Nordic Journal of Library and Information Studies

Vol. 4, No. 1, 2023 ISSN (ONLINE) 2597-0593 DOI 10.7146/njlis.v4i1.138194 © CC BY-NC-ND 4.0

Henrik Jochumsen, Associate Professor, Department of Communication, University of Copenhagen, Denmark, https://doi.org/10.1001/jochum.ku.dk

Tom Erik Julsrud, Research Director, CICERO Center for International Climate Research, Norway tom.julsrud@cicero.oslo.no

Mia Høj Mathiasson, Assistant Professor, Department of Media, Design, Education and Cognition, University of Southern Denmark, mmath@sdu.dk

Espen Eigil Barratt-Due Solum, PhD candidate, Department of Social Sciences, UiT The Arctic University of Norway, espen.e.solum@uit.no

Monica Guillen-Royo, Senior Researcher, CICERO Center for International Climate Research, Norway. monica.guillen-royo@cicero.oslo.no

Anniken Førde, Professor, Department of Social Science, UiT the Arctic University of Norway, anniken.forde@uit.no

Sandra Elise Bakkevoll, Research Assistant, CICERO Center for International Climate Research, Norway, sandra.bakkevoll@cicero.oslo.no

Research note:

Upscale

Upscaling Sustainable Collaborative Consumption Using Public Libraries

Abstract

UPSCALE is an international collaboration of universities, research institutes, public libraries, and non-governmental organisations (NGOs) that explore the preconditions for and possible upscaling of collaborative consumption using public libraries. UPSCALE runs until autumn 2024, and results will be published continuously in journals dealing with library and information studies, climate research, and sustainability. In this research note, we introduce ongoing research from the UPSCALE research group by presenting several case studies that show how public libraries act as change agents in different ways regarding sustainable development. This might be by facilitating, promoting the lending, and sharing alternative collections in the library or by building collaborations, partnerships, and networks with local community actors, NGOs, and other local and national partners.

Keywords: public libraries, sustainable development, sustainable consumption, sharing economy, collaborative consumption, upscaling

Introduction

Everyone is talking about sustainability — a concept often seen in context with the massive environmental disruptions of our current day and age. However, sustainability is more than climate change. Sustainability is also about improving living conditions for present and future generations economically, socially, and culturally. As sustainability researcher Thiele (2016) stated, the consequences of our actions and inactions will cross borders for generations, spanning the globe, and cast long shadows into the future (Thiele, 2016). Based on a holistic understanding of sustainability, in 2015, the United Nations (UN) introduced 17 Sustainable Development Goals (SDGs). Since then, the library field, from The International Federation of Library Associations and Institutions (IFLA) to local public libraries worldwide, has been increasingly engaged in the sustainability agenda. The libraries' engagement in the sustainability agenda represents a turn in libraries' engagement with sustainability; from an emphasis on greening library buildings to a focus on the innovation of practices, services and projects that integrate all four dimensions of sustainability.

This article presents a selection of case studies and ongoing research from the UPSCALEⁱ research group. As an international collaboration of universities, research institutes, public libraries, and NGOs, we explore the preconditions for and possibly upscaling collaborative consumption using public libraries. There are many reasons why public libraries engage in sustainability and the SDGs. Building on a historical foundation as enlightenment institutions, libraries have supported literacy, democracy and equal access to information and publicly owned goods. Institutional and professional values are rooted in ideals of education and egalitarian participation, with core societal missions of providing citizens opportunities to improve their social mobility and quality of life. The foundation of public libraries is circular consumption: the community invests in materials we can borrow, use, and return. Today, employees in libraries and other cultural institutions take on a more proactive or activist role concerning current agendas such as the social inclusion of minorities, combating loneliness, the effects of the war in Ukraine, and sustainability. We investigate this potent mix of social engagement, outreach throughout society and circular consumption as preconditions for upscaling collaborative consumption and as drivers of sustainable development.

Historically, libraries and librarians have had an activist approach to enlightenment, democracy, or social mobility, fully aligned with Scandinavian cultural policy. Lately, the activist approach has been the topic of heated debates, as it might conflict with ideas of public institutions as being neutral. Thus, activism in libraries or other public cultural institutions is complex. It is what discourse analysts call a "floating signifier", a word that points to no actual object and has no fixed meaning. Kann-Rasmussen, Hvenegaard Rasmussen, and Blomgren suggest a definition of activism that, among other things, includes taking a political stand or coupling openly to activist agendas. As an example of this, they mention sustainability, climate change, and the UN 2030 agenda (Kann-Rasmussen et al., 2023, p. 207). It is important to emphasise that activism in libraries is not necessarily in opposition to any ruling political discourse. Thus, an activist approach towards, e.g., the sustainability agenda, might also support the institutional legitimacy of the library concerning both the library field and society in a broader sense. At the same time, the individual library professional might fulfil institutional goals when engaging in various activist agendas. As shown by Mathiasson and Jochumsen (2022), legitimation is a significant part of the rationale behind libraries' sustainability strategies. In what follows, we introduce the UPSCALE project's thematic and theoretical points of departure and present four case studies situated in Norway and Denmark.

The UPSCALE Project – Public Libraries as a Driving Force for Sustainable Transitions

In the UPSCALE project, our point of departure is that *public libraries can take on a lead role as hubs* for sharing of material consumer goods, such as sports equipment, tools, and clothing, making it

mainstream to borrow and share items as an alternative to overconsumption. Sharing in the setting of libraries is a well-established social practice that renders the threshold for further sharing of resources is Public libraries have in place efficient systems and infrastructures for sharing books, literature, music, and movies, and in recent years, they have become essential arenas for co-creation and learning (Jochumsen et al., 2017). Our outset is socio-technical transition theories (Geels et al., 2012; Hargreaves et al., 2013) and the conception of local public libraries as important "niche actors," coordinating and integrating grassroots initiatives and creating momentums for systemic change. Public libraries are uniquely positioned to effect change on a grassroots level, and as national institutions, their impacts cross regional borders. Given the urgency of climate change and environmental degradation, these are crucial efforts to engage citizens and enterprises.

Two decades of emerging trends of sharing economy initiatives have sparked our research interest. From the collaborative computing movement in the late 1990s, a "sharing turn" appeared in the economy, with the introduction of information and communication technologies (ICT) to facilitate various forms of sharing, lending, bartering and co-production (Belk 2014; Botsman and Rogers, 2011). Studies suggest that sharing initiatives reduce private consumption by making use of underutilized goods and thus contribute to the SDGs with beneficial environmental (Cohen and Kietzmann, 2014; Westskog et al., 2021), social (Albinsson et al., 201; Bradley, 2022) and economic effects (Sheth et al., 2011). In a library context, tool lending librarianship has been illuminated and discussed in several studies (e.g., Söderholm, 2016, 2018). However, there is a lack of solid evidence showing that sharing initiatives reduce consumption when rebound effects are considered (Frenken et al., 2017; Martin, 2016). Moreover, even as sharing initiatives often entice media attention, most are shortlived and attract a small number of active users. Thus, there is a need for knowledge on how sharing can be upscaled in the sense that the sharing practice spreads to a broader audience (Boyer, 2015).

In the following sections, we present results from four case studies in Norway and Denmark where local public libraries coordinate and facilitate sharing activities in collaboration with private, public and/or NGO partners. To prepare the ground for our empirical research, Mathiasson and Jochumsen (2022) conducted a comprehensive literature review on existing research on libraries, sustainability, and sustainable development. The study identified and categorised libraries' sustainability rationales as optimisation, legitimation, demonstration, and transformation. The latter two rationales are particularly interesting to the UPSCALE research project, focusing on demonstrating sustainable lifestyles and initiating transformative outreach in society (Mathiasson and Jochumsen, 2022). Including libraries working with local sharing initiatives in different regions and nations opens for comparative analysis across diverse institutional and cultural settings and continuous learning along the way.

Our cases illuminate some of the diversity of activities taking place and important lessons learned about factors critical to managing a further upscaling of collaborative consumption. From Odense in Denmark, Mathiasson and Jochumsen (2023) present "The Sustainable Library," a retrospective case study of a first-mover sharing initiative within public libraries in the Nordic countries. Solum and Førde present "From Stigma to Cool," a case study of TURBOⁱⁱⁱ, a nationwide and library-connected collaborative consumption of outdoor equipment in Norway. Guillen-Royo presents a case study from Drammen public library in Norway focused on the role of emotions as drivers or barriers to upscale sharing. Our last contribution is Mathiasson and Jochumsen's "Working with Utopias," a case study of the Ballerup public library in Denmark. The study examines the emerging practices of librarians working as change agents in sustainable transition processes and how these practices have influenced recent (cultural) policies.

According to the UN, a significant aspect of the sustainability agenda is creating "sustainability literacy" among the citizens. Sustainability literacy is understood as "[...] the knowledge, skills, and mindset that allow individuals to become deeply committed to building a sustainable future and assisting in making informed and effective decisions to this end" (UN, 2020). According to Hauke (2018), IFLA member and co-founder of the German "Green-Library Network", sustainability literacy is an essential task for libraries: "Libraries have a legal and moral obligation to contribute to sustainability education through teaching more than information literacy; they should take over the leadership in teaching sustainability literacy" (Hauke, 2018). Therefore, a central aspect of all case studies is to shed light on how the different activities described and analysed contribute to sustainability literacy.

Odense - "The Sustainable Library"

In theory, with its existing digital, physical, and social infrastructures, the modern public library seems readily equipped to facilitate the lending and sharing of alternative collections. In practice, however, sharing initiatives often prove challenging and resource-demanding to maintain as a durable part of the library. An example is The Sustainable Library (Det Bæredygtige Bibliotek), a now-concluded sharing initiative from 2016 to 2022 in the Odense public libraries. With this sharing initiative, Odense public libraries were the first movers in the sustainability turn within the library field in Denmark and the Nordic countries.

The Sustainable Library sharing initiative allowed library users to borrow so-called "sustainability kits", covering everything from fully equipped fishing and outdoor kits to equipment for indoor activities such as knitting, home exercise, and baking. As the names indicate, both the sharing initiative and its sustainability kits were branded as fostering sustainability, mainly concerning sustainable consumption through equipment sharing by taking advantage of the sharing economic potentials of the public library (Mønsted, 2020). Besides a wish to foster sustainability, the sharing initiative served a socio-economic purpose in terms of an intended municipal collaboration offering job training for refugees and an educational purpose as it included partnerships with elementary schools with teaching activities focused on sustainability and recycling, and a socially integrative purpose, as many kits encouraged a shared user experience.

Taking advantage of the reflective distance to the sharing initiative, the study has been designed as a retrospective case study, which allows the researchers to build on the knowledge generated from past experiments, hindsight reflections, and "observations about the final state of a process outcome" (Mills et al., 2010, p. 825). The data collection methods consisted of qualitative interviews, a document study, and a field visit, focusing on the organisational setting of the sharing initiative. By collecting data after the occurrence of significant events, the retrospective case study focuses on "first-person accounts and archival data" to "reconstruct a timeline of events" (Mills et al., 2010, p. 825). Examining the case from its organisational context, the study asks how and why the sharing initiative was developed, what were its preconditions and drivers, and which barriers were experienced along the way. By reconstructing the life cycle of The Sustainable Library, the study offers empirical insights into the sharing initiative and the preconditions, drivers, and barriers prevalent through its different phases: from its initial idea to the development and implementation till it was out phased and finally concluded. Moreover, the study makes room for hindsight reflections on the role and responsibility of libraries in the sustainability agenda.

The Sustainable Library is a unique case, an early example of a "limitless things collection" (Robison and Shedd, 2017, p. 15), focusing on kits, not isolated products or things. Moreover, it can be considered an early experiment with sustainable librarianship, where librarians work proactively

toward sustainability and sustainable development. Such experiments do not come without challenges. During its life span, The Sustainable Library sharing initiative faced several barriers, such as limited loan activity, political opposition, and accusations of unfair competition. However, one of the main barriers was, ironically, conflicting understandings amongst the project group members of sustainability and what it meant to be "sustainable".

Looking at the sharing initiative retrospectively, the informants all agree that the project would fit better into the sustainability debate of today as there has been a shift in the general attitude toward sharing initiatives and alternative practices supporting sustainability. During the past seven years, a transition has occurred within the public library field towards recognising sustainability as an unavoidable and essential agenda and a way of legitimising the library (see Mathiasson and Jochumsen, 2022). In 2019, sustainability was included as a core value of the American Library Association's "Core Values" (American Library Association, 2019). At about the same time, an interorganisational network called DB2030^{iv} was established in Denmark to strengthen and support libraries' work with sustainability literacy and the SDGs. Similar networks are found in other countries as well. From this perspective, The Sustainable Library sharing initiative represents a development from sharing initiatives being somewhat controversial towards a broader acknowledgement of such initiatives as part of the sustainability agenda. Moreover, the case of The Sustainable Library represents how minor alternations can eventually lead to enlarged possibilities and room for manoeuvring.

Tromsø – "From Stigma to Cool"

Sharing initiatives can evolve as collaborations between public libraries, local community actors, and private, public and NGO partners. Organisational ties differ across contexts, with relaxed or stronger and integrative partnerships. TURBO and BUA^v is such an example where public libraries have developed partnerships for equipment lending suited for locally embedded needs and the public libraries' capacities.

In many regions of Norway, there are outdoor equipment lending outlets inside or adjacent to public libraries. These initiatives have roots in the 20th century and speak to the hugely important outdoor culture in the Nordic countries. Participation in outdoor leisure and sports activities is considered to benefit public health and social cohesion, and it follows that lending equipment for free has become an objective of the welfare state (Directory of Health, 2010; Gurholt and Haukeland, 2019). Since the 1990s, lending services have evolved from an atomised structure to a network of about 200 outlets organised by the BUA foundation (Erdvik and Bjørnarå, 2022). Against a backdrop of increased consumption of outdoor equipment and clothing (All et al., 2011; Statistics Norway, 2021), access-based consumption contributes to the overall sustainability of outdoor recreation. Still, the practices, impacts and outcomes remain under-researched – leading to the UPSCALE group's interest in this emerging and library-connected sharing economy. Through an exploratory case study on TURBO, a widely used BUA outlet in Tromsø, Northern Norway, we have studied the dynamics of this collaborative sharing practice. We have aimed to provide an in-depth analysis of users' practices and motivations for partaking in collaborative consumption and investigate the possible poverty-related stigma inscribed in borrowing instead of buying equipment (see Goffman, 1963).

TURBO was initiated by the Red Cross in 2011, and, leading up to 2019, the organisation partnered with Tromsø municipality and BUA to integrate stable funding and digital technology with human rights ideals. Following a move to the City Hall, next to the public library, the number of users increased to approximately 2000 annually. During our fieldwork and interview study, we experienced a high degree of trust, joyfulness and affinity between lenders and borrowers, newcomers, and

experienced outdoor enthusiasts, conceptualised as "energising" the collaborative consumption practice (see Fraanje and Spargaaren, 2019, p. 505). Like public libraries (Jochumsen et al., 2012), TURBO is a meeting place and a "third space." A transfer of knowledge, experiences, and skills is inherent in the practices and integral to the mission to secure equal participation in outdoor activities for children and youth. Reuse, repair, and maintenance of materials are essential to the organisations' environmental profile, extending life cycles – a core circular economy principle of this access-based sharing economy (Acquier et al., 2017; Kirchherr et al., 2017). Reframing equipment lending as a sustainable alternative to unsustainable consumption has increased in popularity as the public engages in climate agendas and sustainability.

TURBO caters to culturally embedded and context-specific demands and is cool by association with the vibrant outdoor scene in Tromsø. Using non-owned equipment is deemed socially acceptable, although our study suggests a difference in perceptions among those borrowing out of necessity, not a choice, lifestyle perspectives, or values. By lending equipment and providing the knowledge necessary to access the arctic landscape, TURBO democratises the outdoors. This exemplifies how the BUA network serves as a social infrastructure where sharing bridges boundaries and contributes to equal participation for all. We see this as conducive to a trajectory of collaborative consumption that promises to reinforce the "civil society" aspects of sharing (Fraanje and Spaargaren, 2019). While building sustainable local communities, upscaled collaborative consumption at TURBO and in the BUA network may reduce consumption and mitigate the harmful environmental impacts of outdoor recreation.

Drammen – "Internal and External Challenges to Upscale Sharing"

This case study revolves around the public library of Drammen, a medium-sized municipality close to the Norwegian capital. The library has four main outlets. The largest is situated within a modern building shared with the local University in the city centre, another sits in a relatively deprived neighbourhood, and two are in nearby villages. As knowledge of the environmental impacts of everyday lifestyles expands and action becomes urgent, libraries have initiated a series of learning and action-based strategies to reduce society's ecological impact (Claudelin et al., 2022). One such strategy is direct engagement with SDG 12 on reduced consumption and production through involvement in "libraries of things" or "tool libraries" (Ameli, 2017). Consequently, this case study is focused on the extent to which the library engages in SDG 12 by promoting the sharing of tools and equipment. Drawing on social practice theory, it explores the emotions of users and library staff as they engage (or not) in sharing tools/equipment. Emotions are used as an entry point to study the potential to upscale sharing (Franjee and Spaargaren, 2011). The study draws on data from observations, library and municipal surveys and qualitative interviews (see Guillen-Royo, 2023).

Drammen Library has engaged in many sharing initiatives in the past, most of them discontinued and some in the process of consolidating. Decades ago, paintings by local artists were regularly put on loan. More recently, three-dimensional (3D) printers, sewing machines, gaming equipment and musical instruments have been made available or loaned to library users. 3D printers and musical instruments are two examples of sharing initiatives that originated internally. Both stemmed from the interest and expertise of individual librarians and their desire to share their engagement with the public. Both were challenged due to librarians' frustration with the lack of financial and logistic support, which reversed the initial positive emotions and hindered the continuity of the sharing initiative. Positive emotions are also behind users' engagement in winter sports and often spread to the practice of borrowing the necessary equipment. Drammen's library does not loan sports

equipment but has recently been approached by outlets connected to BUA, the foundation running most outdoor equipment lending outlets in Norway (Erdvik and Bjørnarå, 2022).

The BUA network operates with different degrees of involvement; some outlets are run by charities with a loose link to the foundation, and others depend on BUA for financial and logistic support. Drammen's library directly collaborates with BUA in one of the nearby villages, where, as in Tromsø, the library and the lending outlet share a municipal building. This is not the case in the main library building, located 1.5 km from the lending outlet run by a Christian charity with a loose link to BUA. Those who borrow sports equipment there are often library users, but the opposite does not always hold. Library users report physical and emotional distance as a reason for not borrowing outdoor equipment. The charity outlet is perceived as too far, the process of fetching and returning items too cumbersome, and the equipment too battered to be attractive. Exercising or spending time outdoors is a defining trait of the Norwegian identity (Goksøyr, 2013), and borrowing the necessary equipment has never been a part of the practice except for the poor. However, many believe that a tighter collaboration between the charity and the public library might help bridge the physical and emotional distance experienced by parts of the general population. This is reflected in the results of a municipal survey, where those who felt anxious and worried about loaning tools and equipment would be willing to engage in borrowing if the library was involved in the initiative (Guillen-Royo, 2023).

Ballerup - "Working with Utopias"

In 2017, the International Federation of Library Associations and Institutions (IFLA) initiated its "Global Visions" program to develop a new strategy based on the visions of library and information workers from around the world. This strategy was seen as "a framework for action" (IFLA, 2019), encouraging library and information workers to "initiate the change that is urgently needed facing global challenges like climate change, poverty, hunger, gender equality, etc." (Hauke, 2018, p. 1)—for example, finding new ways to activate knowledge and facilitate action on an everyday level as "exemplars, educators, and enablers" (McDevitt 2020, 10) of change. Since then, in line with new needs, standards, and demands for action (see Hauke, 2018; IFLA, 2019; 2021), libraries and librarians across the world have worked proactively with sustainability, sustainable development, and the UN SDGs (Mansour, 2020; McDevitt, 2020; Mathiasson and Jochumsen, 2022), for example by providing alternative collections and events supporting sustainable transitions (Beutelspacher and Meschede, 2020), or by engaging citizens in the UN 2030 Agenda and the SDGs through educating sustainability literacy (Hauke, 2018; Mansour, 2020).

This study focuses on how public libraries, or more specifically, public librarians, act as change agents in sustainable transition processes and why they do so. Empirically, the study builds on a case study of a Danish library system, Ballerup public libraries, a public library system in the Greater Copenhagen Area, and the emerging practices of the librarians working with the SDGs. Since 2019, Ballerup public libraries have focused on engaging, educating, and enabling the public in the UN 2030 agenda and the SDGs by arranging festivals and forming partnerships and networks. The library's engagement in establishing an inter-organisational network DB2030 is particularly important here. The DB2030 network is an agile national network "for libraries and actors working with the SDGs and wants to be part of creating civil engagement through libraries" (DB2030, n.d.). Since its establishment in 2019, the DB2030 network has advocated for the role of libraries in the SDGs and has had a significant impact on Danish politics. For example, in the 2021 governmental Action Plan for the UN SDGs (Handlingsplan for FN's Verdensmål), the Danish public libraries are mentioned as local anchors for the SDGs (Regeringen 2021). Noteworthy of this work is the idea of "working with Utopias"

(informant) as a method for working with the SDGs towards sustainable societal transformation and positioning both libraries and librarians as part of the solution.

By describing and analysing the emerging practices of the librarians at Ballerup public libraries and the DB2030 network, the study offers evidence of how librarians have inspired and engaged others to work proactively with sustainability and the SDGs, how this work is being practised and how these emerging practices have become sustained in a national network and governmental action plans. Moreover, by asking how we can understand the work of Ballerup public libraries and the DB2030 network as a foresight of sustainable librarianship, the study critically reflects on the possible consequences and significance of these practices to future librarianship.

Theoretically, the study builds on ideas of inside activism, social innovation, and social entrepreneurship. The concepts of "(green) inside activism" and "inside activists" (Hysing and Olsson, 2018) help understand how librarians (can) work towards sustainable transition from within their organisations. According to Hysing and Olsson (2018), inside activism is "carried out" by the professionals in the respective institution or organisation. These professionals are the inside activists. As a theoretical concept, inside activism "captures institutional political agency of public officials being personally committed to civil society networks and organisations and ready to support their agendas by acting within public organisations to induce policy and institutional change" or to "change or secure institutional rules, norms, and practices" (Hysing and Olsson, 2018, p. 6). As indicated in the introduction, inside activism is not necessarily in opposition to any institutional goals. However, the inside activists use their position in the library to influence public decision-making and action regarding the agenda they are engaged in. As inside activists, the librarians work as change agents in pursuing a more sustainable future through shared visions or utopias. Understanding the librarians as inside activists helps operationalise ideas about activism within public organisations such as libraries while still acknowledging the librarians' creative political agency, which is present in the practices of the librarians in this case study. The study argues that these social innovations offer alternative socio-economic futures, which are being sustained in practice and that these practices hold important insights into the envisioned futures of sustainable librarianship.

Concluding remarks

In their book *Kæmp for kloden* (Fight for the Planet), the Danish philosophers Frederiksen and Hendricks (2018) formulate our situation very precisely: If we do not change our way of life significantly in the coming years, we will pass on a globe to our children and grandchildren in a far worse condition than the one we inherited from our ancestors. According to Frederiksen and Hendricks, we are all responsible for taking on this fight. To capture this shared responsibility, they introduce the concept of "Unified Social Responsibility" (USR). USR stresses the importance of politicians, researchers, and businesses, including practitioners and organisations, working together to create a better future. Thus, when saying that we are responsible for changing our way of life, that is all of us as individuals, practitioners, and researchers. The UPSCALE research project is an example of USR, both in the project's conception and in its focus of study.

By introducing some of the UPSCALE case studies, this article shows how public libraries and librarians have taken up this challenge and acted as change agents in different ways. That might be by facilitating and promoting the lending and sharing of alternative collections in the library or by building collaborations, partnerships, and networks with local community actors, NGOs, and other local and national partners. Thus, we see the contours of sustainable librarianship supporting sustainability literacy among the citizens. As presented in this article, the researchers in the UPSCALE

project are investigating the developments of public library services regarding sustainability and sharing economy initiatives through various methodological and theoretical approaches. By doing this, we hope to contribute significantly to the knowledge of barriers and drivers for librarians to work with the sustainability agenda, including upscaling circular economy and sharing practices. At the same time, we focus on how the citizens receive the libraries' sustainability initiatives. The results collected and the knowledge gained are aimed at scholars, politicians, and practitioners within the library field, enabling them to reflect on, develop and improve their efforts towards sustainability.

We look forward to publishing and otherwise communicating results from the UPSCALE project. This article represents ongoing research in the pipeline for publication while more are underway. This applies pilot trials of a new system for sharing based on library cards in hardware stores and estimations of potential climate emission reductions from sustainable sharing through libraries. Furthermore, we expect to contribute to discussions on how public libraries can play an active role in the creation of a more sustainable future and, in the best case, contribute to passing on the globe to our descendants in a better condition than the one we inherited from our ancestors.

References

- Aall, C., Klepp, I.G., Engeset, A.B., Skuland, S.B., & Støa, E. (2011). Leisure and sustainable development in Norway: Part of the solution and the problem. *Leisure Studies*, *30*(4), 453–476. https://doi.org/10.1080/02614367.2011.589863
- Acquier, A., Daudigeos, T., & Pinkse, J. (2017). Promises and paradoxes of the sharing economy: An organizing framework. *Technological Forecasting & Social Change, 125*, 1-10. https://doi.org/10.1016/j.techfore.2017.07.006
- Ameli, N. (2017). Libraries of things as a new form of sharing. Pushing the sharing economy. *The Design Journal*, 20(1), S3294-S3304. https://doi.org/10.1080/14606925.2017.1352833
- Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research*, *67*(8), 1595-1600. https://doi.org/10.1016/j.jbusres.2013.10.001
- Beutelspacher, L., & Meschede, C. (2020). Libraries as promoters of environmental sustainability: Collections, tools and events. *IFLA Journal*, *46*(4), 347–358. https://doi.org/10.1177/0340035220912513
- Botsman, R., & Rogers, R. (2011). What's mine is yours: How collaborative consumption is changing the way we live. Collins.
- Boyer, R. W. H. (2015). Grassroot innovation for urban sustainability: Comparing the diffusion pathways of three ecovillage projects. *Environment and Planning A, 47(2),* 320-337. https://doi.org/10.1068/a140250p
- Bradley, K., & Persson, O. (2022). Community repair in the circular economy fixing more than stuff. *Local Environment, 27*(10-11), 1321-1337. https://doi.org/10.1080/13549839.2022.2041580
- DB2030 | Netværk for biblioteker og aktører, der arbejder med FN's Verdensmål (n.d.). Retrieved June 19, 2023, from: https://db2030.dk/
- Claudelin, A., Tuominen, K., & Vanhamäki, S. (2022). Sustainability perspectives of the sharing economy: Process of creating a library of things in Finland. *Sustainability*, *14*(11), 6627. https://doi.org/10.3390/su14116627
- Cohen, B., & Kietzmann, J. (2014). Ride on! Mobility business models for the sharing economy.

 Organizations and Environment, 27(3), 279-296. https://doi.org/10.1177/108602661454619

- Directory of Health (2010). Hvordan etablere utstyrssentral Fysisk aktivitet og friluftsliv. (Brosjyre). Retrieved November 7. 2022, from: https://www.helsedirektoratet.no/brosjyrer/hvordan-etablere-utstyrssentral-fysisk-aktivitet-og-friluftsliv
- Erdvik, I. B., & Bjørnarå, H. B. (2022). BUA-nettverkets omdømmeundersøkelse: Resultater fra 2022. NORCE Helse og Samfunn. Retrieved November 10. 2022, from: https://hdl.handle.net/11250/2999153
- Fraanje, W., & Spaargaren, G. (2019). What future for collaborative consumption? A practice theoretical account. *Journal of Cleaner Production*, 208, 499–508. https://doi.org/10.1016/j.jclepro.2018.09.197
- Frederiksen, C.S. & Hendricks, V. F. (2018) Kæmp for kloden. Gyldendal.
- Frenken, K., & Schor, J. (2017). Putting the sharing economy into perspective. *Environmental Innovation and Social Transformation*, 23, 3-10. https://doi.org/10.1016/j.eist.2017.01.003
- Geels, F. (2012). A socio-technical analysis of low-carbon transitions: introducing the multi-level perspective into transport studies. *Journal of Transport Geography*, *24*, 471-482. https://doi.org/10.1016/j.jtrangeo.2012.01.021
- Goffman, E. (1963). Stigma: Notes on the management of spoiled identity. Simon & Schuster.
- Goksøyr, M. (2013). Taking ski tracks to the north. The invention and reinvention of Norwegian polar skiing: Sportisation, manliness and national identities, *The International Journal of the History of Sport*, *30*(6), 563-579. http://hdl.handle.net/11250/218693
- Guillen-Royo, M. (2023). Exploring the role of emotions in upscaling collaborative consumption through libraries in Norway. *Cleaner and Responsible Consumption*, 8, 100108. https://doi.org/10.1016/j.clrc.2023.100108
- Gurholt, P. K., & Haukeland, P. I. (2019). Scandinavian *friluftsliv* (outdoor life) and the Nordic model. In: Tin, M. B., Telseth, F., Tangen, J. O., & Giulianotti, R. (eds.). *The Nordic model and physical culture*. Routledge. https://doi.org/10.4324/9780429320187
- Hargreaves, T., Hieschler, S., Seyfang, G., & Smith, A. (2013). Grassroots innovations in community energy: The role of intermediates in niche development. *Global Environmental Change*, 23(5), 868-880. http://dx.doi.org/10.1016/j.gloenvcha.2013.02.008
- Hauke, P. (2018). From information literacy to green literacy: Training librarians as trainers for sustainability literacy. Retrieved February 12. 2023, from: http://library.ifla.org/2147/
- Hysing, E., & Olsson, J. (2018). *Green inside activism for sustainable development political agency and institutional change*. Springer International Publishing. https://doi.org/10.1007/978-3-319-56723-5
- International Federation of Library Associations. 2019. IFLA Strategy 2019 2024. September 2019. https://repository.ifla.org/handle/123456789/25
- International Federation of Library Associations. 2021. LET'S WORK TOGETHER FOR THE FUTURE.

 Retrieved November 8. 2021, from: https://www.ifla-wlic2021.com/
- Jochumsen, H., Rasmussen, H. C., & Skot-Hansen, D. (2012). The four spaces a new model for the public library. *New Library World*, *113*(11/12), 586–597. https://doi.org/10.1108/03074801211282948
- Jochumsen, H., Rasmussen H. C., & Skot-Hansen, D. (2017). Towards Culture 3.0 Performative space in the public library. *International Journal of Cultural Policy*, 23(4), 512-524. https://doi.org/10.1080/10286632.2015.1043291
- Kann-Rasmussen, N., Hvenegaard Rasmussen, C., & Blomgren, R. (2023). LAMs as activists? Dilemmas between neutrality and taking a stand. In: Hvenegaard Rasmussen, C., Rydbeck, K., & Larsen, H. (eds.). Libraries, archives and museums in transition: Changes, challenges, and

- convergence in a Scandinavian perspective. Routledge.
- https://doi.org/10.4324/9781003188834
- Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling*, 127, 221–232. https://doi.org/10.1016/j.resconrec.2017.09.005
- Mansour, E. (2020). Libraries as agents for development: The potential role of Egyptian rural public libraries towards the attainment of Sustainable Development Goals based on the UN 2030 Agenda. *Journal of Librarianship and Information Science*, *52*(1), 121–136. https://doi.org/10.1177/0961000619872064
- Martin, C. J. (2016). The sharing economy: A pathway to sustainability or a nightmarish form of neoliberal capitalism? *Ecological Economics*, *121*, 149-59. http://dx.doi.org/10.1016/j.ecolecon.2015.11.027
- Mathiasson M. H. & Jochumsen H. (2022). Libraries, sustainability and sustainable development: a review of the research literature. *Journal of Documentation*, 78(6): 1278–1304. https://doi.org/10.1108/JD-11-2021-0226
- Mathiasson, M. H., & Jochumsen, H. (2023). The Sustainable Library: A retrospective case study of a public library sharing initiative. *Journal of Librarianship and Information*Science, 0(0). https://doi.org/10.1177/09610006231190131
- McDevitt, J. (2020). Words that start with E and other reasons for librarians to fight climate change and climate change denial. ERA. https://doi.org/10.7939/r3-bxqh-7950
- Mills J., Durepos G., & Elden W. (2010). Encyclopedia of Case Study Research. Los Angeles: SAGE.
- Mønsted, S. (2020). Bibliotekerne er indbegrebet af deleøkonomi. *Perspektiv*, November 2020. Retrieved February 17. 2023, from: https://kulturoginformation.dk/media/38758/perspektiv 20201127.pdf
- Regeringen. 2021. Handlingsplan for FN's verdensmål. Finansministeriet/Danish Ministry of Finance.
- Robison, M., & Shedd, L. (2017). A history of things collections: From specialized precursors to present-day diversity. In: Robison M., & Shedd L. (eds.) *Audio recorders to zucchini seeds: Building a library of things*. Libraries Unlimited, pp. 15–25.
- Sheth, J. N., Sethia, N. K., & Srinivas, S. (2011). Mindful consumption: A customer-centric approach to sustainability. *Journal of the Academy of Marketing Science*, *39*(1), 21-39. https://doi.org/10.1007/s11747-010-0216-3
- Söderholm, J. (2016). Borrowing tools from the public library. *Journal of Documentation*, 72(1), 140–155. https://doi.org/10.1108/JD-01-2015-0010
- Söderholm, J. (2018). Tool lending librarianship. *Journal of Librarianship and Information Science*, *50*(4), 374–385. https://doi.org/10.1177/0961000616666627
- Statistics Norway (2022). *Index of wholesale and retail sales*. Retrieved November 9. 2022, from: https://www.ssb.no/statbank/table/09296/tableViewLayout1/
- Thiele, L. P. (2016). Sustainability (2nd ed.). Polity.
- United Nations (2020). Raising awareness and assessing sustainability literacy on DDG 7. Retrieved May 17. 2023, from: https://sustainabledevelopment.un.org/sdinaction/hesi/literacy.
- Westskog, H., Julsrud, T. E., Kallbekken, S., Frenken, K., Schor, J., & Standal, K. (2021). The role of community sharing in sustainability transformation: Case studies from Norway. Sustainability: Science, Practice and Policy, 17(1), 334-348. https://doi.org/10.1080/15487733.2021.1969820

ⁱ UPSCALE is an abbreviation of "Upscaling Sustainable Collaborative Consumption using Public Libraries."

ⁱⁱ Boyer (2015) makes a distinction between "Scaling up", describing the application of a practice beyond its activist core and "Translation" to capture the process when a niche is transforming the regime activities. We will here stick to the term scaling up /upscaling to describe both these aspects.

iii The name TURBO combines "tur", hike, with "bod", which translates to "storage space" or "shed".

The acronym "DB" stands for "Danmarks Biblioteksforening" (the Danish Library Association), which was part of establishing the network and is now responsible for the secretariat function. For more information on the DB2030 network, see https://db2030.dk/

^v BUA is an acronym for "Barn-Unge-Aktivitet", which translates to Children-Youth-Activity.