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Nathalie Ortar, Aurore Flipo

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The Hidden Energies of Work Digitisation: A View from France Through the Use of Coworking Spaces

Nathalie Ortar and Aurore Flipo

Introduction¹

There is no shortage of terms—such as the collaborative economy, the sharing economy or cognitive capitalism—to describe the new work practices and organisational innovations brought about by the spread of Web 2.0. Among them, coworking spaces, which first appeared in 2005 in San Francisco and were popularised in Europe in the 2010s, have gradually become a symbol of new ways of living and working. According to some scholars, coworking has four cardinal values (Gandini 2015): collaboration, openness, community and sustainability, while digital tools could be supporting the green transition through the processes of bricolage, remediation and participation (Deuze 2006).

¹ Chapter translated and edited by Cadenza Academic Translations.

N. Ortar (✉) · A. Flipo
ENTPE, University of Lyon, Lyon, France
e-mail: nathalie.ortar@entpe.fr

However, while some experts consider the three ‘D’s—Decarbonisation, Decentralisation and Digitalisation—as the main drivers for change in the years to come (Monnoyer-Smith 2017; Silvestre et al. 2018), new demands keep surpassing energy savings (Röpke 2012). Although the cloud is an extremely expensive and energy-intensive enterprise, sensing media, platforms and algorithms have intensified data capturing and processing over the past decade (Velkova 2021), not only because of the large capital outlays involved in constructing data centres but also because of the costs required to constantly power these places and their multiple failover sites (Taylor 2018). As Julia Velkova argues, this process helps ‘to install a new configuration of economic and social relations that can serve simultaneously computing machines, the platform economy and old energy monopolies, while not necessarily breaking apart from the carbon regime’ (Velkova 2021, p. 665).

In this chapter, we examine the effects of the digitisation of work tools on lifestyles, patterns of energy consumption, practices and representations of energy. We describe how ecological concerns factor into the residential and professional choices underpinning the practice of coworking, the uses of coworking spaces, as well as the transportation practices. This portrait of practices provides an opportunity to explore the representations and narratives surrounding the energy transition in those places; narratives presented by urban planners and governmental agencies as examples of how digitisation can promote sustainability.

Coworking is linked to the ‘third places’ movement (Oldenburg 1989) which designates a broad range of collaborative work places such as coworking places, but also fablabs, makerspaces and repair cafés. In France, the development of a broad national grant programme for ‘third places’ has spread this label among a diversity of actors, and created a common identity with the creation of a national agency called ‘France Tiers Lieux’. However, their actual definition remains very lax and focuses more on intentions than actual content: Trier Lieux or third places are defined as ‘places that reunite diverse activities, participate in the local economic development and animate a community’² or ‘places

² <https://francetierslieux.fr>, accessed on 27 April 2022.

for doing together (...) that have spread thanks to the digital development on the territory'.³ Movilab, one of the first networks of third places states in their 'Manifeste des Tiers-Lieux' (Manifesto of Third Places):

The growing importance of digital technology, as well as economic and ecological issues, has a direct impact on organisations, whether they are private, public, associative, national or international. Every sector is facing the urgent challenge of finding solutions to reconstitute a viable, decent and sustainable value system. [...] Third Places facilitate the experimentation that is made necessary by these changes on the human, societal and economic levels. Thanks to their independence, they create a foundation of common sense in this changing society.

The Ministry of Territorial Cohesion also argues that third places are 'tools for local sustainable development', based on their values, potential impact on mobility thanks to telework and their capacity to foster local initiatives.⁴ Third places more generally thus support sustainable urban and rural development by constituting 'spaces of possibility' and of social transformation (Kagan et al. 2018). Indeed, some argue—including the promoters of the French national grant programme—that third places would then be the bearers of a 'collective dynamic' embodying local transitions (Besson 2018). Furthermore, the close association, within the Third Place movement, between the pro-sustainability and pro-digitisation can be explained by their social proximity (Berrebi-Hoffman et al. 2018). The creation of coworking spaces is concomitant of the development of mobile communication technologies that have fostered the growth of professional activities carried out remotely, allowing for the combination of physical and virtual mobility in a 'spatio-temporal continuum' (Rallet et al. 2009).

Royston et al. (2018) have called the invisible energy policies non-energy policies inducing energy consumption. Third places belong to that category as they rely on growing digitisation and cloud storage,

³ Ministry for Territorial Cohesion (Ministère pour la Cohésion des Territoires). Translator's note: Unless otherwise stated, all translations of cited foreign language material in this article are our own.

⁴ Levy Waitz, P., 2018, *Faire ensemble pour mieux vivre ensemble. Rapport de la mission coworking*, CGET, p. 88.

because most computing needs are now implemented as web services and because the cloud storage has become the default storage option of the majority of digital devices (Ortar et al. 2022). Furthermore, if working remotely reduces the frequency of daily commutes, the commute's overall length and other daily travel behaviour might increase, because coworking options affect residential choices (Kitou and Horvath 2003; Mokhtarian et al. 2004; Rietveld 2011; Kim et al. 2015; Cerqueira et al. 2020). Indeed, the literature on coworking has emphasised the innovative dimension of these new workspaces (Capdevila 2013; Cohendet et al. 2004; Cléach et al. 2015) and the importance of the professional network they provide (Blein 2016; Scaillerez and Tremblay 2016; Spinuzzi 2012; among others). However, the search for a work environment perceived as more productive, less distracting and allowing for a better separation between the private and the professional is one of the main reasons for workers to use coworking spaces (Brown 2017; Spinuzzi 2012; Flipo and Ortar 2020). This contradicts some of the assumptions of the manifesto—or the governmental agencies—regarding the disruptive character of the users of these spaces as well as their attention to ecology, or their personal involvement in collective movements, and territorial and social innovation.

In this chapter, we examine the silences surrounding certain uses of energy (Ortar 2014) or what we call the 'hidden energy uses'. The communities and people who use these collaborative workspaces offer justifications and this allows us to highlight some of the unspoken effects of the ongoing energy transition which, unlike the previous one, does not imply a modification of the nature of energy, but of its modes of production, thanks to the use of so-called renewable resources, and of a change in social practices surrounding the consumption of energy (Loloum et al. 2021).

This chapter is based on a survey conducted between 2017 and 2020 in the Auvergne-Rhône-Alpes region as part of the ANR Coworkworlds project (Lejoux et al. 2019). This region is distinguished by its high proportion of professional and managerial staff with dynamic work environments. An inventory of all coworking spaces open at the time of the survey indicates that although 47% of the coworking spaces are located in the centres of big cities, there are also many in the suburbs,

medium-sized towns and rural areas, attesting to the geographical spread of coworking (Leducq et al. 2019).

In order to characterise the coworker population, a quantitative survey was administered to 377 individuals. A lot of them work in the digital sector, thus developing platforms, software or designing digitisation tools. Semi-structured interviews have been conducted with 40 coworkers who agreed to be contacted after the questionnaire. For this survey, the researchers sought out a diversity of professional and family situations, as well as a diversity of spaces frequented. In addition, a socio-anthropological fieldwork has been conducted in different third places in rural and urban areas. During this fieldwork, we also verified that most of the coworkers have internet intensive ways of working as they rely on it to communicate, store their data and work collaboratively.

Coworking as Part of a Life Project: A Life Choice, an Ecological Choice

For the urban as well as rural coworkers, the common point of all those life stories is the desire to make one's professional activity meet their values and aspirations in life. However, ecology is not the only value displayed: freedom is also central to coworkers' narratives, a freedom of moving around rendered possible by digitisation which is not put into question even when it might contradict the value put into ecology.

Focused on the potential disruptive effects of the sharing and the collaborative activities supposedly being led in those places, the Third place manifesto—like most of the institutional descriptions of collaborative workplaces—does not question the motives that lead people to frequent those places. However, the interviews we conducted show that the collaborative dimension is often limited to ordinary sociability while motives related to life choices are omnipresent. Two key moments transpire as origins of the decision to become a coworker: that of a biographical turning point, and that of a sense of dissatisfaction with working from home. In both cases, it is a matter of agency and of constructing one's own life, of mastering one's own experience (Wiewiorka 2008), and therefore of adjusting to constraints, adapting one's

plans to find a balance between the sometimes contradictory desires linked to career goals and to the living environment. Coworking is one of the ways in which this adjustment can be made.

The biographical turning point is 'a major and abrupt change in the direction of one's trajectory, whose timing and outcome are unforeseeable, both for the actor and for the sociologist' (Bidart 2006, p. 31). The decision to start using coworking spaces constitutes a turning point because it results in a radical change in the place of living, whether the employee continues to work—now remotely—for the same employer, or has a radical transformation in the nature of their activity. The nature of the event—understood as a clear dividing line (Bensa and Fassin 2002)—giving rise to the turning point is remarkably similar in rural and urban areas, and the only factor affecting it is the stage of life.

The origins of these turning points for cowork space users are numerous, whether it is the end of a work contract or a lease, an experience of professional dissatisfaction, a desire to be elsewhere or to be closer to family and friends, or even educational choices. More rarely, the choice of a particular lifestyle is made as soon as an individual has completed their studies, as was the case for Mélanie, a designer who travels for six months of the year while working since she finished her schooling. The characteristic feature of these choices is that they reflect a search for meaning in one's daily life, which involves not only the meaning given to one's professional activity but also the relationships established with one's family and environment. Coworking thus contributes to a life project in which professional activity is embedded in and indicative of a new form of 'lifestyle migration' (Ortar 2015), in which ecological considerations might also be present.

The figure most frequently encountered is that of the employee of an international company, tired of a life in Paris or abroad, who decides to live in a smaller town or a village in a chosen geographical setting. The decision to make a change is here associated with the search for a new living environment and is often accompanied by a move to self-employed status or the creation of a new activity. However, what is meant by living environment and where the attention to ecology is put differs significantly from one individual to another, and between urban and rural areas.

For example, after two years in London, Etienne, who was single at the time, wanted to return to France. This plan was accompanied by a transformation of his professional activity: whereas he had previously been working in the online retail sector, he and a friend had just launched a platform for selling organic products when we met. Although conscious of the energetic costs of such a retail, he justifies it by the nature of the products sold. While living out of the web activity, his other choices are consistent with a low energy consumption lifestyle: he chose to live in Lyon because of its TGV high-speed rail service that allows to avoid taking planes and because of the city's amenities, including the possibility of getting around by bike on a daily basis. This search for a city of short distances, where it is possible to get around without a car—and in fact very few of the urban coworkers surveyed own a car—while maintaining fast connections to the rest of France thanks to high-speed rail service, was constantly mentioned by respondents, and it contributed to the choice of Lyon rather than other large French cities. The vast majority of those coworkers are therefore aware of the energy costs associated with travel although they keep travelling often for work reasons. In Lyon, they put this awareness into practice in their daily lives. The choice of lifestyle thus corresponds to compliance with ecological values and is reflected in the fact that the chosen place of residence may allow daily travel using low- or non-polluting modes of transport. For longer journeys, whether they are for business or for leisure, low-polluting modes of transport are also sought after.

The motivations of respondents in rural areas are both similar and different, if only because they are at a different stage of life. These people, who are older on average, settle in rural areas with their families. Stéphane's geographical and professional background, for example, is very similar to that of the urban dwellers. He left his job and moved to the countryside to 'put down roots' after years of international mobility. The top priorities in his search for a place to live were the local landscape and climate. For all the families we met, it was essential for the living environment to be pleasant and for the chosen home—a house in the vast majority of cases—to be within the available budget, which most of the time in this touristic region involves living in quite remote areas. The use of a car was then presented as a necessary part of rural life.

Travelling shorter distances by car is presented as a lesser evil than making long-distance journeys. Maëlle, in her thirties, is a photographer. She has been living in the Drôme for a year after having spent several years travelling around the world for work. Although she uses her car almost every day, arguing that it is difficult to do otherwise in a rural environment, when she mentions her desire to settle down, she shows an ecological awareness and the consciousness of the implications of her life choices:

It's fine, I've travelled around enough. And as for my lifetime carbon footprint, I think I've already used up my fair share. [...] One of the reasons why I wanted to settle down was that my nomadic international lifestyle, citizen of the world, what have you, being on a plane every month, it didn't suit me at all. It didn't fit at all with my political and ecological ethics.

Many users of coworking spaces have experimented other forms of travel, a 'wanderlust' which corresponds to a form of cosmopolitanism, typical of urban classes with high cultural capital (Andreotti et al. [2013](#)). Take Quentin, who spent four years travelling the world by bicycle:

I left Crest and arrived in Argentina by bike... I took a boat to Dakar, then to Brazil ... then travelled by bike to Argentina. An itinerant journey. [...] It was at once a desire to travel, a desire not to take a plane, and a desire to travel slowly, to experience the distance covered, to meet people ... all these positive aspects too. It wasn't just a form of penance.

Like Maëlle, he shows an awareness of ecological concerns and of the pollution linked to fossil fuel transportation as well as a desire to change his relation to speed and to the world, but not to the point of giving up travelling—especially abroad.

Finding the Right Distance: From Home Working to Coworking

Getting around is, however, only one aspect. Let us now return to the choice of working in a coworking space and the consumption induced by this choice. Whereas for the urban respondents, this choice was part of their decision to change their life, and some had even looked for the available coworking spaces while investigating for a city to move to, this was less the case for the rural respondents, in particular those who arrived before the appearance of coworking spaces in rural areas or who made this decision after having been confronted with the difficulties of working from home. Indeed, while leaving a company or working remotely is a positive choice for them, working from home appears to be an inevitable consequence often described as an inconvenience, regardless of family and professional situations. Working from home requires a discipline often perceived as burdensome, especially for the self-employed, who have to impose on themselves a work rhythm that is not conditioned by other employees. The issue of gender also illustrates the ambiguities of working from home as domestic and professional workloads are often difficult to combine in the space–time of the home (Felstead and Jewson 2000; Flipo and Ortar 2020; Hardill 2002; Ortar 2018; Tremblay and Genin 2008).

Using a coworking space re-establishes a spatial and temporal separation between the professional and private spheres. It gives access to a professional space which frees the domestic space of work consideration. Like disconnection practices and the use of tools such as separate phones, silent mode, etc., intended to manage the continuous flow of information and communication in a sustainable manner (Fernandez et al. 2014; Belton-Chevallier and De Coninck 2007), coworking spaces are a ‘socio-technical device’ that permit to mark out spatial boundaries for work (Belton-Chevallier and De Coninck 2007).

However short it may be, the journey to the coworking space creates a break between the private and the professional, but due to the lack of public transportation and cycling infrastructures (Flipo et al. 2021) induces a high level of car use even for short trips in rural areas. The data from our questionnaire shows indeed that the car remains the most

common way of transportation for rural coworkers (for 53% of them), and their work trips made by car are almost double compared to their urban counterparts (Flipo 2020).

Living in a highly car-using environment is another reason. Alice, a rural dweller and mother of a little girl, uses her car four times a day to travel to a coworking space only 1.5 km from her home. She plans to cycle there at an unspecified time in the future, but even then, only half the time:

It would be good to cycle in the afternoon at least. I could go home and come back by bike. It works better that way when you're working to a timetable, because when you have to be there at five to nine, it's a bit of a rush in the morning, so it's easier to drive in. The journey isn't so bad because I live 1.5 km away and it's flat, which is quite rare here. So I have no excuse.

The energy costs and polluting incidence of travelling around with a car appear quite spontaneously in the conversation and the interviewees are aware of the energy costs of the pollution generated by getting around by car, which Alice expresses here when she says that she has 'no excuse'. May it be in a justification or a defensive mode, those costs are thus known and acknowledged.

For most, the electric car is seen as an acceptable lesser evil, as Mickaël explains: 'I'm really happy to no longer have a combustion engine car, partly because of the incomparable comfort of having an electric car, and partly because it doesn't use fossil fuels'. However, he would be glad if he could do without it and not have to worry about 'the maintenance, parking, cleaning, the upkeep, all that. If I could just, for example, do everything by bike ... go to the station in Crest, put my bike on the train, I don't know... I think I could happily do without it' (also see Datava et al. in this book). Still, the electric car emerges as the element that helps reconcile lifestyle and professional choices with personal ethics, as Clément explains when he justifies his use of an electric car:

I work for a SCIC [société cooperative d'intérêt collectif, or public-interest cooperative] that develops renewable energy projects. So our carbon impact, our ecological footprint, etc., is quite a priority for us. So if we install renewable energy production capacity, but at the same time we run trucks and so on, there's going to be a calculation to be made. And if it works out to be as carbon negative as possible, then so much the better.

The commuting mode of travel chosen to get to a coworking space on a daily basis is particularly revealing not only of the issues surrounding homeworking and transportation but likewise of how the incidence of some of the lifestyle choices made are questioned or not and of the connections made on a daily basis between the values displayed by the coworking spaces and their implementation by the people who frequent these spaces. Indeed, few envision parting with a vehicle, as to change practices is a complex decision even when car use creates a feeling of a lack of coherence with one's values, as Yannick illustrates:

I looked at the scrappage grant schemes, things like that, trying to replace two cars with one: two old cars with a slightly newer one, because we have to pay to maintain the cars. That's the way it's going. My wife and I are in the middle of working it out. We're changing our modes of transport, we're adapting, we're relocating the place where we work. My wife goes to work by train, because we live in Saint-Hilaire and there's a station here. She works near the TGV station in Valence, so she gets by train there. The idea is to try to use sustainable modes of transport, because I think that in the future, whatever happens with the gilets jaunes [the 'yellow vests' protest movement], fuel prices will continue to rise. Modes of transport will change. The approach based on the dominance of the car will no longer work because we can't seriously say that moving 1,500 kg to transport 100 kg is smart. It's absurd whether the car is powered by electricity, hydrogen, petrol, gas, compressed air, thermonuclear, or whatever. We're transporting 1,500 kg, but we only need to move 100 kg, a human body. People often say: 'Ah, the electric car this, the electric car that...' It doesn't matter—it's still a car!

Silent Consumption: The Consumptions of Remote Working

While the consumption involved in transportation is clearly identified and is the subject of discussion and even of residential choices aimed at reducing it both in rural and urban areas, other forms of consumption are passed over in silence. Indeed, even though most of these people are attentive to the modes of production of the electricity they consume on a daily basis, even if they seek to reduce their food miles, look for economical modes of heating and have renovated or wish to renovate their home to make it more energy efficient, the energy consumption induced by the use of information technology and in particular data centres is silenced (see the Introduction in this book).

All the respondents use computers on a daily basis. Some have two computers, one in the coworking space and another at home, while others carry around their computer on a daily basis. All of them are used to sharing data or even working exclusively with data available on online workspaces. To meet this demand, in rural areas, because of the frequent lack of speed of the landline connection, some coworking spaces top up their ADSL with the 4G network, or use multiple ADSL connection aggregators, increasing thus the energy consumption of remote working. Despite this, the question of the consumption generated by these working methods is never mentioned by the coworkers, not even by those who use coworking spaces that claim to have ecological values and standards. Those coworking spaces' policies generally relate to the limitation of waste, the creation of compost, the insulation of buildings, the green economy, etc., but not to the overconsumption associated with their very activity.

For Cécile, founder of a Third Place in a small town, sustainability is a target for her place. However, she only refers to the building's lack of energy efficiency issues:

Our wish is to work towards practices that promote the respect of the environment, and of the human being. If possible, become an exemplary place one day. But we know very well that this is an old building, there is an oil-fired boiler ... it takes time. Of course, we would dream of a

place with wind turbines and solar panels. (...) [Sustainability] is in the background, it can be seen through the garden, with the permaculture (...) We haven't selected activities based on their link with sustainability, but there are quite a lot of people working here who are in the field of sustainable development in the broad sense actually.

When she mentions the professional activities being performed inside the building, she focuses on the purpose of the activities (sustainable development) rather than the means being used (digital technologies). This apparent paradox exemplifies the perception that the digitisation of the society is a lever for reaching sustainability as we mentioned at the beginning of this chapter (see also Monnoyer-Smith 2017). Moreover and similar to what Lautrup (in this book) describes as making things less abstract and more concrete, energy efficiency is measured through the lens of local consumption and does not include the deterritorialised effects of the digital economy such as data centres which are not present in those rural surroundings and are ignored by the urban dwellers as long as they are not directly exposed to the social and ecological problems as well as the energy disruption they create (Ortar et al. 2022). The ecological and energy implications related to digitisation of the use of these spaces are thus absent from the discussions, despite the fact that their alleged 'sustainability' dimension is at the centre of most of the public policy schemes developed by diverse public institutions in the last ten years. The silence is therefore not only that of the policies but of the very developers of those places and of their users, however well-informed they might be on other issues, such as transportation and building insulation. The silence here is both telling of a general lack of awareness on the subject as well as of the difficulty to raise attention to the effect of indirect consumption, the invisibility being linked here to the incapacity to measure and directly pay for the energy consumption generated by the digitisation of the work environment.

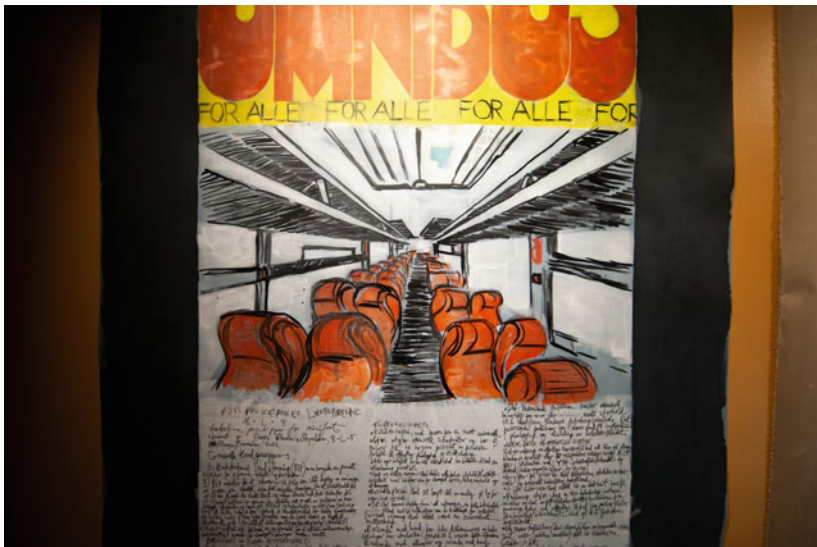
Conclusion

The exploration of narratives surrounding energy uses made by coworkers has shown the broad diversity of interpretations and arrangements linked with the energy transition and its implications for those working in highly digitised labour markets. It shows that though most of the coworkers display eco-friendly values, they are expressed rather by an awareness towards their personal carbon footprint than by local collective action, thus questioning the disruptive dimension of coworking spaces and their ability to implement ‘local transitions’, which the Third Place movement or public policy have claimed in recent years. Their rather individualistic perception of ecology shows that the call for individual responsibility that has been at the centre of public policymaking in the field of sustainability in the past 20 years (Dubuisson-Quellier 2016) has been internalised by those highly educated, highly skilled and predominantly urban segments of the population, but suffers from many contradictions that coworkers try to deal with—or simply ignore, the implication of the digitisation of work being one of them.

Indeed, engagement with the issue of transportation gives rise to the difficulty of matching values with actions, which may require a change in lifestyle choices. Conversely, what we find among the people who have made such choices is that coworking leads to a profound transformation in the organisation of daily life and of the residential location. Yet, the very effects of the so-called ‘digital revolution’ seem to be overlooked. The lack of awareness of the ecological costs of digitisation by those same persons that develop and use it, is first telling us something about the general lack of awareness in France surrounding the energy costs of its use, despite a growing consumption as the spread of digitisation allows among other things more remote lifestyle choices, a growing tendency before and even more so since the COVID-19 pandemic (Lejoux et al. 2022).

Moreover, faced with this disjuncture between, on the one hand, a daily attention to ecological issues and energy use, and, on the other hand, the silence surrounding the overconsumption linked to digital practices and the duplication of workspaces, we propose the hypothesis that there is a divergence within the forms of appropriation of the

norms of the transition towards sustainability. Although some people have turned decidedly ‘anti-digital’, those who are ‘pro-digital’ think that digital technologies can support the ecological transition, and this includes a line of thought that stems in part from the hacker community, which was at the origin of the concept of Third Places. More generally, this dimension overlaps with attitudes to technology, and the opposition between those who think that technology is the cause of environmental problems and those who think it can provide a solution to those problems. This divergence partly comes from the most classical opposition between ecological modernisation theories that support technological innovation, and degrowth theories that believe on the contrary that excessive modernisation is the cause of the ecological crisis and is unable to solve it (Rudolf 2013), and embodies the renewed relevance of this debate in the context of the current acceleration of digitisation. Exhibition Fig. 7 follows this chapter.



Exhibition Fig. 7 Solarpunk principles for a National Association of Bus Users manifesto (Source Rune Egenes and Norwegian Petroleum Museum [used with permission])

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