear this sound again, it works and it is still alive!’”*

One day Sophie will bring the clock to the clockmaker as she mentioned during the interview.

### **5.8.3 Summary**

In general, Sophie explained she does not like to dispose and purchase a new product if the old product could have been repaired. Sophie thinks it is fine to maintain a product if it can be repaired. So, when the DVD player broke Sophie wanted to know whether it could be repaired or not. Furthermore, Sophie wanted to repair the English table clock due to the

emotional value the clock has. She mentioned she was annoyed the clock did not run anymore and would love to hear the ticking sound of the clock again.

Because Sophie and her husband could not repair the products by themselves, Sophie first thought of replacing the DVD player for a new one. However, since Sophie got acquainted with the Repair Café through a friend of hers and the local newspaper of Wageningen, Sophie thought of visiting the Repair Café to repair the products. Besides, Sophie visited the Repair Café to see whether the DVD player and clock could be repaired or not. Furthermore, she visited the Repair Café since repair shops hardly exist and repair products anymore.

Sophie explained she enjoyed her visit to the Repair Café a lot. For example, she mentioned the Repair Café was very well arranged: the welcome was very pleasant, just like the presence of coffee, tea, and cookies. Furthermore, she enjoyed the solidarity she felt during her Repair Café visit. Besides, she liked to observe the examinations and to have a small chat with the repair technicians. In addition, she mentioned to see the pleasure the repair technicians had while repairing a product, as she also enjoyed seeing the happy faces of people after leaving the Repair Café with a repaired product. Sophie mentioned she was surprised by the diversity of people and products at the Repair Café. Also, she was amazed by the repair options at the Repair Café; a clockmaker, a knife sharpener, a seamstress among others volunteer to help people with repairs. All in all, Sophie thinks the Repair Café is a great initiative and she would love to come back if a product needs to be repaired in the future.

## 6 Discussion

In this chapter I analyse and interpret the narratives as elaborated in the previous chapter. At first (section 6.1) ANT will be used to explain how all the narratives started with stable networks and how these networks became unstable. In section 6.2 I analyse how the unstable networks become stable networks again. The reasons why the owners wanted to repair their product and why they wanted to visit the Repair Café are also being described in section 6.2. This chapter ends with section 6.3 in which I describe the actants of the Repair Café and analyse how these actants assemble the Repair Café network.

### 6.1 From stable networks to unstable networks

All the narratives started with the story how the products (the sweater, CD & DVD player, pants, shredder, oven, vacuum cleaner, lamp, window vac, DVD player and English table clock) acted as actants in stable networks. Stable networks are networks in which discrete actants form, align, and entangle with each other in harmony, and together stimulate various actions (Booth et al., 2016) In many cases the products, which were brought to the Repair Café, performed like intermediaries in the networks. Since the behaviour of “material objects” is predictable and uncontroversial as they present no surprises for other actants (Vries, 2016, p. 90). This becomes for example clear when looking at the story of Susan. Her shredder clearly acted as an intermediary performing the action it was meant to perform within the network of Susan’s and her husband’s insurance company, namely shredding the personal documents of their clients and eventually their full paper archive. Also, the window vac of Elizabeth clearly acted as an intermediary within the network of Elizabeth’s household since the window vac performed the action it was meant to perform, cleaning Elizabeth’s car and house windows.

According to Law (1992), most of the time actants that perform as intermediaries are viewed as a single working actant rather than a network of electronic components and human interventions. However, breakdowns can change this (Booth et al., 2016; Latour, 2005; Vries, 2016). For example, Luke and his family viewed their CD & DVD as a single working actant as the behaviour of the device was predictable and presented no surprises within the networks the device interacted in. If Luke’s son for example wanted to watch a Barba Papa video, he used the CD & DVD player to put a Barba Papa DVD in and started to watch the video on it. However, at the time the CD & DVD player broke down this year Luke did not consider his CD & DVD player as a single working actant anymore. Rather he began to see the device as an entire network in itself, consisting of several discrete actants such as electronic components.

According to Luke one actant, the input of the CD & DVD player, did not function properly anymore within the network of the CD & DVD player. Also, Luke came to the conclusion that the other actants within the network were still functioning well. This because Luke was still able to listen to the Four seasons of Vivaldi CD which was in the CD & DVD player at the time the CD & DVD input broke. Moreover, Luke could still use the USB input of the CD & DVD player. Thus, at the time the CD & DVD player broke Luke did not consider his CD & DVD player as a single working actant anymore, rather he started to view the actant as a network consisting of several actants.

Eventually, all the networks of the ten products collapsed, became unstable or reformed in different patterns because one or more actants within the networks of the products broke down. For example, the network of Kate's oven became unstable at the time the heating element of the oven broke down. As a result of this only the grill function of the oven could be used. Furthermore, the network of Elizabeth's window vac became unstable at the time the engine of the window vac broke down. From then on Elizabeth was only able to charge her window vac but could not use the device as the engine of the window vac was broken. Additionally, the network of Sophie's DVD player became unstable when a rubber ring of the DVD player was worn out. As a consequence, the DVD input could not be opened anymore and the network of the DVD player became unstable. So because a shifting of alignment between the actants appeared in the networks, the networks of all the products became unstable, collapsed or reformed in different patterns (Booth et al., 2016) .

As a result, the ten products who performed as a silent intermediary within the networks started to perform like a mediator in these networks (Latour, 2005). They started to perform like mediators since they "transformed, translated, distorted and modified the meaning of elements they were supposed to carry" (Latour, 2005, p. 39). As a result, the owners of the products became more aware of the role the products performed within the networks these are being used in, as the breaking of these products destabilised the taken-for-granted actions performed by these products in these networks. For example, when the heating element of Kate's oven broke down, she came to the conclusion she used the oven more often than she realised to keep food warm. The same she mentioned about preparing dishes and baking cakes in the oven. Thus, at the moment the heating element of her oven broke, she was confronted with the mediating role her oven was performing since this disrupted her normal routine of cooking and baking within the network of her household. In addition, Joanna came to the conclusion that she used the vacuum cleaner in her household in order to get her apartment



clean for herself, but also for others. The mediating role the vacuum cleaner played got noticed by Joanna at the time she wanted to clean her apartment and the PCB board of the vacuum cleaner broke during vacuuming.

Because the actants did not perform as a silent intermediary anymore, the networks in which the actants performed became unstable, collapsed or reformed in different patterns (Booth et al., 2016). For example, at the time the PCB board of Joanna's vacuum cleaner broke Joanna tried to reform the network in which her vacuum cleaner was performing by borrowing the vacuum cleaner of her neighbour. She felt the need to reform the network in a different pattern because she wanted to leave behind a clean apartment when her friend would come over to take care of her cat. After Joanna's holidays the networks in which Joanna's vacuum cleaner performed in became unstable since she could not repair the vacuum cleaner by herself and therefore could not vacuum her apartment anymore. Because Joanna still wanted to clean and vacuum her apartment, she started to reform the network by borrowing Peter's vacuum cleaner. For a while Peter and Joanna went back and forth with Peter's vacuum cleaner and so Peter's vacuum cleaner took over the intermediary role of Joanna's vacuum cleaner for a while. Thus, by borrowing Peter's vacuum cleaner the cleaning network got reformed in a different pattern. In a similar vein, when the input of the DVD player of Sophie broke, the network, in the form of watching movies with the grandchildren as a component of family life, collapsed. Sophie and her husband reformed this network by watching children movies on Netflix. Thus, by replacing the DVD player with Netflix, Netflix took over the intermediary role of the DVD player, meanwhile reforming the network in a different pattern since Sophie, her husband and their grandchildren only started to watch movies on Netflix and did not watch DVD movies anymore.

So, due to breakdowns of actants within the network of the products, the ten products were no longer viewed by their owner(s) as a single working actant. Rather, the owners began to see their product embedded in an entire network consisting of several actants for which one or more actants were broken. The networks the products used to act in also became unstable, collapsed or got reformed as the products did not perform as a silent intermediary anymore but started to perform like a mediator within the networks (Latour, 2005). As a result, the owners of the products became more aware of the role the products performed within the networks these are being used in, as the breaking of these products destabilised the taken-for-granted actions performed by these products in these networks.

## 6.2 Back to the 'old' networks

For a while the owners of the broken products did not use their product(s) anymore and reformed the networks in which the product(s) had interacted in, or still tried to use the malfunctioning product, even though the networks became unstable. However, this did not last for long. At a certain point in time all the owners of the faulty products wanted to stabilize the network of the product and the 'old' networks in which the product(s) acted in for different reasons. For example, the moment when Luke wanted to stabilize the 'old' networks was when he was done with listening to the Four seasons of Vivaldi CD and wanted to listen to his newly bought Amy Winehouse CD's. While Kate at a certain point in time was done with all the baking failures since she tried to bake cakes on the grill function. Also, she was done with eating one pot meals since she now only cooked on a single burner and did not use her oven anymore to keep food warm. Besides her son's birthday was coming up and Kate wanted to bake birthday cakes. Furthermore, Sophie and her husband wanted to stabilize the 'old' network the moment they wanted to watch one of their thriller DVD's. Besides, they had received a lot of DVD's from the wife of a deceased friend of theirs and they thought it is a pity to not watch these DVD's. Eventually, all these particular moments in time made the owners of the malfunctioning products think of repairing their product(s).

### *6.2.1 Narrated reasons to repair the actant(s)*

At a given point in time this year all the owners of the products narrated they wanted to repair the network of the actant(s) and restabilise or restore the 'old' networks in which the products interacted in. Some owners wanted to repair their actant because they thought or knew the actant was repairable. For example, Sophie thought the English table clock could be repaired since she believed the hands of the clock were worn out and thought they probably could be weld. In addition, Peter knew the vacuum cleaner was repairable since it was, according to him, a very simple device that cannot actually break. Furthermore, Benjamin knew his pants could be repaired as it only needed to be hemmed.

Whereas other product owners were unsure if their product was repairable but wanted to know this as they do not like to throw out broken products without knowing whether it is repairable. For example, Kate and Sophie did not know whether the oven or the DVD player were repairable. However, Kate and Sophie wanted to know this before they would decide to throw the device out and replace it with a second hand one or new one. Also, Olivia wanted to

know whether the zipper of her daughter's sweater could be repaired because she does not like to throw out a broken product that easily.

In addition to Olivia, more owners wanted to repair their broken product as they are fed up with the ease of throwing out malfunctioning products. For example, Susan and her husband thought it is a waste to throw out broken products as they always consider a broken product can have a second life if repaired. Also, Peter thought it is a waste to dispose the vacuum cleaner as he thinks we already live in a throw-away society. Therefore, Peter thought it is important to repair and maintain a product if it can be repaired. Moreover, Elizabeth thought it is a waste of all the plastics to throw out a broken product like her window vac, three years after purchase. In her opinion throwing out the window vac after three years would be too fast.

Furthermore, owners mentioned they wanted to repair their actant because they think it is a pity to dispose a product and replace it with another one, if only one part within the network of a product is broken. For example, Luke thought it was a pity to dispose his CD & DVD player as only one part, the input of the CD & DVD player, did not function properly anymore and the other parts in the device were still functioning. In addition, Susan refuses to dispose broken products, like her shredder, when it is unclear to her what or which part of a product is broken. According to Susan, sometimes it is only a nut or a screw which has to be replaced to be able to repair a broken product. Besides, she also thinks it is a waste of all the new raw materials to replace a broken product for a new version when it is unclear to her whether a part of a product can be repaired or replaced. Therefore, Susan thinks it is a pity to dispose an entire product and replace it with a new version if only one component within the network of a product needs to be repaired or replaced. Thus, multiple product owners first wanted to be sure whether their product was repairable before they would consider throwing out their broken product and replacing it for a new or second hand one.

Another reason mentioned by the product owners why they wanted to repair the actant is because they thought it is unnecessary to replace their product for a new one. For example, Elizabeth did not want to buy a new window vac since it was not possible to buy the window vac solely. The window vac was only available in a set. Hence, Elizabeth would have components of the set in duplicate and she considered this unnecessary. Moreover, Joanna did not want to buy a new vacuum cleaner since she thought it is unnecessary to buy a new one as she was planning to live together with Peter soon. Therefore, she thought it was nonsense to buy a new vacuum cleaner and to have two of the same vacuum cleaners at the time they live

together. Furthermore, Benjamin did not want to spend money on buying a new pair of pants since his pants would remain suitable for use after it is being hemmed.

Also, other product owners thought it was unnecessary to replace their product for a new one as the product would remain suitable for use after it is being repaired. According to Page (2014) consumers are more likely willing to repair products if the products are pleasurable in use and have a high functionality. For example, Luke narrated he would still use his CD & DVD after being repaired since the CD & DVD player has options like the CD, DVD and USB input which can still be used today. In addition, Sophie thought it would be nice to repair the DVD player as it would remain suitable for use, watching (thriller) DVD's, after being repaired. Therefore, Luke and Sophie thought it was unnecessary to replace their actant for another one because their product would remain suitable after being repaired.

Additionally, some owners wanted to repair their actant since they did not think it was worth spending their time and effort to search for another product. For example, Joanna preferred repairing instead of replacing the vacuum cleaner because it would save her the hassle to figure out which vacuum cleaner to buy. Besides, she really enjoys repairing broken products. Also, Olivia preferred repairing above replacing the sweater because Olivia did not think it was worth spending her time and effort searching for a new sweater. This because Olivia had to take some requirements into account before she was able to buy a new sweater for her daughter.

Another reason why some product owners wanted to repair their actant is because they like to repair since they grew up with it. For example, Olivia narrated she grew up with repairing, recycling and taking care of her belongings as she is a war child. According to Olivia she became attached to this kind of lifestyle and still likes to repair and wants to maintain her belongings as long as possible. In addition, Joanna watched and learned from the repairs her father did when she was younger. According to Joanna her childhood has played a major role in why she thinks it is important to repair broken products and why she likes repairing so much nowadays. Just like Olivia, Joanna became attached to this lifestyle and always repairs broken products by herself if possible.

Furthermore, some owners wanted to repair their product because they are attached to their product. According to Page (2014) products that have sentimental value to their owner are more likely to be repaired by their owners rather than discarded. For example, Sophie wanted to try and repair the English table clock since she is attached to the clock. Sophie narrated she has nice memories of the clock as she always listened to the ticking sound of the clock when she visited her old aunts at the time she was younger. Besides, she is attached to the clock

because she thinks it is a very cute little clock. In addition, Elizabeth wanted to repair her lamp since she became attached to the lamp as she used it frequently over the years. Moreover, she cherishes nice memories of it as she had bought the lamp with her husband, who passed away five years ago.

Thus, all the owners of the products narrated multiple reasons during the interview why they wanted to repair their actant(s). In short, some owners wanted to repair their product because they thought their product was repairable, whereas others were not sure whether their product was repairable but wanted to repair their product because they thought it is a shame to dispose it if they are not sure whether their product is repairable. Furthermore, owners wanted to repair their product because they did not find it necessary to replace their product if their product could be repaired. Besides some owners wanted to repair their product because they had grown up with it and therefore became attached to this kind of lifestyle and enjoy repairing. Additionally, some owners wanted to repair their product because they are attached to their product.

#### ***6.2.2 Narrated reasons to not repair the actant(s) yourself***

Since all the product owners wanted to repair their product, some owners tried to repair the broken product by themselves. As they narrated, they always try to repair broken products by themselves if possible. For example, Kate tried to repair her oven by herself. While Joanna, Peter and Peter's father tried to repair Joanna's vacuum cleaner. Nevertheless, none of the product owner succeeded in their repair. This because they did not have the repair knowledge, skills, materials and/or equipment to repair the broken product by themselves. For example, Luke was not able to repair the input of the CD & DVD player by himself since the repair of the CD & DVD player was too technical advanced for Luke. Besides, Joanna, Peter and Peters father could not repair Joanna's vacuum cleaner since they did not have the materials, equipment nor the technical skills to repair on PCB level. Furthermore, Benjamin could not repair his pants since he did not own a sewing machine and did not had the skills to sew.

Other owners did not try to repair their product by themselves because they did not have faith in their own repair knowledge and skills. For example, Elizabeth did not open the window vac and lamp by herself to examine what is wrong with the products because she did not dare to. Furthermore, Susan's husband did not had faith in Susan to repair the shredder since the shredder is an electrical device. According to Susan's husband professionals should cope with

electrical devices because they know what they are doing, and Susan might not have this knowledge and skills.

Taken together, none of the product owner had repaired his or her broken product by themselves. Some product owners had tried to repair their broken product but lacked repair knowledge, skills, materials and/or equipment to repair the broken product by themselves. While other product owners did not try to repair their product because they did not had faith in their own repair knowledge and skills. Therefore, at a given point in time all the owners thought of outsourcing the repair and narrated that they needed other actants to stabilize the network of their product(s).

### ***6.2.3 Narrated reasons to outsource the repair at the Repair Café compared to family, friends, acquaintances, (repair) stores or sheltered workshop***

Because all the owners wanted to outsource the repair of their product(s), they had to make a decision where and by whom to repair. In the narratives the owners shared their decision-making process and some of them explained that they did not want to ask relatives, friends or acquaintances for the repair of their product because they wanted to be independent in their repair. For example, Elizabeth did not want to ask her friends or family to help due to stubbornness. She explained that even though she lives on her own she does not want to rely on her family members and friends if she needs help. Therefore, she did not ask them to repair her lamp and window vac. Besides, Susan did not want to ask her children for the repair of her shredder because it is below her level of honour to ask her children for help.

Other product owners did not want to outsource the reparation of their product at a (repair) store due to lack of confidence in the repair services of (repair) stores. According to Darby and Karni (1973) repair services are an example of credence goods<sup>14</sup>. Because repair services can be difficult for consumers, who lack repair experience and knowledge, to know whether a repair is done correctly and at a fair price. Darby and Karni (1973) argue that if a dishonest repair technician uses the ignorance of repair experience and knowledge of consumers to exploit the consumers, consumers can lose their confidence in (repair) stores. As a result, consumers can become uncertain in their decision to repair their product at a (repair) store

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<sup>14</sup> A credence good is a product or service that is difficult for the customer to value, even after it has been purchased or consumed (Spacey, 2017). This makes it for a consumer difficult to assess its utility.

(Darby & Karni, 1973), and through this uncertainty consumers can decide to not repair a broken product at a (repair) store. This is for example what happened to Elizabeth. She lost trust in repair shops due to a bad experience her daughter once had with a repair shop; Elizabeth's daughter wanted to repair her coffee machine and after the repairman had examined the device, he asked eighty euros for the examination and he could repair the coffee machine. However to repair the device, Elizabeth's daughter had to pay an extra of one hundred and forty euros. Elizabeth did not trust this and did not understand why her daughter had to pay eighty euros for a coffee machine which still did not work. She felt exploited and this bad experience was for Elizabeth the reason to lose trust in repair shops. Also, other product owners, for example Luke, mentioned bad experiences with (repair)store and lost trust in (repair) stores due to this.

Moreover, some owners did not decide to outsource the repair at a repair shop due to financial reasons. For example, Kate was not financially able to pay for a repairman and its call-out fee, the examination and the possible parts that needs to be replaced to be able to repair her oven. Therefore, Kate did not decide to repair her oven at a repair shop. Whereas others product owners believed their product was not worth the money to get repaired at a repair shop or repairman. For example, Olivia did not want to repair her daughter's sweater at a tailor shop because she thought it is not worth the money to have an six year old sweater repaired at a tailor shop.

Additionally, multiple owners narrated that they wanted to learn from the examination and repair of their product. If the repair of the product is outsourced to a (repair)store or sheltered workshop the owners cannot observe the examination and repair. According to the owners you go home after you have brought your broken product to a (repair) store or sheltered workshop and wait for a call to pick up your repaired product. In this approach it is for the owners not possible to learn how the product functions, how to maintain it and how to repair it. Therefore, multiple product owners did not decide to visit a (repair) store or sheltered workshop to repair their broken product.

In sum, multiple owners narrated various reasons why they did not want to outsource the repair to their family, friends or acquaintances or to a (repair) store or sheltered workshop. A reason why some owners did not want to ask their relatives, friends or acquaintances for help is because they wanted to be independent in their repair. Other reasons why some owners did not want to outsource the repair at a (repair) store or sheltered workshop is due to lack of confidence in the repair services of (repair) stores, financial reasons and because you cannot

observe and learn from the repairs at a (repair) store or sheltered workshop. Yet, all the owners also pointed out that they still wanted to get their broken product repaired.

#### ***6.2.4 How the owners learned about the Repair Café***

As shown in the narratives, three product owners had visited the Repair Café for the first time. The three owners learned about the Repair Café via different routes. For example, Sophie decided to visit the Repair Café after a friend of Sophie referred the Repair Café to her. Also, Sophie had read the Repair Café advertisements and an interview with a Repair Café technician in the local newspaper. While Elizabeth learned about the Repair Café through her former job and thought it would be nice to visit the Repair Café by herself. Moreover, Joanna and Peter did not tell how they learned about the Repair Café but decided to visit Repair Café Wageningen because they did not know any other place, also no repair stores, to repair the vacuum cleaner.

In a similar vein, the five product owners who had been to the Repair Café before to repair a product also narrated that they (the first time they visited Repair Café Wageningen) learned about the Repair Café via different routes. For example, several years ago Luke and his wife decided to visit the Repair Café for the first time after they had received a leaflet from the Repair Café from their sons' primary school. Whereas Benjamin learned about the Repair Café by an acquaintance of him.

Since the five product owners had visited Repair Café Wageningen before and were all satisfied after the first time of repairing a broken product at the Repair Café, they all narrated they nowadays always go to the Repair Café if something is broken and needs to be repaired. Therefore, the decision where to repair their broken product was not difficult for them to make. Finally, all the product owners decided to try and repair their broken product at Repair Café Wageningen on a Friday afternoon.

#### ***6.2.5 Specific narrated reasons to repair the actant(s) at the Repair Café***

Since the product owners had specific reasons to repair their broken product, the reasons why the owners had visited the Repair Café were also mentioned during the interviews. Below the narrated reasons are listed.

A reason for some owners to visit the Repair Café is because they wanted to know and hear from a 'repair expert' whether their product was repairable (before disposing and replacing it) as they did not know this by themselves. Also, with the assumption that one can easily examine at the Repair Café whether a product is repairable. For example, Sophie (but also other



product owners) visited the Repair Café as she was unsure if her DVD player and English table clock were repairable. However, she wanted to know this as she does not like to throw out broken products without knowing whether it is repairable. By examining the products at the Repair Café, Sophie was immediately aware whether her products could be repaired or not. Sophie explained that if the Repair Café technician had told her that the DVD player could not be repaired anymore, she would have been fine with it too and would have then replaced and disposed her DVD player more easily. As according to her, a ‘repair expert’ with repair knowledge and skills had a look at it.

Unlike the owners who did not know whether their product was repairable, there were also product owners who knew their product was repairable but could not find out by themselves what it was what needed to be repaired (or were not able to repair it by themselves). Yet, they wanted to find this out and because they also assumed that one can easily examine at the Repair Café whether a product is repairable, they also visited with their broken product the Repair Café. For example, Luke narrated that he wanted to examine his CD & DVD player at the Repair Café because he wanted to get an ‘objective’ advice whether his CD & DVD player could be repaired. According to Luke you get a more ‘objective’ advice from the Repair Café technicians since they do not have a commercial interest compared to (repair) stores. Moreover, he likes to examine broken products at the Repair Café because he thinks it is convenient and easy within reach. According to Luke he can easily visit the Repair Café on his bike or walk by to get a broken product examined and repaired on the spot.

Furthermore, some product owners examined their product at the Repair Café from a financial point of view, as it is not obligatory to pay for the examination and repair of a product at the Repair Café. Repair Café visitors may decide for themselves whether they want to donate some money or not. Therefore, a visit to the Repair Café does not have to cost as much as an examination and repair of a product at a (repair) store, repairman or social workshop. For example, Kate decided to examine her oven at the Repair Café as she was not financially able to pay for a repairman to get the oven examined and repaired. Also, Benjamin visited the Repair Café for financial reasons as he cannot afford repairing his pants at a tailor shop.

Another reason narrated by several owners why they had visited the Repair Café is due to the presence of repair knowledge, skills, materials and equipment to repair (almost) any product. As mentioned earlier, some product owners had tried to repair their broken product but lacked repair knowledge, skills, materials and/or equipment to repair the broken product by themselves. For example, Luke first tried to repair the CD & DVD player himself. Yet, repairing

the device turned out to be too difficult to repair as a layman. Because Luke had visited the Repair Café before and knew the Repair Café technicians have the knowledge and skills to repair any broken product Luke visited it with his CD & DVD player.

Whereas other product owners did not try to repair their product themselves as they did not had faith in their own repair knowledge and skills. Since they thought the Repair Café has the presence of repair knowledge, skills, materials and equipment to repair (almost) any product) they visited the Repair Café with their broken product. For example, Olivia visited the Repair Café with the sweater to get sewing advice. This because Olivia was unsure about the repair of her daughter's sweater and knew the Repair Café seamstresses do have the repair knowledge, skills and materials. Besides, Olivia narrated that she sometimes visits the Repair Café to donate repair materials like buttons, zippers, needles and fabrics, so the Repair Café technicians can reuse the materials in one of their repairs.

Another reason narrated by the owners why they visited the Repair Café is because of the Repair Café technicians. Every product owner praised the Repair Café technicians as the Repair Café technicians are, according to them, very experienced, incredibly driven, and enthusiastic for all the repairs. Susan for example finds it very pleasant that the Repair Café technicians are such an enthusiastic group of volunteers and are always incredibly driven to help any visitor with their broken product. Besides, she liked the advice the Repair Café technician gave her about her shredder. As she learned from this advice how to take care and repair her product. Also, other owners liked to hear the tips, advice and stories the Repair Café technicians told them during the repair. For example, Elizabeth appreciated to hear from the tip to buy lights at the thrift store. Furthermore, she loved to hear the diverse stories the Repair Café technician told her, for example the story of the Nespresso Coffee machine. Moreover, she found it amazing to see the enthusiasm, passion and love the Repair Café technicians showed when trying to repair the broken products.

Another reason product owners mentioned why they had visited the Repair Café is because they are able to learn how to repair their product themselves. Since, according to them, almost all the Repair Café technicians are willing to pass on their knowledge by teaching the Repair Café visitors how to repair their product. This is for example the main reason for Susan why she visits and repairs products at the Repair Café, as she loves to observe the Repair Café technicians working on the repairs. By observing the repairs Susan learns about the network of the product and how to repair it the next time it breaks and needs to be repaired. Besides, she might be able to help others by observing and learning from the repairs at the Repair Café.

Likewise, Joanna, Peter, Luke, Olivia and Kate narrated that they loved to observe and learn from the repairs the Repair Café technician do.

Also, the opportunity to meet people in a nice and cosy atmosphere was mentioned as a positive aspect of visiting the Repair Café. For example, Susan liked to visit the Repair Café as she thinks it is a very social event. According to her the Repair Café is besides a repair place also a great meeting place within a residential area. Since visitors will drink a cup of tea or coffee and begin a conversation with each other while waiting for their repair. Also, Olivia likes to visit the Repair Café because of the personal ambience. She thinks there is a personal ambience at the Repair Café as the volunteers are reliable. According to Olivia this also creates a personal connection between the volunteers and the visitors, and because she a good bond with Charlotte, a Repair Café seamstress, she sometimes also visits the Repair Café to just have a chat with Charlotte. In addition, Kate enjoys visiting the Repair Café because the meetings are arranged in community centre 'Ons Huis'. According to Kate, the community centre is valuable for a lot of people and for this reason she thinks 'Ons Huis' is a nice, fun and convenient place to organize and visit Repair Café Wageningen.

### **6.3 Repair Café as actor-network**

In this thesis I followed ten broken products and therefore I was able to analyse why the owners wanted to stabilize the networks of their product(s) and the networks their product(s) acted in, before the products broke down. Besides, I was able in this thesis to trace the actor-network of the Repair Café with its human and nonhuman entities, as all the broken products at a certain point enrolled in the Repair Café network. In this section I will take a deeper look at the Repair Café as actor-network and will also discuss the nonhuman and human entities that ensemble the Repair Café network.

At a given point in time all the ten products broke down and enrolled in the Repair Café network as their owners had decided to repair the product at Repair Café Wageningen. The moment the product owners entered the Repair Café, the owners can be described as the first Repair Café entities as they brought their product into the Repair Café network. In the Repair Café network, the owners can be viewed as actants performing the role of intermediaries and/or mediators. An actant that performs like and intermediary, "transports meaning or force without transformation" (Latour, 2005, p. 39). In many cases nonhumans perform as intermediaries because their behaviour is predictable and uncontroversial (Vries, 2016). However, in the Repair Café the owners can also be viewed as intermediaries since from a distance the owners

look like a single actant in the network as the owners continuously listens to what the Repair Café volunteers and technicians have to say and bring their product (for example) from the registration table, to the waiting table to the repair table. Still, when looking closer the owners can also be viewed as mediators in the Repair Café network. For example, if the owners do not agree on waiting for a Repair Café technician to be ready and instead go to the technician immediately the owners perform like mediators since they interrupt the Repair Café network/meeting and “transform, translate, distort and modify the meaning of elements they are supposed to carry” (Latour, 2005, p. 39).

The Repair Café entities the product owners came across when entering the Repair Café was the table at the entrance and the two volunteers who sat at the table. The table functioned as the registration table of the Repair Café since two volunteers were sitting at it welcoming the visitors. The table can be viewed as a nonhuman actant performing an intermediary role as it helped to stabilize social order in the Repair Café network and other actants, like the volunteers, can rely on it (Vries, 2016). Furthermore, the table had as nonhuman actant agency since two human actants (the volunteers) were sitting behind the table and therefore every visitor had to register their broken product at the table before the product was allowed to continue in the Repair Café network. During the registration the two Repair Café volunteers who sat at the table started to perform as mediators as they started to align with the product’s interest (Booth et al., 2016) and began to search for the right Repair Café technician who had, according to them, the knowledge, skills, equipment and materials to repair the product. Additionally, the Repair Café volunteers referred the product and their owner to a Repair Café technician. The volunteers clearly acted as human entities with agency in the Repair Café network because they determined to which Repair Café technician the broken product needed to be referred to. Accordingly, both entities the table as well as the two Repair Café volunteers who sat at the table can be viewed as fairly important entities of the Repair Café network because they help to ensure that Repair Café meetings are well arranged and organized. This helps in maintaining a stable Repair Café network.

If the Repair Café technician (for which the volunteers wanted to refer the product) is not busy with any repairs, the product and its owner can directly go the technician. Yet, if there is a repair going on or a queue for that specific technician, the volunteers start to explain that the owners have to wait and give them a ticket with a number on it and explain them they will get approached by the volunteers whenever that number is next in line. Another Repair Café entity emerges next as the volunteers refer the owners to have a seat and a cup of tea or coffee

at the large table in the middle of the Repair Café. The large table functions as a waiting table where product owners can sit and wait. The large table clearly acts as an intermediary in the Repair Café network as it helps to stabilize social order. Since the behaviour of the table is predictable and uncontroversial and other actants can rely on it (Vries, 2016). Furthermore, owners can grab a cup of coffee and tea, and might start a conversation with each other since they are all in the same situation of waiting for their repair. At the moment those sitting at the table start a conversation with each other the social in the Repair Café network becomes more implicitly assembled. After a conversation, the social was sometimes extended beyond the Repair Café network because owners kept in touch with each other after they made an appointment to meet again. Also, the table plays an important role in the Repair Café network as the table helps in reaching temporary stability because owners cannot directly start with the repairs and therefore the table acts as a medium for people to stay and wait patiently.

Eventually, when the owners get approached and hear their ticket number is next in line the owners take their broken product to the assigned technician. The technician is the next entity of the Repair Café network and directly starts to align with the broken product's interest. At first, the technician starts to observe the broken product and tries to find out, with the repair knowledge he/she has, what the problem exactly is and why the product does not function anymore. Second, the technician tries to repair the product with the equipment and materials he has taken to the Repair Café meeting. During the observation and reparation of the product the social in the Repair Café network becomes more implicitly assembled, because the Repair Café technician asks several questions about the product to the owner. After asking these questions a conversation often starts and tips or advice how to repair or maintain the product were often given to the owners.

Like every other actant irrespective of their position the Repair Café technician is also an actant with agency and autonomy in the Repair Café network (Booth et al., 2016; Doolin & Lowe, 2002). For example, the Repair Café technician has to a certain degree agency as the Repair Café technician can decide by his or herself how they want to repair the broken product. Yet, this agency also has its limits as it is sometimes the case the technician is not able to start the repair due to, for example, lacking the right materials and equipment.

In the Repair Café network, the technicians perform like mediators as their specificity has to be taken into account (Vries, 2016) every time the volunteers (who sit at the registration table) assign a broken product to a technician. The volunteers try to take the specificities (the knowledge and repair skills) of the technicians into account when assigning the broken products

to the technician. Yet, sometimes it could occur that the assigned technician does not have the knowledge or skills to repair a broken product. This shows that defining a mediator's input (the knowledge and skills of a technician) is not (always) a good predictor to define their output (whether the technician is also able to repair the product). As a result, the Repair Café network can become unstable. However, by asking for example another technician for help the network will turn stable again.

Other important Repair Café entities, besides the technicians with their repair knowledge and skills, are the equipment and materials necessary to repair a product. Having the right materials and equipment in the Repair Café network is important for the success rate of the repair of the product and the stability of the Repair Café network. Often, if the right materials and equipment are available the technician can repair the broken product immediately. The materials and equipment are then performing an intermediary role in the Repair Café network, as they “transport meaning or force without transformation” (Latour, 2005, p. 39) and present no surprises when being used. However, if there is for example no zipper to repair a sweater or if there is no suitable screwdriver to open a coffee machine the repair of these products may not continue at all. In this case the actants do not perform like intermediaries anymore but perform like mediators in the Repair Café network. Because any actant within a network, irrespective of its position, can cause a network to become unstable, collapse or reform in different patterns (Booth et al., 2016; Doolin & Lowe, 2002). This was not the case with the repairs of the products in this thesis. Yet, a couple of times a new element needed to be ordered in order to repair a product. As a result, the owners had to leave the Repair Café network, had to wait for the element to arrive and had to come back with the broken product as the element arrived. When the element arrived the technician repaired the product the next Repair Café meeting and the network of the product became stable again. While the owners leave the Repair Café they passed the table at the entrance, gave their ticket back to the two Repair Café volunteers, donated in some cases money and left the Repair Café network.

Eventually, eight out of the ten products got repaired in the Repair Café network. Some owners had to visit the Repair Café network twice with their product as a new element needed to be ordered to repair the product. While others only visited it once because the repair could be done immediately or the Repair Café technician came to their home to repair the product. All the entities in the Repair Café played an important role in the network as they form together the Repair Café network.

After having mapped almost the entire Repair Café network with its entities, it is clear that the gatekeeper of the Repair Café network is the broken product visitors bring. This because the role of the broken products become indispensable in the Repair Café network and modifies almost all the Repair Café entities to align with its interests (Booth et al., 2016). As the two Repair Café volunteers, the Repair Café technicians and their knowledge, skills, materials and equipment all start to align with the broken product entering the Repair Café network.

## 7 Conclusion

In this chapter the main research question of this study, ‘why do people repair their product at the Repair Café?’ is answered.

This study shows that there are often several reasons why people want to repair their product. First of all, some participants knew their product was repairable and therefore wanted to repair their product. While other participants were not sure whether their product was repairable but wanted to know this because they find it a shame to dispose and replace it if one does not know whether their product is repairable. Besides some participants wanted to repair their product because they grew up with repairing and have become attached to this lifestyle and they enjoy repairing. Additionally, a number of participants indicated to want to repair their product due to having sentimental value towards the product.

Because the participants wanted to repair their product, some tried to repair their broken product first by themselves, but lacked repair knowledge, skills, materials and/or equipment to repair the broken product. While other participants did not try to repair their product because they did not have faith in their own repair knowledge and skills. As a result, the participants had to outsource their repair.

Several participants narrated multiple reasons why they did not want to outsource the repair to relatives, friends, acquaintances, (repair) stores or sheltered workshops. Some participants did not want to outsource the repair of their product to relatives, friends or acquaintances because they wanted to be independent in their repair. While other participants did not want to outsource the reparation of their product at a (repair) store due to lack of confidence in the repair services of (repair) stores. Moreover, some participants did not decide to visit a repair store due to financial reasons. Additionally, multiple participants wanted to learn from the examination and repair of their product. In the approach of repairing a product at a repair (store) or sheltered workshop it is not possible to learn how their product functions, how to maintain it and how to repair it. Therefore, multiple participants did not decide to repair their broken product at a (repair) store or sheltered workshop.

Because the participants still wanted to repair their product, the participants decided to repair their product at the Repair Café. Some participants of this study had visited the Repair Café for the first time and had visited it because they did not know any other place in Wageningen, also no repair stores, to repair their product. While others decided to visit the



Repair Café for the first time as they got referred to the Repair Café through, for example a friend, the local newspaper or their work.

Other participants had visited the Repair Café before and because they were satisfied after the first time of repairing a broken product at the Repair Café, they nowadays always go to the Repair Café if something is broken and needs to be repaired. Therefore, the decision where to repair their broken product was not difficult for them to make. Finally, all the product owners decided to try and repair their broken product at Repair Café Wageningen on a Friday afternoon.

A reason several participants in this study narrated for bringing their broken product to a Repair Café meeting is because products can easily be examined whether it can be repaired or not. After the Repair Café technician observed and checked the product, the technician would explain the product owner if the product was repairable. The technician's advice was often seen by the participants as an 'objective advice' compared to advice given by repair stores. Therefore participants narrated this as a reason to visit the Repair Café with their broken product.

Furthermore, some participants also examine and repair their product at the Repair Café as this is from a financial point of view beneficial because it is not obligatory to pay for the examination and repair. When visiting the Repair Café, visitors may decide whether they want to donate some money for the repair and is therefore also a reason for people to join.

In addition to these reasons, some participants repaired their broken product at the Repair Café because the technicians have repair knowledge, skills, materials, and equipment to repair (almost) any product a visitor may bring to repair. According to the participants, the Repair Café technicians are an experienced group of volunteers and are incredibly driven and enthusiastic for all the repairs. Furthermore, some participants also narrated they enjoyed receiving tips, advice and anecdotes the technicians mentioned. For quite some participants the Repair Café technicians were therefore an extra reason to visit the Repair Café.

Moreover, several participants brought their broken product to the Repair Café to receive the opportunity to learn how to repair their product by themselves. Since almost all the technicians are willing to pass on their knowledge by teaching the visitors how to repair their product. Also, the opportunity to meet people in a nice and cosy atmosphere was mentioned as a positive aspect of visiting the Repair Café.

Taken all these results into account, this study is one of the first studies to do research on the reasons why people repair their product. Previous studies focused more on why people do not repair their product. By focusing on 'why people do repair', this study has, for example,

shown that repairing broken products from childhood on influences someone's lifestyle and the decision-making process in repairing broken products. As it seems that people who have grown up with repairing also want to repair broken products in later life.

Another strength of this study is that by following ten products in detail, the Repair Café network, with its human and nonhuman entities, was traceable. ANT (as analytical technique) helped in tracing how the social (in the form of visitors and volunteers) and the material (in the form of products brought to Repair Cafés) make up a collective in Repair Cafés. The Repair Café network was traceable because every narrator expressed similar meanings on how they experienced the Repair Café meeting, regardless of the product. This strengthens the generalizability of this study.

Lastly, this research has shown that Repair Cafés can indeed change the throwaway society since every participant explained that after their first Repair Café visit, they will definitely visit the Repair Café again if something in the near future breaks and needs to be repaired.

*“I will surely tell others about my experience with the Repair Café and I will definitely visit the Repair Café again if a product is in need to be repaired!”*

## References

- Adler, L., & Hlavacek, J. D. (1976). The Relationship between Price and Repair Service for Consumer Durables. *Journal of Marketing*, 40(2), 80-82.  
doi:10.1177/002224297604000213
- Alcadipani, R., & Hassard, J. (2010). Actor-Network Theory, organizations and critique: towards a politics of organizing. *Organization*, 17(4), 419-435.
- Anand, S., & Sen, A. (2000). Human development and economic sustainability. *World development*, 28(12), 2029-2049.
- Andersen, M. S. (2007). An introductory note on the environmental economics of the circular economy. *Sustainability Science*, 2(1), 133-140.
- Bakhiyi, B., Gravel, S., Ceballos, D., Flynn, M. A., & Zayed, J. (2018). Has the question of e-waste opened a Pandora's box? An overview of unpredictable issues and challenges. *Environment International*, 110, 173-192. doi:10.1016/j.envint.2017.10.021
- Beard, L., Scarles, C., & Tribe, J. (2016). Mess and method: Using ANT in tourism research. *Annals of Tourism Research*, 60, 97-110. doi:10.1016/j.annals.2016.06.005
- Bonaglia, F., Goldstein, A., & Mathews, J. A. (2007). Accelerated internationalization by emerging markets' multinationals: The case of the white goods sector. *Journal of world business*, 42(4), 369-383.
- Bonviu, F. (2014). The European economy: From a linear to a circular economy. *Romanian J. Eur. Aff.*, 14, 78.
- Booth, R. G., Andrusyszyn, M.-A., Iwasiw, C., Donelle, L., & Compeau, D. (2016). Actor-Network Theory as a sociotechnical lens to explore the relationship of nurses and technology in practice: methodological considerations for nursing research. *Nursing Inquiry*, 23(2), 109-120. doi:10.1111/nin.12118
- Boustani, A., Sahni, S., Graves, S., & Gutowski, T. (2010). *Appliance remanufacturing and life cycle energy and economic savings*. Paper presented at the Proceedings of the 2010 IEEE International Symposium on Sustainable Systems and Technology.
- Brands, S. (2018). Closing the loop: The why and who of the Circular Economy at #SB16cn. Retrieved from <http://sustainablebrandsmadrid.com/blog/circular-economy-closing-the-loop/>
- Bundles. (2019). De beste spullen als een service Retrieved from <https://bundles.nl/>
- Callon, M. (1984). Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. *The sociological review*, 32(1\_suppl), 196-233.
- Callon, M., & Latour, B. (1992). Don't throw the baby out with the bath school! A reply to Collins and Yearley. *Science as practice and culture*, 343, 368.
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry : experience and story in qualitative research* (1st ed. ed.). San Francisco: Jossey-Bass Publishers.
- Collins, H. M. Y., S. . (1992). Journey Into Space *Science as practice and culture*.
- Cooper, T. (2004). Inadequate life? Evidence of consumer attitudes to product obsolescence. *Journal of Consumer Policy*, 27(4), 421-449.
- Cooper, T. (2010). *Longer lasting products : alternatives to the throwaway society*. In. Retrieved from <http://public.eblib.com/choice/publicfullrecord.aspx?p=581327>

- Costanza, R., Cumberland, J. H., Daly, H., Goodland, R., & Norgaard, R. B. (1997). *An introduction to ecological economics*: CRC Press.
- Cresswell, K. M., Worth, A., & Sheikh, A. (2010). Actor-Network Theory and its role in understanding the implementation of information technology developments in healthcare. *BMC medical informatics and decision making*, 10(1), 67.
- Creswell, J. W. (2013). *Qualitative inquiry & research design : choosing among five approaches* (3rd ed. ed.). Los Angeles, CA: Sage.
- Creswell, J. W. (2014). *Research design : qualitative, quantitative, and mixed methods approaches* (4th ed. ed.). Thousand Oaks, California: SAGE Publications.
- Darby, M. R., & Karni, E. (1973). Free competition and the optimal amount of fraud. *The Journal of law and economics*, 16(1), 67-88.
- Davies, C. A. (2012). *Reflexive ethnography: A guide to researching selves and others*: Routledge.
- de V. Cavalcanti, T. V., & Tavares, J. (2008). Assessing the “engines of liberation”: Home appliances and female labor force participation. *The Review of Economics and Statistics*, 90(1), 81-88.
- Denzin, N. K., & Lincoln, Y. S. (2011). *The SAGE Handbook of Qualitative Research* (4th [updated and revised] edition. ed.). Los Angeles, CA: SAGE.
- Doolin, B., & Lowe, A. (2002). To reveal is to critique: actor-network theory and critical information systems research. *Journal of information technology*, 17(2), 69-78.
- EllenMacArthurFoundation. (2017). The concept of a circular economy. Retrieved from <https://www.ellenmacarthurfoundation.org/circular-economy/concept>
- Esposito, M., Tse, T., & Soufani, K. (2017). Is the circular economy a new fast-expanding market? *Thunderbird International Business Review*, 59(1), 9-14.
- Evarts, S. (2011). *Translating the translators: Following the development of Actor-Network Theory*. (Bachelor), Brown University Retrieved from [https://dev11980.files.wordpress.com/2011/09/evarts\\_susanna\\_thesis\\_4-15-2011.pdf](https://dev11980.files.wordpress.com/2011/09/evarts_susanna_thesis_4-15-2011.pdf)
- Fairphone. (2019). The phone that cares for people and planet Retrieved from <https://www.fairphone.com/en/>
- Frosch, R. A., & Gallopoulos, N. E. (1989). Strategies for manufacturing. *Scientific American*, 261(3), 144-152.
- Gad, C., & Bruun Jensen, C. (2010). On the consequences of post-ANT. *Science, Technology, & Human Values*, 35(1), 55-80.
- Govindarajan, V., & Gupta, A. (2000). Analysis of the emerging global arena. *European Management Journal*, 18(3), 274-284.
- Guiltinan, J. (2009). Creative destruction and destructive creations: environmental ethics and planned obsolescence. *Journal of business ethics*, 89(1), 19-28.
- Hellmann, K.-U., & Luedicke, M. K. (2018). The Throwaway Society: a Look in the Back Mirror. *Journal of Consumer Policy : Consumer Issues in Law, Economics and Behavioural Sciences*, 41(1), 83-87. doi:10.1007/s10603-018-9371-6
- Hoekstra, A. Y., & Wiedmann, T. O. (2014). Humanity’s unsustainable environmental footprint. *Science*, 344(6188), 1114-1117.

- House, J. (2018). Insects as food in the Netherlands : Production networks and the geographies of edibility. *Geoforum* 94 (2018). Retrieved from <http://edepot.wur.nl/453429>
- Hume, M. (2010). Compassion without action: Examining the young consumers consumption and attitude to sustainable consumption. *Journal of world business*, 45(4), 385-394.
- Ikea. (2019). Görlig. Retrieved from <https://www.ikea.com/nl/nl/catalog/products/20411703/>
- Interface. (2019). Het Net-Works-programma. Retrieved from [https://www.interface.com/EU/nl-NL/about/mission/Net-Works-nl\\_NL](https://www.interface.com/EU/nl-NL/about/mission/Net-Works-nl_NL)
- Jackson, S. (2015). Toward an analytical and methodological understanding of actor-network theory. *Journal of Arts and Humanities*, 4(2), 29-44.
- Jovchelovitch, S., & Bauer, M. W. (2000). Narrative interviewing. *Qualitative researching with text, image and sound*, 57-74.
- Kaza, S., Yao, L., Bhada-Tata, P., & van Woerden, F. (2018). *What a waste 2.0, a global snapshot of solid waste management to 2050.pdf*>. Washington, DC: World Bank.
- Kim, H. C., Keoleian, G. A., & Horie, Y. A. (2006). Optimal household refrigerator replacement policy for life cycle energy, greenhouse gas emissions, and cost. *Energy Policy*, 34(15), 2310-2323.
- King, A. M., Burgess, S. C., Ijomah, W., & McMahon, C. A. (2006). Reducing waste: repair, recondition, remanufacture or recycle? *Sustainable development*, 14(4), 257-267.
- Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling*, 127, 221-232.
- Kleine, S. S., & Baker, S. M. (2004). An integrative review of material possession attachment. *Academy of marketing science review*, 1(1), 1-39.
- Korhonen, J., Honkasalo, A., & Seppälä, J. (2018). Circular economy: the concept and its limitations. *Ecological economics*, 143, 37-46.
- Kozlowski, A., Searcy, C., & Bardecki, M. (2018). The reDesign canvas: Fashion design as a tool for sustainability. *Journal of Cleaner Production*, 183, 194-207. doi:10.1016/j.jclepro.2018.02.014
- Latour, B. (2005). *Reassembling the social : an introduction to actor-network-theory*. Oxford: Oxford University Press.
- Law, J. (1986). *Power, action and belief : a new sociology of knowledge?* London.
- Law, J. (1992). Notes on the theory of the actor-network: Ordering, strategy, and heterogeneity. *Systems practice*, 5(4), 379-393.
- Law, J. (1999). After ANT: complexity, naming and topology. *The sociological review*, 47(S1), 1-14.
- Law, J., & Hassard, J. (1999). Actor network theory and after.
- Lawlor, R. (2015). Delaying obsolescence. *Science and engineering ethics*, 21(2), 401-427. doi:10.1007/s11948-014-9548-6
- Lena. (2017). Lena the Fashion Library Retrieved from <https://www.lena-library.com/>
- Lexico. (2020). opportunity cost. Retrieved from [https://www.lexico.com/definition/opportunity\\_cost](https://www.lexico.com/definition/opportunity_cost)
- Lieblich, A. E., McAdams, D. P., & Josselson, R. E. (2004). *Healing plots: The narrative basis of psychotherapy*: American Psychological Association.

- Lipsey, R. E., & Swedenborg, B. (2007). *Explaining product price differences across countries*. Retrieved from <https://www.nber.org/papers/w13239.pdf>
- Löwer, U. M. (2006). *Interorganisational standards: managing web services specifications for flexible supply chains*: Springer Science & Business Media.
- Maitre-Ekern, E., & Dalhammar, C. (2016). Regulating planned obsolescence: a review of legal approaches to increase product durability and reparability in Europe. *Review of European, Comparative & International Environmental Law*, 25(3), 378-394.
- McCollough, J. (2007). The effect of income growth on the mix of purchases between disposable goods and reusable goods. *International Journal of Consumer Studies*, 31(3), 213-219. doi:10.1111/j.1470-6431.2006.00504.x
- McCollough, J. (2009). Factors impacting the demand for repair services of household products: the disappearing repair trades and the throwaway society. *International Journal of Consumer Studies*, 33(6), 619-626.
- McCollough, J., Bayramoglu, M. F., & He, M. (2018). Transitioning into a 'throwaway planet'. *International Journal of Consumer Studies*, 42(1), 131-140.
- McLean, C., & Hassard, J. (2004). Symmetrical absence/symmetrical absurdity: Critical notes on the production of actor-network accounts. *Journal of management studies*, 41(3), 493-519.
- Michellini, G., Moraes, R. N., Cunha, R. N., Costa, J. M. H., & Ometto, A. R. (2017). From Linear to Circular Economy: PSS Conducting the Transition. *Procedia CIRP*, 64, 2-6.
- Millar, N., McLaughlin, E., & Börger, T. (2019). The Circular Economy: Swings and Roundabouts? *Ecological economics*, 158, 11-19.
- Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing research*, 40(2), 120-123.
- Mugge, R., Hendrik, N. J., Schifferstein, H. N., & Schoormans, J. P. L. (2010). Product attachment and satisfaction: understanding consumers' post-purchase behavior. *Journal of consumer Marketing*, 27(3), 271-282.
- Mugge, R., Schoormans, J. P. L., & Schifferstein, H. N. J. (2005). Design strategies to postpone consumers' product replacement: The value of a strong person-product relationship. *The Design Journal*, 8(2), 38-48.
- Nguyen, T. N., Lobo, A., & Greenland, S. (2017). Energy efficient household appliances in emerging markets: the influence of consumers' values and knowledge on their attitudes and purchase behaviour. *International Journal of Consumer Studies*, 41(2), 167-177.
- Nimmo, R. (2011). Actor-network theory and methodology: Social research in a more-than-human world. *Methodological Innovations Online*, 6(3), 108-119.
- Packard, V. (1960). *The waste makers*. Philadelphia: David McKay.
- Page, T. (2014). Product attachment and replacement: implications for sustainable design. *International Journal of Sustainable Design*, 2(3), 265-282.
- Parker, E. (2017). An actor-network theory reading of change for children in public care. *British Educational Research Journal*, 43(1), 151-167. doi:10.1002/berj.3257

- PBL. (2019). *Circulaire economie in kaart* Den Haag Retrieved from [https://www.pbl.nl/sites/default/files/downloads/pbl-2019-circulaire-economie-in-kaart-3401\\_0.pdf](https://www.pbl.nl/sites/default/files/downloads/pbl-2019-circulaire-economie-in-kaart-3401_0.pdf).
- Polkinghorne, D. E. (2007). Validity issues in narrative research. *Qualitative inquiry*, 13(4), 471-486.
- Pollack, J., Costello, K., & Sankaran, S. (2013). Applying Actor–Network Theory as a sensemaking framework for complex organisational change programs. *International Journal of Project Management*, 31(8), 1118-1128.
- Potts, L. (2009). Using actor network theory to trace and improve multimodal communication design. *Technical Communication Quarterly*, 18(3), 281-301.
- Poulter, S. (2015). Washing machines 'cheaper to replace than fix': Manufacturers accused of making appliances too costly and complicated to repair. Retrieved from <https://www.dailymail.co.uk/news/article-3130577/Washing-machines-cheaper-replace-fix-Manufacturers-accused-making-appliances-costly-complicated-repair.html>
- Privett, S. (2019). *Summary findings of research into UK Repair Cafés impact on reducing greenhouse gas (GHG) emissions*. Retrieved from [https://repaircafe.org/wp-content/uploads/2019/01/Summary\\_impact\\_of\\_UK\\_Repair\\_Caf%C3%A9s\\_on\\_CO2\\_emissions.pdf](https://repaircafe.org/wp-content/uploads/2019/01/Summary_impact_of_UK_Repair_Caf%C3%A9s_on_CO2_emissions.pdf)
- Rees, W. (2010). What's blocking sustainability? Human nature, cognition, and denial. *Sustainability: Science, Practice and Policy*, 6(2), 13-25.  
doi:10.1080/15487733.2010.11908046
- Reeves, S., Albert, M., Kuper, A., & Hodges, B. D. (2008). Why use theories in qualitative research? *Bmj*, 337, a949.
- Rei. (2019). Patagonia Better Sweater Fleece Jacket - Girls'. Retrieved from <https://www.rei.com/rei-garage/product/158760/patagonia-better-sweater-fleece-jacket-girls>
- Repair Café International, S. (2019). *Jaarverslag 2018* Retrieved from Amsterdam: [https://repaircafe.org/wp-content/uploads/2019/09/Jaarverslag\\_2018\\_webversie.pdf](https://repaircafe.org/wp-content/uploads/2019/09/Jaarverslag_2018_webversie.pdf)
- RepairCafé. (2018). Stichting Repair Café. Retrieved from <https://repairCafé.org/stichting-repair-Café/>
- RepairCafé. (2019). Een Repair Café bezoeken. Retrieved from <https://repaircafe.org/bezoeken/>
- RepairCafé. (2020). Een Repair Café bezoeken Retrieved from <https://repaircafe.org/bezoeken/>
- Riessman, C. K. (2008). *Narrative methods for the human sciences*. Los Angeles: Sage Publications.
- Robins, N. (1999). Making sustainability bite: transforming global consumption patterns. *Journal of Sustainable Product Design*, 7-16.
- Rogoff, K. (2003). Globalization and global disinflation. *Economic Review (Kansas City)*, 88(4), 45-80.
- Ruming, K. (2009). Following the actors: mobilising an actor-network theory methodology in geography. *Australian Geographer*, 40(4), 451-469.

- Satyro, W. C., Sacomano, J. B., Contador, J. C., & Telles, R. (2018). Planned obsolescence or planned resource depletion? A sustainable approach. *Journal of Cleaner Production*, 195, 744-752. doi:10.1016/j.jclepro.2018.05.222
- Schaefer, A., & Crane, A. (2005). Addressing sustainability and consumption. *Journal of macromarketing*, 25(1), 76-92.
- Schifferstein, H. N., & Zwartkruis-Pelgrim, E. P. (2008). Consumer-product attachment: Measurement and design implications. *International journal of design*, 2(3).
- Scott, K. A., & Weaver, S. T. (2014). To repair or not to repair: what is the motivation? *Journal of Research for Consumers*, 26(1).
- Seal, C. (2002). *Qualitative research practice*. London & Thousand Oaks: CA: Sage.
- Sheehan, R. (2011). Actor-network theory as a reflexive tool:(inter) personal relations and relationships in the research process. *Area*, 43(3), 336-342.
- Sismondo, S. (2010). *An introduction to science and technology studies* (2nd ed. ed.). Malden, MA: Blackwell.
- Snappcar. (2019). Huur een auto bij jou in de buurt Retrieved from <https://www.snappcar.nl/>
- Spacey, J. (2017). 5 Examples of a Credence Good Retrieved from <https://simplicable.com/new/credence-good>
- Swapfiets. (2019). Voor een vast bedrag per maand krijg jij een Swapfiets. Retrieved from <https://swapfiets.nl/>
- Tukker, A. (2015). Product services for a resource-efficient and circular economy - a review. *Journal of Cleaner Production*, 97, 76-91. doi:10.1016/j.jclepro.2013.11.049
- Van Nes, N., & Cramer, J. (2006). Product lifetime optimization: a challenging strategy towards more sustainable consumption patterns. *Journal of Cleaner Production*, 14(15-16), 1307-1318.
- Vlek, C., & Steg, L. (2007). □ Human Behavior and Environmental Sustainability: Problems, Driving Forces, and Research Topics. *Journal of social issues*, 63(1), 1-19.
- Vries, G. d. (2016). *Bruno Latour*. Cambridge, UK ;: Polity Press.
- Walsham, G. (1997). Actor-network theory and IS research: current status and future prospects. In *Information systems and qualitative research* (pp. 466-480): Springer.
- Wasteboards. (2015). skateboards made from recycled bottle caps. Retrieved from [wasteboards.com](http://wasteboards.com)
- Webster, K. (2015). *The Circular Economy: A Wealth of Flows*: Ellen MacArthur Foundation Publishing.