Sharing with neighbours: Insights from local practices of the sharing economy

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A B S T R A C T

This paper explores the use of sharing economy platforms at the neighbourhood level. We aim to discuss appropriations of these technologies by studying the variety of user motivations and experiences. For that purpose, we conducted a case study of the Norwegian sharing platform "Nabohjelp" designed for use in neighbourhoods. Our data is based on qualitative interviews conducted with Nabohjelp users and representatives of the platform owner and developers, as well as statistics provided by the platform owner. Drawing upon the script theory from science and technology studies, we analyse how people use Nabohjelp and to what extent their use corresponds with the script of the platform owner. Our analysis shows that platform owner inscribed Nabohjelp users as individuals who wish a lower threshold to reach out their neighbours and are conscious about sustainable behaviour. Indeed, the motivations of our informants in using Nabohjelp match these envisioned user profiles. We observe, however, some instances of usages where informants make use of the platform in ways that the designers had not foreseen, thus extending the script of Nabohjelp. Our study also reveals two important issues that play a significant role in shaping user experiences and participation. First, Nabohjelp's payment feature is identified as a barrier that weakens user experiences and undermines participation. The payment feature appears ambiguous to some users, causing confusion about the purpose and the idealistic image of the platform. Second, our results suggest that the neighbourhood context contributes to strengthen trust, one of the core enablers for participation in sharing economy. These results can inform policy makers who intend to adopt digital sharing approaches with the aim to encourage sustainable behaviour in neighbourhoods as well as developers of digital sharing platforms.

1. Introduction

The "sharing economy" has attracted much attention over the past decade, supported by internet-based sharing platforms that allow users to easily share privately owned information and resources. Allowing peer-to-peer sharing, platforms of sharing economy have been exalted for their environmental benefits, promising an equitable and sustainable distribution of resources [1]. Moreover, enabling what Schor [2] calls "stranger sharing", the social benefits of sharing platforms are often highlighted [2–4]. In this sense, the positive symbolic value of sharing is so widespread that platforms want to be included under the term "sharing economy" [5].

Despite the promises of sharing economy as being social, fairer and environmental, there is little knowledge about the impacts of sharing economy [5] and about motivations to participate in the sharing economy [3,6]. Moreover, the existing research studies about drivers and impacts of the sharing economy mainly relate to the usage of platforms in a global context, whereas local communities and neighbourhoods provide us with complementary cases to study both the motivation for, and the outcomes of participating in the sharing economy (see also [7]). There has been some research trying to bridge online networking and neighbourhood networking through existing social network platforms [8] and customized solutions [9,10]. However, many open questions remain, such as understanding the impact of proximity on motivations

and barriers, the types of services suited in a confined neighbourhood, and the effects of sharing on the local communities.

This article seeks to contribute to this knowledge gap, by providing an empirical study on the use of sharing economy platforms at the neighbourhood level. For this purpose, we conducted a case study on the Norwegian sharing platform "Nabohjelp" (Norwegian for "help a neighbour"). Nabohjelp, specifically designed for sharing in neighbourhoods, is an interesting case because it supports various forms of sharing, such as sharing things or services, and both free and paid exchanges. Additionally, Nabohjelp has built a critical mass of users allowing for a good functioning of sharing. Based on interviews with users of Nabohjelp, as well as usage data, we identify motivations and barriers for using the platforms, the usage patterns and the experiences. To analyse and interpret the results, we draw upon the script theory from science and technology studies in order to compare the vision of the platform owners with the actual adoption of the platform [11,12].

The presented study is conducted within the scope of the Norwegian research collaboration project Sharing Neighbourhoods. The project involves a multidisciplinary researcher team (ICT, social and cultural studies, architecture, applied economics). Reaching citizen that lack social networks or are socially isolated is hard. Therefore, voluntary and ideal organisations with long experience in citizen inclusion play a major role in the project.

2. A glance at sharing economy

2.1. Concepts

Despite its popularity, there is much confusion about the concept of "sharing economy". Big commercial actors, such as Uber and AirBnB, dominate the scene, also influencing the way we understand sharing economy. Sharing economy, collaborative economy, peer economy, gig economy, on-demand economy, shared capitalism, access economy, and people economy are some of the terms being used for platform-supported exchanges of goods, services, money and knowledge [1]. In order to facilitate discussion about collaborative and sharing economy, frameworks have been proposed aiming at establishing a common understanding. The report "Making sense of the collaborative economy" identifies the following traits of collaborative economy: enabled by internet technologies; connecting distributed networks of people and/or assets; making use of the idling capacity of tangible and intangible assets; encouraging meaningful interactions and trust; embracing openness, inclusivity and the commons [13]. Further, they suggest a classification according to the purpose to the type of activity or purpose: consumption (i.e., access to goods and services), production (i.e., collaboration to the design, production or distribution of goods), learning (i.e., sharing knowledge) and finance (i.e. services outside of traditional financing institutions). Complementary to this classification they consider different business models or delivery models: peer-to-peer, business-to-consumer, business-to-business, and consumer-to-business. Related to collaborative consumption, the conceptual framework of Frenken and Schor defines the sharing economy as "*consumers granting each other temporary access to under-utilized physical assets ("idle capacity"), possibly for money.*" [5]. It includes three akin concepts that differ from sharing economy in the aspects of type of assets being shared, access duration and type of provider: "on-demand economy", also called "gig economy" where transactions deal with the purchase of services rather than the sharing of physical assets; "second-hand economy" with a permanent access to assets; "product-service economy" where assets are rented from a company. With respect to these frameworks, our research addresses collaborative consumption with a peer-to-peer model, more specifically sharing economy and on-demand economy.

2.2. Motivations

Aiming at understanding the motivations of collaborative consumption, Böcker and Meelen studied the consumer and provider roles in different forms of economy and different sectors in Amsterdam: tool sharing, accommodation sharing, car sharing, ride sharing and meal sharing [3]. In line with the triple-p (people-planet-profit) framework of sustainability [13], they investigated environmental, social and economic motivations. Their study indicates that motivation *social, environmental, economic* and *practical aspects* differ based on the sector [14]. Individuals seem more likely to share low cost items (tools and meals). When sharing expensive assets, motivations tend to be mostly economic. In this regard, it is also important to highlight the role of trust when studying people's participation to sharing economy. Sharing is closely related to trust and trust was referred as the currency of the sharing economy [15]. Möhlmann and Geissinger state that trust is a precondition for successful transactions in the sharing economy. In this sense, trust influences decision making concerning participation as trust presupposes awareness of risk [16], and lack of trust seems to be the most significant factor for not participating in sharing economy [17].

Beyond economic motivation, Böcker and Meelen also found that social motivation is a secondary factor in accommodation sharing, and environmental motivation in car sharing [3]. Ride sharing and meal sharing have a high social component. Their study also depicts some differences between consumers and providers. For example, consumers are economically motivated in tool sharing, while providers not. Differences between socio-demographic groups are less evident, although older people, despite lower income levels seem to be more likely to participate for social reasons rather than economic reasons. The findings of Tussyadiah in a study focusing on consumers in peer-to-peer accommodation rentals in the US, are in line with those of Böcker and Meelen: the highest motivation factor in that sector is the economic benefit, but still community and sustainability are important factors [18]. Tussyadiah also found that consumers in that sector tend to be more educated and to earn higher income. Additionally, Tussyadiah identified barriers to the economy: lack of trust, lack of efficacy and lack of economic benefits. A recent survey with online Italian users indicated that participation in the sharing economy is influenced by both extrinsic and intrinsic motivations, including monetary and nonmonetary drivers, sustainable development and social responsibility concerns [19]. The study also found a positive influence of the level of knowledge and familiarization with the sharing market on participation, and a statistically insignificant influence of product availability and practicality.

Hamari, Sjöklint and Ukkonen [6] also investigated people's motivations to participate in collaborative consumption with focus on the relationship among attitudes towards collaborative consumption, intentions to participate and actual participation behaviour. To that end, they conducted a survey with users of marketplaces built upon Sharetribe. According to their findings, perceived sustainability and enjoyment (intrinsic motivations) seem to be strong determinators of attitudes, while reputation and economic motivations (extrinsic) had no positive effect on attitudes. Their research further finds that, despite positive effect on attitudes, perceived sustainability had lesser influence on actual participation. In that sense, they argue that there might be discrepancies between attitudes and actual behaviours. Martin, Upham and Klapper [20] made similar findings in their research about democratic platform governance models. In a study of a second-hand economy platform, they found that engagement is associated with social and instrumental values, but not to environmental values, thus suggesting that sharing economy activities can be understood as practices supported by social and pragmatic orientations.

With respect to these studies, our research differs both in focus and methodological approach: we address local communities and apply qualitative methods seeking to explain motivations and barriers.

As a means to understand motivations for participation, Piscicelli et al. investigated the individual values that influence acceptance, adoption and diffusion of collaborative consumption [21]. Applying the theoretical value framework of Schwartz et al. [22], they studied the users of the online Ecomodo marketplace for sharing tools and skills in

UK. Their analysis identified a common value orientation towards self-transcendence (i.e., benevolence and universalism) and openness to change (i.e., self-direction and stimulation). On another hand, conservation values (i.e., security, tradition, conformity) seemed to play against collaborative consumption, what Piscicelli et al. explains by the radical change introduced by digital collaborative consumption and the importance of trust in the sharing with strangers. At the time of the study, the platform Ecomodo strove to reach a critical mass. Piscicelli et al. argued that individual values may partly be responsible for failure in wide acceptance of the platform, as it only appealed a limited number of consumers sharing specific value orientation.

In our case study, we rather investigate the gap between the vision of a platform provider and the expectations and usage of platform users. Understanding this gap allows us to identify potential enhancements to appeal more consumers.

2.3. The role of trust

The concept of trust, both abstract and complex, is studied across numerous disciplinary fields [23], and conceptualizations of trust differ significantly between different social and cultural contexts [24]. Put simply, trust can be defined as something that helps people to overcome uncertainty and allows them take risk which is necessary to engage in transactions [25,26].

The literature on trust in sharing economy distinguishes between trust in *platform,* trust in *product*, and trust between *peers* ("3P")*,* that is, *users* and *providers* [15,27]. Trust in and between peers tends generally to be put in relation to reputation and feedback systems and their extent, and users' propensity of trust [27]. Sharing economy platforms often hold mechanisms such as ratings, reviews, trusted payment, etc., lowering the risk of sharing with – and strengthening trust between – strangers. Many researchers argue that the mediating sharing economy platforms hold a particular role in facilitating trust, and thus, sharing [6, 15,23]. Möhlmann finds trust in the platform and the platform provider to be the focal construct of trust, having positive effects on the trust in peers [28]. Thus, she argues trust in sharing economy to be a twofold, hierarchical construct.

Möhlmann and Geissinger argue that trust in peer-to-peer context is shaped by how platforms manage to facilitate, mediate and enhance trust between peers [15]. Here, the platform provider is considered as an enabler of trust between users, and it must manage the users' perceptions of other users and items exchanged in the platform. Furthermore, the platform provider should also be perceived as a trustworthy institution itself [15]. These two aspects of trust are referred to as *interpersonal* and *institutional* trust by Möhlmann [28]. Since the different aspects of sharing economy are typically not subjected to standardizations or regulations, interpersonal and institutional trust, facilitated by the platform, is particularly important to enable sharing economy transactions [27].

3. The script analysis

The sharing economy contains perspectives of a greener economy, increased sense of community, meaningful relationships and so forth either by its design or by the way people turn to them [Stokes et al., 2014]. Aiming to study how users of Nabohjelp appropriate the platform and what kind of motivations they have in adopting this technology, we utilize Script Analysis from science and technology studies. Script analysis is particularly useful in studying how a particular technology, designed for a particular end, is appropriated by the users. Depending upon how they are designed, artefacts permit and prevent certain courses of action. To use the sociological jargon, they "configure" their users [29]. Put simply, script analysis draws upon an understanding that technologies are not neutral, and that they contain the worldview, visions or assumptions of the designers [30]. Accordingly, as designers develop an artefact, they make hypotheses about the users and their

surrounding in which the artefact will be utilized [11]. In Science and Technology Studies, the designers' vision is referred as a script or scenario, and the process through which designers try to materialise their script in an artefact is called in-scription [11]. The in-scriptions, however, are not passively received by the users. That is, in-scriptions are subjected to sub-scription (acceptance), de-inscription (rejection) and re-inscription (modification) through which the users react to what has been prescribed to them [30]. In some cases, de-inscription can result in users re-inscribing their own vision for use. Providing us these terminologies, script analysis provides us with analytical tools to study the reciprocal relationship between people and artefacts [11].

In this paper, we use script analysis in studying the vision of OBOS, the owner and developer of Nabohjelp. In doing so, we look at both the design and the technical aspects of the help. As the Norwegian historian Kjetil Fallen argues, script analysis can be useful to understand how "a product's utilitarian functions, aesthetic expressions, social meanings, and cultural identities are constructed" [12]. We also utilize script analysis in analysing the motivations of users of Nabohjelp. In doing so, we discuss to what extent the users' appropriation of Nabohjelp matches to the vision of OBOS.

4. Research design and methods

Aiming to explore how sharing economy platforms are used at the neighbourhood level, our research was organized as a case study centered around the Norwegian sharing platform Nabohjelp [31]. Through the case study, we do not prove or disprove a hypothesis, but rather seek to understand the appropriations of the platform by users. We address the following research questions:

- How is the vision of Nabohjelp described by OBOS, the platform owner and developer?
- How are users of Nabohjelp in-scribed in the platform through its features and design choices?
- How do users describe their initial motivation for using Nabohjelp?
- In which ways and to what purposes do users utilize Nabohjelp?
- How is Nabohjelp sub-scribed, de-inscribed and re-inscribed by the users?

4.1. Data collection

The research orientation was qualitative, with semi-structured interviews as the main method, aiming at an in-depth understanding of the platform and its usage. As a first step, in order to prepare further investigation, the researchers used the app themselves to get acquainted to its features. Then, interviews targeting owners and users were performed:

- A semi-structured group interview of employees at OBOS was performed with the goal to understand the vision of OBOS, the rationale for the features of Nabohjelp and their experiences as platform provider. A business developer and a product developer participated in the interview.
- Semi-structured interviews were conducted with users of Nabohjelp with the goals to understand motivations, usage and experiences. The informants were recruited through the app in two cities: Oslo where most app users are registered (8 informants) and Trondheim where activity on Nabohjelp is still moderate (4 informants). Men and women were equally represented. The ages spanned from 23 to 60, with 6 informants aged below 30. Their professional background varied, including hand-workers, engineers, consultants, sociologists and students. Informants had used Nabohjelp for different durations (from 1 month to a couple of years) and were more or less active. All interviews lasted 45–60 min. Interviews with users in Trondheim

were conducted Face-to-Face, and others by phone. All interviews were recorded.

Some quantitative data about the usage of Nabohjelp were provided by OBOS upon request from researchers. Because of privacy concerns, e. g. no insight in dialogues between users, or lack of reliable data, OBOS was only able to provide a subset of the requested data. The quantitative data are not analysed to answer research questions, but as background to present the case study.

4.2. Data analysis

Interviews were transcribed and coded using the Dedoose tool. Data analysis was performed in an inductive way following Klein and Myers's framework [32]. The researchers performed a first independent round of thematic analysis, resulting in a number of initial topics [33]. Then, a refined set of topics was iteratively created through researchers' collaboration.

5. Case description: Nabohjelp

In this section, we introduce Nabohjelp based on own exploration of the platform features and summarize some statistics provided by OBOS, the platform owner and developer. Since its first release, Nabohjelp has continuously been extended. This paper relates to the version available in the spring 2019 at the time interviews were conducted. We end the presentation with enhancements introduced in autumn 2019.

OBOS is Norway's largest housing cooperative. They own and manage residential buildings, and supply housing to their members. OBOS's vision is to help people entering the housing market. At the end of 2019, OBOS had over 473 000 members (around 8% of the Norwegian population). Nabohjelp was launched in May 2017. It was first marketed through OBOS internal information channels and provided to a subset of residences. After an initial piloting phase in a context well-known by OBOS, access to the platform was extended to the whole country beyond OBOS residences.

5.1. Nabohjelp features

With respect to the conceptual framework proposed by Ref. [5], Nabohjelp combines sharing economy (i.e., providing temporary access to physical assets), on-demand economy (i.e., providing services) and second-hand economy (i.e., providing permanent access to physical assets). The users access the platform features through the mobile app Nabohjelp. The app does not use the term "sharing", but rather "asking" and "offering". Beyond support for sharing, Nabohjelp also enables users to notify private events. In the case of temporary access, users can both ask for or offer assets or services. In the case of permanent access, users can only offer assets. When adding a post, users should specify whether payment is expected or not. Posts are available to all people living in proximity of the publisher within a configurable geographical range (max. 3 km). Dialogues between publisher and answering users are private.

Besides the basic functionality for sharing, Nabohjelp provides functionality for user management, content management, statistics and a communication channel with OBOS. During registration, the user's identity is being checked, either through verification of the phone number or through logging via the Norwegian electronic identification service BankID, thus preventing the creation of fake profiles. Users set up a user profile including address, size of neighbourhood (200 m - 3 km), notification settings and optionally a profile picture. Nabohjelp supports filtering of content according to types of posts and categories (i. e., sport and leisure, tool, food, furniture, clothing, data, transport and carrying, shopping, parents and children, pets, assembling furniture, home and garden, car and parking, advices and other). Posts and users can be hidden, and dialogues archived. Posts expire either when marked

as resolved by the user or automatically upon a period specified by the user (max. 30 days). Nabohjelp also provides local statistics about the number of neighbours and requests, the number of new users and requests during the last week, the number of solved requests, the most urgent request and the most popular request. Finally, users can contact OBOS to report errors, propose enhancements, or discuss other issues. Posts can also be reported to OBOS when a behaviour is found undesirable.

5.2. Statistics

End of summer 2019, Nabohjelp had over 110 000 registered users, among them 40% in Oslo. Around 30–35% use the app each month. The number of users was steadily increasing with an average of around 2200 users per month during the first half-year 2019. However, the number of requests had stabilized to an average of around 2300 requests per month since June 2018. Users under 35 are most active. As the types of requests are concerned, "asking a neighbour for help" is the most popular (average of around 66% of all requests), followed by "giving away or selling a thing" (around 22%), "offering help" (around 10%) and notifying neighbours about some events (around 4%). The figures are similar for Oslo and the whole country. The response rate in Oslo is quite high with around 64% for "asking a neighbour for help", 35% for "giving away or selling a thing" and 52% for "offering help". Thus, the sharing economy activities ("asking and offering") are more successful than the second-hand economy activities ("giving away or selling"). According to OBOS, the most popular activities are borrowing tools and taking care of pets, and most activities are done gratis. OBOS did not however provide detailed statistics about it.

5.3. Latest enhancements

In autumn 2019, after interviews were conducted, new features were added to Nabohjelp. In particular, Nabohjelp now support informing about events and public places. Organisations are provided a web interface allowing them to describe events and places. Contributions are reviewed by OBOS before publication. With this new information, the content becomes richer, and OBOS has added new functionality to facilitate browsing. A map interface is provided in addition to the initial textual thread interface, and filtering support is extended.

6. Empirical results

In what follows, based on the analysis of our interview of two representatives of OBOS we first present the vision of Nabohjelp and discuss how users are in-scribed in this platform through various features and design. Users of Nabohjelp are mainly in-scribed as individuals who need their neighbours for exchange of services and items, who are willing to socialize with their neighbours, or who are driven by the potential environmental benefits of sharing. They are also in-scribed as experiencing a threshold to reach out to their neighbours.

Then, based on the analysis of our interviews with users, we look at various appropriations of Nabohjelp by the users and analyse how the platform is sub-scribed, de-inscribed and re-inscribed. We first present informants' motivations to download and start using the platform. We proceed with looking at the various ways they utilize the platform, seeking to understand whether practices conform to motivations. We further present experiences. Motivations and experiences are likewise important, by respectively attracting and retaining users to the platform. Finally, we will elaborate on enablers and barriers for usage, and possible enhancements of the application. As part of the presentation, we investigate the ways in which users follow the script, and the ways in which they sub-scribe, de-scribe and re-scribe Nabohjelp.

Illustrative quotes are provided in the following. We use numbers to refer to the interviewed users of Nabohjelp (e.g., I3 for informant 3) in order to avoid exposing their identity. Quotes are translated from

Norwegian, except for "i1" where the interview was conducted in English.

6.1. The vision of Nabohjelp

The vision of OBOS is twofold. First, they wished to strengthen their housing projects through encouraging and facilitating social relations among residents. A particular concern was to support people who have newly moved in to get known with their neighbours and to help them solve practical tasks, and to lower the threshold for asking neighbours. Second, OBOS wished to consolidate their branding through fostering sustainable behaviour and saw the trendiness of sharing economy as an opportunity: *"OBOS get much positive feedback because sharing economy and sustainability are trendy"*. Discussing commercial concerns, our informants explained that OBOS is investigating various paths to revenue, such as local advertisement, but pointed out that any advertisement should be *"neighbour-friendly"*. They assured that *"the core will remain that of helping neighbours"*. Thus, in the design of Nabohjelp, users are in-scribed as individuals who need their neighbours with whom they can exchange services and items. Users are also in-scribed as those who experience barriers to contact strangers directly. Through the usage the platform, OBOS wishes to strengthen the social relationships in the neighbourhoods, as well as hopes to contribute to sustainable behaviour by attracting attention to sharing economy as an opportunity. The vision of Nabohjelp, in this sense, mirrors the general user tendency in sharing economy. As Juliet Schor notes, participants of sharing economy are strongly driven by economic, environment and social factors [2]. According to OBOS, potential users were and are involved in the development of Nabohjelp. First, interviews of residents were conducted to identify initial needs. User feedback is collected regularly through surveys, and users are involved in co-design workshops to sketch enhancements and extensions. Prior to Nabohjelp, many residences had established Facebook groups with two main purposes: providing an information channel for the residence steering board and supporting communication between residents. In large residences, formal information tended to get drawn among exchanges between residents, and two different groups were sometimes established for the different purposes. In that context, Facebook worked fairly well as a channel for sharing, however sometimes deterred by the lack of privacy. On the contrary, it did not work well in small residences, and, thus, extending exchanges to larger neighbourhoods in order to reach more users was relevant.

The application was marketed through various channels, such as TV, advertising in public transportation and sponsored ads in Facebook with particular focus on the region of Oslo where most OBOS residential houses are located. Popular rating in the application markets App Store (over 600 ratings late 2019 with a score of 4.8 out 5) and Play Store (over 400 ratings late 2019 with a score of 4.7 out 5) contribute to high ranking in search results. Most users are in age range 20–40, and our informants explained that marketing was designed to reach this age. Young people, according to our informants are environmentally conscious.

An important factor for the well-functioning of collaborative economy is the ability to build trust between strangers [34]. Most platforms implement various mechanisms to strengthen trust between users, such as ratings, reviews, trusted payment, lowering the risk of sharing with strangers [17]. Nabohjelp supports a main trust mechanism: preventing the creation of fake profiles through verification of the user's identity. Discussing the topic of trust with users, OBOS found out that this verification was sufficient. A few users, worried about digital tracking, had wished to stay anonymous on the platform, but for most users, it is important that people belong to a neighbourhood with full identity. Besides technology-enabled trust, our informants also believed that *"Nabohjelp is provided by OBOS, and it is itself contributing to create trust."*

Despite the name of Nabohjelp, users can also require payment for a transaction. Again, this design choice stems from the user feedback.

Users considered that small tasks can be done free, but they would appreciate a fee for time-consuming tasks, e.g. taking care of a dog. Through supporting payment, OBOS also expects preventing users from moving to other platforms. OBOS surveys showed however that *"users are willing to help"* and, when asked about what they like in their neighbourhoods or what they lack, users described core values such as *"when I was young, we did things together, we helped each other.*"

OBOS play a limited moderation role in the platform. They have no resources to browse users' posts, but sometimes look at samples. Thus, they mainly rely on users reporting annoying or illegal behaviour (reporting is a feature of Nabohjelp). For example, users are not allowed to sell alcoholic beverages in Norway. OBOS send warnings to reported users, create logs and exclude users if unwelcome behaviours are repeated. Tracking is limited to posts (i.e., offers and requests). By law, OBOS are not allowed to read private dialogues between two users. A few cases of harassment between users have also occurred. OBOS depend then on user reports.

Related to the latest enhancements of the platform and cooperation with ideal organisations that were, our informants also mentioned broader visions *"To enrich the neighbourhood"*, *"To create security and trust, what we OBOS want to represent"*.

6.2. Users' motivations

Drawing upon interviews with users, we observe that the informants' motivations to download and start using the platform correspond with OBOS's in-scriptions.

Some informants decided to test out the platform subsequent to a situation in which they needed to borrow something or get a service. In this sense, Nabohjelp appeared as a convenient way to ask for help, as illustrated by the following quote where the user turned to Nabohjelp, rather than friends, to ask for help. The quote also illustrates how Nabohjelp is considered to reach out someone with similar interests, in that case, someone who is interested in taking care of animals:

"I was looking for help because I have a rabbit, and then I was having trouble and I thought this time I will ask someone who really loves to look after animals rather than ask a friend, so I just installed and tried to figure out if this is a way to find some people and that's why I installed the app." [i1]

Similarly, another user installed and started to use Nabohjelp when she moved into a new apartment and needed help for various small things in her new place. Here, Nabohjelp is also referred to for its potential to lower the threshold to reach out others for asking help especially when one does not have a strong network:

"I needed help for different things in my apartment after I moved in. I had found out that the app was a good way of asking help as I had not known many in the neighbourhood. I also wanted to get to know my neighbours, and Nabohjelp was a very low threshold way to ask and offer help, as well as get to know people." [i2]

The social aspect is pronounced more explicitly by one informant:
"I think there is something that has been lost a little over the last ten years or. I myself grew up in a small town where everyone knew each other and where everyone helped each other very much. So, it was really always the case that people from all over the street were with us or we were with them. My parents knew everyone after all. They grew up there. I missed it a bit. My generation, born in the 80's, may need technology to re-create a community because it doesn't come naturally. Not many people grew up here. It's pretty mixed here. There are many immigrants and foreigners who are not as well-known as Norwegian here. And that's why I thought it is a good idea to have such an app and maybe get to know a little. First someone needs something and then you help each other and then you have a beer together. And it happened too. I have experienced that, and it was very nice." [i12]

The quote above expresses as sense of worry for weakening social ties

with the neighbourhoods. Comparing neighbourhood relations to 30 years back, the informant suggests that it is no longer easy for communities to appear naturally, rather they need to be reinforced. Here, digital platforms are considered as a potential means of reinforcing social ties and establish communities. The way that the informant refers to digital platforms as a facilitator to form communities is worth underlying when the increasing use of digital communication technologies is associated with being the cause of weakening community ties [35].

Another informant mentioned that his primary motivation to use Nabohjelp is to expand his social network. To him, having a social network is crucial in the sense that he can utilize this network for various purposes, such as when he is looking for a job. Exchanging help and services with the neighbours, in this regard, is not solely considered as a means of establishing new social relationships but also to build a network for professional goals, thus illustrating a slight adaptation of the script, a re-inscription to exploit Nabohjelp as a professional networking tool.

The motivation to socialize through Nabohjelp, however, is not shared by all. One informant mentioned social outcomes of the use of platform as secondary factors in his motivation to use Nabohjelp:

> *"Was getting to know new people one of my motivations for using the app? My answer is no. But yes, it certainly can be nice. But somehow, that's not the most important thing about it. Perhaps the most important thing for me would be to either get help or get how do I say this. It would be to solve a need that I have. More than a social need. Also, I thought it was nice if it could be through the neighbours then."* [i6]

This quote does not illustrate a rejection of the script, but a partial acceptance. The practical aspect of the platform is received stronger than the social aspect, or that the social aspect is not included as an expected outcome of the platform usage.

It is also important to emphasis on how the users receive Nabohjelp's concerns in respect to OBOS's wish to foster sustainable behaviour. Awareness about the environmental and economic outcomes of using Nabohjelp are expressed by several informants, emphasizing how important it is to circulate unutilized assets:

> *"I'm passionate about sharing and I have a lot of interest in it. Such a service as this is something I have long wanted. It's something I care about, for example, it's stupid when you buy things you don't really use that much because you can simply borrow it from your neighbour, and you don't use it that often, so it's probably a lot of the same in drawers around the same building you live in. So yeah there is also something I think of as an environmental issue that was also one of the main reasons why I installed the app."* [i5]

> *"I have used some sites earlier similar to the app. Everything from Couchsurfing to car sharing. I think sharing is brilliant. Because it allows us to avoid buying everything. Everyone does not need to buy everything. Both for the personal and private economy, but also for the environment."* [i8]

To summarize, we observe that the social, environmental, economic and practical aspects the platform are motivating the users together. People who lack a social network, expect to benefit from Nabohjelp to get their needs covered, and some expect to build a new social network or strengthen their network in the neighbourhood they live in. Users also see a potential in Nabohjelp to reinforce sustainable behaviour. In this sense, the identified user motivations demonstrate that appropriation of Nabohjelp can be regarded as sub-scription. In other words, the inscribed user interests in socializing, receiving help, and engaging in sustainable behaviour via the platform is largely accepted by the informants.

6.3. Usage practices

Our informants have taken Nabohjelp in use in different ways, both to ask and offer, both for assets and services, both for small things and comprehensive tasks requiring expertise. The following quotes present some of these practices:

> *"I have mainly asked for things. Also, when I have seen someone asking, then I have offered help."* [i5]

> *"I often borrow my stepladder out. Or I have borrowed my power adapter out, I've looked after plants, and yes … I have borrowed shoes."* [i9]

> *"I have helped sick people and bought medicine for them. For example, if they cannot go out because they are too sick. I've looked after the dog of a neighbour. Many dogs actually. There are dogs I've been looking after for weeks, up to a month."* [i10]

> *"I focus on building tasks. I help as a carpenter, electrician, plumber. Yes, this kind of work."* [i7]

Our informants also mentioned that the platform provided them a low threshold for asking for help or support without being ashamed or setting pressure on neighbours:

> *"After a while, I found I could ask for help. But it's a little embarrassing, in a way, to ask. You feel like begging... if you don't have money to pay, then you feel a little small …. But no one is forced to say yes or no. So, it's really good."* [i11]

As mentioned before, a central concern for OBOS was helping users solve practical tasks and giving them opportunity to ask for help. In this regard, our informants' practical usage of Nabohjelp can be read as sub-scription to the vision of OBOS.

When it comes to how informants respond to the requests, our data shows that flexibility and convenience to participate when, where and how plays a critical role. That is, informants appreciated the flexibility in answering a request when it suits them best:

> *"I think it is good to have flexibility in such projects. If the time is fixed, then either job or other things can turn up and get in the way."* [i10]

In responding the requests, proximity also seems to play an important role. That is, requests sent from nearby are found to be easier to respond for some. The informants also enjoyed the flexibility of deciding what they would like to lend or not. One of the informants said that he was keener to lend out a simple tool than an expensive tool. Another informant pointed out that proximity makes helping easier. Also, she handled requests easy to deal with, such as providing advice. In this sense, having the possibility to respond to requests voluntarily and selectively seems to play a significant role in determining user participation in Nabohjelp.

These examples also illustrate sub-scription as Nabohjelp is anchored in the concept of sharing economy, where flexibility and convenience to participate is a key enabler for a well-functioning sharing [19].

6.4. Experiences

One of the goals OBOS wishes to achieve through Nabohjelp is to strengthen the social relationships in the neighbourhoods. Indeed, we observe that informants have experienced different incidents of socialisation through their use of Nabohjelp. In some cases, informants find themselves being socialized unexpectedly. That is, a meeting between users during the exchange of a service or tool may evolve into a social situation, and users may spend more time together than initially expected:

> *"It was funny. I asked to borrow a headlamp. And one answered he had it. I went to meet him and started to talk and talk for quite long time because we had many common interests. And it was raining cats and dogs, and we just kept on talking and talking. It was very nice."* [i5]

"For example, there was a couple who was getting married and preparing the wedding. They were sending out invitations but did not know how to make labels with addresses on. And I knew that. Then I printed it out, and we met, and had a beer together. They were very grateful. I was very happy to contribute a little for the wedding." [i12]

We also observe that experiences of socialisation can be long lasting for some:

"My neighbour whom I keep in touch with, baked apple pie for me. The other lady gave me gifts and sweets from another country. This is the kind of things they have given to me. And I bought flowers for the neighbour whom I keep in touch with. I think it's nice." [i10]

While these examples illustrate tighter relations between individuals, none of the informants mentioned an effect on the whole neighbourhood. However, by participating in Nabohjelp, users may get better known with their neighbours, and this investigation is a necessary initial step in socialisation [Moreland and Levine, 1982]. Two informants explained that they wanted to understand the potential in a neighbour network, for example:

"I was perhaps a little curious to find out what a neighbour network can be used for. We have a small social group on Facebook in our residence, but I don't know. There, there are posts I don't feel concerned with. So, I was interested to find out if it was possible. What kind of requests. What one can use a neighbourhood for." [i6]

Beyond socialisation, Nabohjelp may also offer a channel for social inclusion. One informant, a woman suffering from a chronic disease, was mostly sitting home. Over 50, she does not fit the marketed target group 20–40, but still, she was the most eager to participate among our informants. For her, being able to help is empowering:

"I feel it is good that I can do a little. That I can give a little back to the society. Contribute with the little I can. It's nice for me to being able to help too." [i11]

Further, because she has time, she tightly follows the activity in Nabohjelp and acts as a facilitator between Nabohjelp users and other networks, thus extending the script:

"If I get a message, I can ask someone else. I can expand the search. I can come back and tell that I know someone who has such and such, call there." [i11]

Also partially modifying the script, several informants described that contacts established through Nabohjelp are pursued through other channels. While the social goal is achieved, this may lead to fewer active users on Nabohjelp, and may weaken its well-functioning. Some informants described:

"I actually have very good contact with some people. In the last 4 months, I have helped two persons very often, and kept in touch with them then. So, we have become good friends. We talk to each other, invite each other, and give extra help. I think that is very important. It's not just for helping people, it's okay to meet new people then, of course. Because then you have a larger network in the area you live in. You can keep closer contact with those who live around you. I think that is very nice." [i10]

"Once, there was a woman cleaning out her mother's apartment, so I got some lamps. I did not have any. Three weeks later, she sent an SMS to my mobile and asked whether I would like to have some other things. I was so happy for what I got." [i11]

The social effect of Nabohjelp, however, is not shared by all. One informant felt that the support for payment is a threat for the vision of strengthening neighbourhoods (we describe payment in more details below):

"At least, in the way the app is used today, and based on the inquiries, I would say that you mostly experience "buying and selling". And as long it is so, I think it will not strengthen the neighbourhood. But if the app content becomes more idealistic, then this could change." [i6]

Besides social behaviour, another important concern of OBOS is that of fostering sustainable behaviour, including also environmental and economic aspects. Indeed, several informants mentioned reuse and waste reduction as a positive outcome of using the app. In that way, Nabohjelp may contribute to strengthen awareness about environment.

"Now I also use the app quite often to ask about things. Not necessarily difficult things. It can be as simple as plastic boxes for example. People throw a lot of things and I love plants and herbs a lot. Then plastic boxes are a nice thing to have plants in." [i2]

"Some want curtains, some want lamps, some want glasses. People ask for a lot of small things that other people might not think of, that people throw away… Nabohjelp is very good for the environment and for saving small and big things." [i11]

6.5. Enablers and barriers

The well-functioning of sharing economy depends on a critical mass of users. A tight population density and living in small flats may be an enabler of sharing in neighbourhoods.

"In Grünerløkka, many people live in small flats. Many have no access to tools. Many have no curtain stairs. So, they share that. And it's a short distance away. And so many people live here. There are few areas in Norway where there are so many people per square meter." [i9]

In the centre of Oslo, the population is rather young with 60% between 20 and 40 [36], thus the population targeted by OBOS. Also as depicted by our informant, most are living in small or medium size flats, 50% fewer than 2 rooms [36].

The most controversial feature of Nabohjelp is support for payment. Payment is optional. Being able to offer or request payment, opens for the possibility to ask for or offer favours or things that otherwise maybe would be considered "too much" to ask for free. However, monetary motives represent a source of ambivalence. We observe that informants that were the most concerned by the environmental outcomes of sharing, strongly reacted to support for payment. Conflicting with the name of the application "Help a neighbour", payment introduces confusion about an expected purpose of Nabohjelp and is perceived contrary to the concept:

"The question is really what the purpose of the app is. Whether it's for buying and selling, or a barter market, within the local neighbourhood. Then it works fine. But if the intention is to strengthen a neighbourhood, then I think there are several things that should change." [i8]

"I thought it was very strange. If you use such a sharing service then I would, at least my immediate expectation was that we borrow from each other for free. Similarly, if I had something to lend that people need for some reason, then I had… No, I can't quite understand what it should be that makes me feel it natural to get paid for. I feel a bit that it is part of the concept, that you somehow do not pay. Unless stuff like car sharing, for example, where it is very natural that you… It is a great capital cost to invest in a car then I understand that you want something." [i6]

While the vision of Nabohjelp gets blurred, some find it difficult to understand as there exist other Norwegian online marketplaces, e.g., FINN:

"I don't use the app to buy or sell stuff. I think one really shouldn't. I feel like that the app should be used to lend, to give away and share things. Not for selling or buying. We have FINN for that. The app shouldn't have that feature." [i5]

Beyond confusion or disappointment, one informant also finds payment demotivating:

"In the cases I saw something I could help with, I got a little offended that they wanted to pay me. [Laughing]. If I can say… it removes motivation. I think that in a good neighbourhood, then … If the app was true to itself, then it should be voluntary and not paid." [i8]

Another informant compares Nabohjelp with a Facebook group, Favrs, for exchanging services, set up in her neighbourhood. She lacks the valuation of a strong local community and the focus on social exchanges that Favrs provides:

"It's Favrs, yes. You should give a favour too. You get a service, and you pass it on to someone else. It's kind of like… yes… If you have a birthday then you can go somewhere and then you get a beer from someone else." [i9]

Some informants, in particular those showing a social motivation, are more open to the payment option. As explained by one informant, payment may be relevant for things considered too demanding to ask for free, or as an incentive for younger people to help:

"For example, I understand payment if people lend tools. Because there is some wear and tear. And it has cost a lot to get these tools and they may need replacement parts eventually. I think it's okay to take some money to lend something like that. … I haven't done it myself, but I understand some people want it. And that some, such as students or teens at school, want to make some money with small jobs. I can understand that." [i12]

At the same time, this same informant considers that helping for free is important and would not accept payment herself:

"I do it for free (…) There were some people who offered to pay me, but I said it's fine. It was not something I wanted to get paid for. After all, I've received a lot of help during my life, not primarily through Nabohjelp, but sometimes you're in a situation where you are grateful to get help and that people don't think about money first and foremost. I think it's very important to maintain this in the world and in society." [i12]

In favour for payment, people may feel uncomfortable to talk about money. The option in the app makes it easier to ask and removes any ambiguity:

"It is good that one can choose. One can put a dollar sign and you know they want to be paid a little for it. … It is very nice that you do not need to tell it orally, that you can consider it in advance." [i11]

Additionally, not being mandatory, everybody is able to ask for help independently of economy:

"But there are people who want to pay me. I'd rather wish not, but it's just nice that they want to do it. It's not that I want to get paid, it's just a plus though. I use the app to help those who have not that much money, who may not wish to pay, or don't have the opportunity to." [i10]

However, rather than payment, several informants suggest offering a reward on a voluntarily basis. Several tell they have given or received some presents, for example:

"I have seen some people offer a reward, but I think it should be voluntary. I didn't offer payment for taking care of my pet. I offered a reward like a bottle of wine or something. It was just my choice to offer." [i1]

As trust is concerned, Nabohjelp does not provide the mechanisms often supported in sharing economy platforms, such as user ratings and reviews. The single supported mechanism, i.e., checking identity disabling fake profiles, was not mentioned by any of the informants when discussing trust. It might be difficult for users to perceive the rationale for that mechanism. None of the informants, but one, worried about trust. They may be restrictive as about what to lend, but, in general, they trust other people:

"Something I am very concerned about, and something that I think is one of the very, very finest we have in Norway, is the trust we have between each other." [i6]

The neighbourhood also seems to be an arena that contributes to strengthen trust. One informant, when asked she was confident to deal with strangers, answered:

"Yes, I am because it is a neighbour. It is in a way moral. You feel that if a neighbour needs help, then you help your neighbour. It comes from our childhood. I mean Norwegian morality and ethics. It is part of our Norwegian culture. To help a neighbour is something you almost must do." [i11]

However, trust may be easily broken. One informant experienced a dispute with a helper:

"I got an electrician who took a lamp to repair it. He got angry afterwards because I hadn't paid for him to fix it. And the lamp never came back." [i9]

As member of the closed Facebook group Favrs, she depicts trust mechanisms, such as profile, membership approval and belonging to the neighbourhood, when explaining why she prefers Favrs:

"You have to get approved … You have to live here or work here. … But it's a little more unclear in Nabohjelp… It's not the community you have in Favrs … Because in Favrs, it's a neighbourhood, because you have a Facebook profile, because you can report, and anyone gets to know someone is not reliable. They will be excluded… Yes, I am completely confident in Favrs. I am not confident in Nabohjelp." [i9]

Also during her dispute with another user, she did not notice support for reporting in Nabohjelp, indicating that trust features in Nabohjelp may be difficult to grasp:

"What is needed is to be able to report when someone does something wrong. Like that electrician. Then I had no place to report. Or to get him out of there. But I have warned other users." [i9]

Other factors that may discourage people from using the app relate to norms and codes of behaviour. Lack of politeness was often mentioned. It's considered rude if people don't answer to an offer for help, and conversely a reply is appreciated:

"I've had the app for a long time. I have experienced many times that, when I reply, not everyone is bothered to answer. Even so I respond quite quickly." [i11]

"I offered help, but then the other person said that they had already received help. I think it was nice to get an answer because I think it also happens that people do not answer at all. If someone offers help then it is reasonable to answer even if the answer is "No thanks, I have already received help." [i12]

Also, for some, selling alcoholic drinks is an undesirable behaviour (sale of alcohol is regulated in Norway):

"I'm very annoyed by those who ask for alcohol." [i8]

For many informants, Nabohjelp is not an app they must have, but that is rather nice to app. Too much irrelevant content is experienced as annoying. In order to avoid a loss of users, the tailoring of content and notification according to users' needs seem appropriate:

"Until now, I'm happy to have installed the app on my mobile and to get push-notifications. Probably if push notifications get too annoying, then I will delete the app." [i8]

"I've been thinking about it lately. There are quite a lot of requests every day. In my neighbourhood and not all is relevant. For example, lately, there were a lot of people telling they had lost things. Also, it was not quite close to me. So, I've been thinking about it lately. Not enough though that I've screwed the off." [i6]

6.6. Users' wishes: toward social and sustainable sharing

In line with OBOS's vision, informants depicted potential enhancements of the app toward more social and sustainable behaviours:

"If there was a category called, let's say, social. I mean like I like to go to the cafe, but I am much alone, if someone wants to join me once a week or occasionally, we could add name and phone number. Also, we could ask if anyone wishes to go to the cafe on Saturday or to go to the cinema or just to come home or to just talk a little, such things." [i11]

"Sharing news of what's going on in your area, sharing knowledge." [i4]

"I wish OBOS had added a feature in Nabohjelp, where they told that one can borrow tools in the library. When people ask for tools, I often tell them to go to the library that is close by. And the same thing, when someone asked to borrow ski shoes or skis, I told them that they can borrow such at BUA. Instead of having people to wait for an answer, I wish that Nabohjelp could help as soon they type a word." [i6]

7. Discussion

7.1. Main findings: overall subscription with some extension

Drawing upon script analysis, this paper revolved around the vision of OBOS, the platform owner and developer, in designing and developing Nabohjelp, and how this vision was transformed and translated in different appropriations of the app by the users. In designing and developing Nabohjelp, a primary concern for OBOS is described as to strengthen social relations in neighbourhoods. Additionally, OBOS seized the promise of a sustainable sharing economy, thus joining the popular "big tent of sharing economy" [5]. As scholars of script analysis state, Nabohjelp is built on particular hypotheses about its users and how these users would utilize the platform [11]. In this regard, we can say that Nabohjelp users have been inscribed as individuals who wish a lower threshold to reach out their neighbours and are conscious about sustainable behaviour.

In our analysis of informants' motivations, usage practices and experiences, we found that Nabohjelp is mostly adopted by individuals that match the envisioned users of OBOS. Our informants were motivated to use the platform based on social, environmental and, in a minor extent, economic motivations. Here, it is important to underline that motivations and practices vary among users, each user being mostly attracted by one factor. As social effects are concerned, our findings indicate that, despite several cases of strengthened social relationships between peers, there was still no effect on the neighbourhood as a whole.

The overall sub-scription of users to the script suggests that the user-centered development and design approach applied by OBOS and their scaling-up strategy have been successful. Through their housing cooperative, OBOS have access to a large and varied community of residents and were able to build an initial understanding of needs in residences. Residents were involved throughout the design and development process. They participated to interviews, co-design workshops and tests. Further, OBOS set up small pilots in their residences before involving more citizen and scaling up to larger neighbourhoods.

In a few cases, informants were using the app in a slightly different ways than foreseen by OBOS. The informants did not reject or react to Nabohjelp's original script but rather employed what Gjøen and Hård refer to as "user script" [37], which extended the original script. In these creative usages of Nabohjelp, informants generated new patterns of use. In two cases, the informants make use Nabohjelp for professional purposes, one in order to establish connections relevant for entering the professional market, another in order to sell handywork services. Another interesting case extends the script of socialisation, with the informant playing the role of facilitator. The informant was still involved in helping herself and getting help, but she also connected people together. She brought neighbours together with people in her private network, and, having a good overview of neighbours' needs, also neighbours together. In that way, she brings smartness to the app. Here, it is important to highlight that these usage practices, despite being different from the original script, geared towards a goal that largely suits the vision of OBOS.

However, the wide vision of OBOS has limitations. Addressing different goals, OBOS has adopted an inclusive approach when covering the heterogeneous needs of users. This results in a comprehensive app that combines sharing economy, on-demand economy and second-hand economy. The lack of focus sometimes confuses the users. In particular, the concept of second-hand economy and the optional support for payment are perceived as distinctive by some from the expectation for help that is signalized by the name of the app. These features were however implemented based on the feedback of some users, and, to reduce the risk of users moving to other platforms. As trust is concerned, Nabohjelp does not support the reputation mechanisms widely offered by sharing economy platforms, such as user ratings and reviews, and OBOS play a negligible moderation role in the platform. Nabohjelp requires user identity verification preventing the creation of fake profiles, but informants paid little attention to that main trust feature whose rationale might be difficult to perceive. In general, informants did not worry about trust. While Nabohjelp provides little support for trust per se, we argue that trust in Nabohjelp is enforced by the payment feature and the inscription of users as neighbours. We further explore payment and neighborship in the following.

7.2. Payment: an ambiguous feature

As mentioned earlier, features that allow payment appeared to be the most controversial aspect of Nabohjelp, generating confusion about the purpose of the platform. Payment feature can be regarded as the platform's commercial heel, e.g., non-idealistic, considering that the purpose of a platform can be placed along a continuum between commercial and idealistic [17]. While some of our informants accepted the support for payment, others expressed rejection.

Those who find payment feature problematic stated that monetary motivations conflict with the notion of help and the concept of Nabohjelp. Some informants also explained that payment makes it harder to distinguish Nabohjelp from other digital marketplaces in the second-hand economy.

Payment feature, however, is also accepted by some informants. They argue that payment feature clarifies expectations during a service exchange and removes any misunderstanding regarding compensation. Indeed, one of our informants experienced a dispute associated with payment. In this sense, payment feature may promote trust by reducing risk, especially for costly goods and demanding services. Things may get broken and offered services become tremendous. In these cases, the support of payment may be appropriate, illustrating a conditional acceptance of the script.

According to Böcker and Meelen [3], motivations when sharing expensive assets tend to be mostly economic. Goods and services differ in terms of their economic value, the social interaction involved in the process, and the environmental impact of sharing them, and these characteristics affect motivations for sharing them [3]. Habibi, Kim and Laroche also discuss how platforms aligned with traditional commercial market models (e.g., Uber) are hallmarked by weak relationships between peers, while "pure sharing" or exchange platforms (e.g., Couchsurfing) involve forming new relationships [38]. The social relations

between users seem to be less emphasized when there are monetary transactions involved in sharing, while they are more important in a non-commercial sharing activity, and often at the very core of the activity.

Furthermore, our findings indicate that informants with environmental motivations are more reluctant to payment than informants with social motivations. Ter Huurne and colleagues argue that idealistically oriented platforms deserve more attention because they aim for social and sustainable goals, and that more work is needed on investigating how these platforms differ from commercial ones because "It is conceivable that, on these types of platforms, trust is built on different trust mechanisms, such as a sense of community, intrinsic motivation of participants, and social norms and values" [17].

7.3. Neighborship as a trust mechanism

"Sharing goods and services via the internet is based on the fundamental mechanism of *de facto* strangers starting to interact with each other in the digital sphere" [15]. This stranger-danger bias must be overcome in order to leverage the full potential of digital technologies, enforcing a central role of trust in sharing economy. Surprisingly, as explained earlier, Nabohjelp does not support any of the prevalent trust mechanisms in sharing platforms, and informants were not worried. The fact that the users in Nabohjelp are neighbours may "curb" the feeling of being and interacting with strangers, providing users a sense of security. We find that, generally, informants seemed to trust each other, leaving both pets and apartment keys to, not *strangers*, but *neighbours*; here lies an important distinction. Informants emphasized that *it is their neighbours that* they are interacting with in the app, thus "damming up" for the potential lack of other, more traditional trust mechanisms, such as more extensive reputational systems. Thus, the platform owner and developers seem to have successfully in-scripted the role of users as *neighbours*, functioning as a sophisticated trust mechanism itself. Furthermore, proximity in a neighbourhood may also function as a trust mechanism, where the status of being *neighbours*, living in the same neighbourhood, carries with it the imminent risk of "bumping into each other", possibly creating a threshold both to perform – and perceived risk of – fraudulency.

The platform carries connotations of being idealistic, referring to the distinctively Norwegian concept of *dugnad*, a form of voluntary community work. Norway, together with the other Nordic countries, are highly recognized as inimitable regarding both interpersonal and institutional trust levels and high social capital, consequently scoring high on all social capital parameters in international comparison (see for example [39]). Thus, the Norwegian context may constitute distinct conditions for local sharing economy. Drawing upon this cultural context in its script, OBOS inscribes users as being inclined towards helping others voluntarily. However, as reported by one of our informants, fraud may also happen in a neighbourhood when using Nabohjelp. A strengthened mediation support and increased visibility of the reporting feature are simple mechanisms that may contribute to lowering the risk.

7.4. Focusing on social behaviours

We argue that it is possible to enhance Nabohjelp through a focused vision and extended support in the platform aligned to this vision. In particular, consistent with the name of Nabohjelp, social effects can be strengthened.

For example, as pointed out by one informant, Nabohjelp could promote social behaviours through the introduction of a new category "social meeting places". Facilitating this kind of activities may encourage social behaviours. Nabohjelp also provides a summary of recent remarkable events, e.g., the most post with most answers or the newly solved requests. This summary could be extended with illustrative cases of social requests. A step beyond social relations, we also observed

a case of social inclusion in our study, where Nabohjelp enabled a chronic-ill person isolated at home to contribute to her neighbourhood. Indeed, the ability to participate was experienced rewarding by the informant.

In their marketing, OBOS has mainly targeted age group between 20 and 40, that they consider environmentally conscious, as potential users. However, as Böcker and Meelen suggest, social motivations for joining the local sharing economy initiatives may be more dominant among older people as compared to younger ones [3]. A previous study conducted in Germany identified different attitudes between young people (students) and older people: while young people felt comfortable sharing online and rating activities, elderly were reticent to ask for help in public and reluctant to be subject to rating [35]. Differently, our empirical material indicates that some older people are eager to participate in Nabohjelp. However, Nabohjelp does not support any reputation mechanisms, that might lower the threshold for older people to participate. In this sense, we suggest that the platform should embrace a more inclusive approach in their script, targeting a broader age group as users. This might help Nabohjelp achieve their goal of facilitating social relations in neighbourhoods more efficiently.

7.5. Role of the platform governance

As discussed earlier, the user-centered design approach applied by OBOS seems to favour subscription of users to OBOS script. In a way, the users are involved in the definition of the script. At the same time, OBOS exercises little control over the users of Nabohjelp. This form of reciprocal interaction between users and platform could be further investigated applying the framework that Martin, Upham and Klapper developed for their study of democratic models of platform governance [20]. This study investigates the claim that democratic platform governance models promote the simultaneous enactment of social, environmental and instrumental values. Martin, Upham and Klapper also advocates further research on this matter. In this regard, further study of Nabohjelp with focus on governance appears to be a good case.

Our case study also found that the comprehensiveness and lack of focus in the platform, and in that, making reference to multiple value orientations, resulted in confusion amongst users. Future studies should consider examining these issues complementary to governance in greater detail, with Nabohjelp as a possible case, providing more nuanced insights on the matter. Given the great diversity of sharing economy platforms, the propagation of social, environmental and instrumental values may differ, possibly even to a great extent. Martin and colleagues close on this argument by drawing into question to what extent, and if so, which platforms and sectors of sharing economy hold the greatest potential in contributing to more sustainable consumption, and further, societies.

7.6. Limitations

The current research is based on a limited sample of Nabohjelp users. The views of Nabohjelp users represented in here reflect only those who were willing to take part in interviews. Views of other users may differ. However, the informants live in two different cities, have different profiles and background, and had more or less experience with using Nabohjelp. This ensures that views of different users are taken into account.

8. Conclusion

In this paper we have discussed appropriations of the Norwegian sharing platform Nabohjelp. We have utilized script theory to analyse to what extent users' employment of the platform matches the vision of OBOS, that is, the script of Nabohjelp. Furthermore, we have focused on users' experiences and what motivations the users have in adopting this technology. As stated in section 3, script theory is fruitful for studying

how a particular technology, designed for a particular end, is appropriated by users. We found the script theory useful as, beyond understanding user acceptance, it enforces investigating the technology from the viewpoints of platform provider and users, and it facilitates comparing these viewpoints.

The case study we conducted has shown that the platform owner inscribed the users of Nabohjelp as individuals who wish a lower threshold to reach out their neighbours and are conscious about sustainable behaviour. As our analysis suggests, this inscription, to a great extent, matches with the motivations of our informants in using Nabohjelp. Furthermore, the inscription of users as *neighbours* can be regarded as successful given that informants expressed a sense of trust when using Nabohjelp, although the individuals they get connected with through the platform were in fact strangers.

However, our study identified limitations to the appropriation of Nabohjelp. In particular, the payment feature appears to be the most confusing aspect of the platform. Payment is associated with commercial purposes and weakens the platform's idealistic image. While some informants accepted or tolerated the support for payment, others expressed strong rejection. A second limitation of the platform is that its marketing targets people aged between 20 and 40. Our empirical data show that there are older people who are eager to participate in Nabohjelp. We suggest that the platform should embrace a more inclusive approach and work towards lowering the threshold for participation for older people.

Our study also found that traditional trust mechanisms were not present in Nabohjelp, in that none of prevalent trust features were inscripted in the platform. Nevertheless, this does not seem to affect the levels of trust users have towards other users, nor the platform in general. We discussed how the in-scription of reference to local community and neighborship might dam up for the deficiency of traditional trust mechanisms in the script of the platform. This mobilization of a sense of community by referring to the notion of neighborship, may provide implications for policy makers working to shift peoples' attitudes and behaviours towards more sustainable practices. Seemingly, appealing to these normative orientations and valuations of community, policy makers could reach out and influence such changes more efficiently. Further, as understanding users' motivations and experiences is critical for technology adoption, the findings are also relevant for designers and developer of digital sharing platforms.

Author statement

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Appendix 1. Résumé of interviews

Id	Age group	Motivations	Experiences	Payment	Trust	Extension of the script	Suggestion
i1	30–39	Practical, partly social (new in neighbourhood).	Focus on services, not on things.	Tolerate. Prefer a gift.			
i2	20–29	Practical, social (new in neighbourhood), environmental.	Low threshold for asking. Satisfaction of helping.	Not important. Prefer a gift.			
i3	20–29	Social. Curiosity.	Low threshold for asking. Satisfaction of helping.	Fine with payment for large things.	Profile picture increases trust.		
i4	20–29	Practical, sense of community.	Helper. Value of flexibility.				Information about local events.
i5	30–39	Environmental, partly social.	Requester. Met people with common interests.	Against payment.	Trust other people. Profile picture increases trust.		Show organisations nearby that lend things
i6	20–29	Practical, environmental, moral (important to contribute).	Helper. Easy of use.	Expects free service	High trust in Norway. Reticent to lend expensive assets.		
i7	40–49	Unreliable answer: to "help" other people vs. economic motives.		Expects payment for large tasks.		Mediating professional craft.	
i8	20–29	Practical, environmental, economic.		Against payment. Demotivating.	Trust other people.		
i9	over 50	Social, moral, economic.	Helper. Satisfaction of helping.	Against payment, except for large tasks.	Uncertain. Experienced fraud.		Focus on service, not thing. Support to report fraud.
i10	20–29	Social.	Helper. Has made friends. Value of flexibility. Low threshold for asking.	Tolerate. Not important.	Trust other people.	Builds network for getting a job.	
i11	over 50	Social, moral, environmental. Strong sense of community.	Active helper and requester. Lower threshold to ask (no obligation and flexibility) Has kept contact with other users.	Nice to have the choice. Means to avoid conflict.	Belonging to neighbourhood. Profile picture increases trust.	Mediator between app users and acquaintances.	Add category "social activities" (go to cinema, coffee shop, etc.) Expects people to answer (politeness).

(*continued*)

Id	Age group	Motivations	Experiences	Payment	Trust	Extension of the script	Suggestion
i12	*30–39*	*Social. Sense of community.*	*Helper, if not too demanding. Has kept contact with other users.*	*Nice to have the choice. Good for young people.*	*Profile picture increases trust. Reticent to lend expensive assets.*		*Expects more politeness.*

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