Article

Sustainability 3.0 in Libraries: A Challenge for Management

Dr. Alice Keller

Director, University of Basel, University Library, Schönbeinstrasse 18-20, 4056 Basel, Switzerland; E-Mail alice.keller@unibas.ch | http://www.ub.unibas.ch; ORCID 0000-0001-6185-2635

Abstract: This article works on the three questions: "How can libraries make an effective contribution to resolving the sustainability challenges we are collectively facing?"; "When are libraries truly sustainable?"; and "How can library management support this shift?". Looking across libraries and their history of the last decades, the author discerns different stages of development leading to sustainability. In line with the work of Dyllick and Muff (2016) the author describes Sustainability Levels 0.0 to 3.0. The highest level requires a quantum leap and shifts from thinking inside-out to outside-in.This article addresses the need that there is virtually no academic management literature on the topic of sustainability in libraries. It shows that whilst there are many examples of individual projects or activities, there is a serious lack of methodology senior management level.

Keywords: Academic Libraries; Sustainability; Management

Introduction

The UN Sustainable Development Goals (SDGs) are defined at global level and provide a binding framework for solving the most urgent societal challenges by the year 2030. These SDGs are summarised in the UN's 2030 Agenda and are promoted strongly by library associations worldwide[1]. Nevertheless, it is becoming apparent that current programmes and activities, while appropriate and important, will be far from sufficient to solve the most urgent societal challenges by 2030 in order to counteract the steadily deteriorating state of our planet.

Nothing less than a quantum leap is called for in society, science and politics. Instead of focusing predominantly on existing activities and considering the Sustainable Development Goals (SDGs) merely as a burdensome obligation, organizations and companies are invited to understand the UN Goals as an opportunity or source for long-term innovation and success. Such a quantum leap is often referred to as transformation and goes hand in hand with a change of perspective from inside-out to outside-in. Schneidewind focuses on scientific institutions but also provides an example of how this shift or transformation can be applied to universities as a whole: "A 'transformative university', understood in the broad sense, is therefore one that sees major societal challenges as the starting point of its research and teaching, and shapes change processes in collaboration with societal actors." (Schneidewind 2014; see also Schneidewind, Singer-Brodowski, and Augenstein 2016).

In this paper we ask the question: What would this quantum leap or transformation look like at academic or university libraries? What challenges are needed so that libraries could play a significant role in solving society's most pressing challenges? This paper explores this question and, based on Dyllick and Muff's typology (Dyllick and Muff 2016), describes four levels of sustainability and key development steps in libraries.

Methodology

[1] For example, IFLA Powering Sustainable Development: https://www.ifla.org/de/units/sustainable-development/

 doi:10.20944/preprints202212.0150.v1

As mentioned above, this paper explores the question of where academic libraries stand in relation to sustainable development. What stages of development are discernible and what further steps are necessary or possible in order to fulfil the sustainability targets? This paper both attempts to look forward, but also looks backwards and analyses and evaluates the developments of the last decades from the a sustainability perspective.

Answering these questions requires a model or concept that can serve as a framework for classification of activities or evaluation of progress. While library literature covers numerous examples of individual projects and initiatives, and while the 2030 Agenda provides a useful tool to classify such efforts, there is no comprehensive framework to assess overall progress or guide strategic management.

Searching for a suitable model and moving outside Library and Information Science, the author came across the Business Sustainability Typology of Dyllick and Muff which provides a very useful framework for the present study (Dyllick and Muff 2016). These authors view sustainability from a (commercial) business or company perspective. Companies differ from libraries in that they are economically independent organizational units and take on market and capital risks in pursuit of their corporate goals. Academic or university libraries, on the other hand, are normally legally and administratively part of a parent organisation. Their work is defined by clear service agreements, and they operate within annually allocated budgets. Nevertheless, and thanks to its high degree of abstraction, the typology of Dyllick and Muff can be transferred very effectively to libraries.

Dyllick and Muff see the SDGs as an opportunity for new business orientation. While many companies only see these Goals as a burden or obligation, some recognise their value to embrace new markets or opportunities. As Peter F. Drucker said: "Every single social and global issue of our day is a business opportunity in disguise" (as cited in Cooperrider 2008).

In order to fully embrace these new opportunities and ways of thinking, companies go through different development stages, which are summarised in a Business Sustainability Typology, as proposed by Dyllick and Muff (Table 1).

This typology comprises four levels: Business-as-usual (or Business Sustainability 0.0), Business Sustainability 1.0, Business Sustainability 2.0 and Business Sustainability 3.0. In this paper, considering that we are talking about libraries not businesses, we will simply refer to the levels as Sustainability 0.0, 1.0, 2.0 and 3.0. Other changes are also necessary in order to make the typology suitable for use in libraries. For example, the term companies will be replaced by organisation or library; and shareholders by users (see further down).

Table 1. The Business Sustainability Typology with key characteristics and shifts (Dyllick and Muff 2016).

BUSINESS SUSTAINABILITY TYPOLOGY (BST)	**Concerns (What?)**	**Values created (What for?)**	**Organizational perspective (How?)**
Business-as-usual (Business Sustainability 0.0)	Economic concerns	Shareholder value	Inside-out
Business Sustainability 1.0	Three-dimensional concerns	Refined shareholder value	Inside-out
Business Sustainability 2.0	Three-dimensional concerns	Triple bottom line	Inside-out

 doi:10.20944/preprints202212.0150.v1

Business Sustainability 3.0	Starting sustainability challenges	Creating value for the common good	Outside-in
The key shifts involved:	**1st shift: broadening the business concern**	**2nd shift: expanding the value created**	**3rd shift: changing the perspective**

In their typology Dyllick and Muff use three characteristics or columns, which they call "concerns", "values created" and "organizational perspective".

- "Concerns" (what?) are dimensions that companies consider and address in order to achieve sustainability. These include economic, environmental and social issues according to the three pillars model of sustainability. These concerns apply equally to companies and libraries; therefore, this first column can be taken over for our purpose without any further changes.
- "Values created" (what for?) refer to the values that companies create or maintain, and which target groups or sections of society they address. As libraries serve different purposes and customer groups, the content of this column needs to be significantly redefined for the library context. This is explained and shown further down.
- The third column addresses the "organizational perspective" (how?) that companies take. This refers to how companies perceive risks and opportunities, and to what extent sustainability is embedded throughout the organization. Dyllick and Muff summarise this perspective as thinking or acting from inside-out or outside-in. Even though such a perspective can be used for a library setting, further interpretation will be necessary, as shown further down.

The black arrows indicate the key shift of the respective level.

In order to stay true to Dyllick and Muff, the underlying concept of the Business Sustainability Typology should be applied to the academic library setting as unchanged as possible. Nonetheless, to encourage engagement and make it more explicit, this paper takes the liberty to elaborate further and add examples from an academic library environment. This elaboration is shown in Table 2, where two explanatory columns called "external and internal factors influencing libraries" and "innovations in libraries" are added on the right. In short, the framework proposed here builds on the model of Dyllick and Muff, but adds a further layer to make it more easily applicable to libraries.

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 8 December 2022 doi:10.20944/preprints202212.0150.v1

Table 2: Typology of sustainability in libraries, developed by Alice Keller based on Dyllick and Muff (2016). The black arrows mark the key shifts of each level.

	Concerns (What?)	Values created (What for?)	Organizational perspective (How?)		External and internal factors influencing libraries	Innovations in libraries
Sustainability 0.0 Increasing efficiency through centralisation and standardisation	Economic concerns ↓	Institution benefits from centralisation. Increased efficiency through standardisation and automation.	Inside-out thinking: "We know what is best for the customer". Focus on large user groups.		- Global information overload - Emergence of computing - Strong increase in student numbers - Price spiral, "serials crisis»	- Rise of common standards and rules - Professionalisation of staff - Large library networks run library management systems - Electronic journals, books and databases
Sustainability 1.0 Strengthening customer orientation	Three-dimensional concerns (economic, environmental, social)	Customer and environmental needs are taken in consideration. Reorientation from collection management to the user service. ↓	Inside-out thinking: "We listen to our customers".		- Changing needs of users - User surveys, usage data - Power monopoly of large academic publishers and internet giants (example Google)	- Library as third place, learning spaces - Usability studies - Emergence of green libraries - Open access offers new opportunities - Project management + marketing in libraries are professionalised
Sustainability 2.0 Sustainability targets as an element of library strategy	Three-dimensional concerns (economic, environmental, social)	Three-dimensional value creation for broader stakeholder group (triple bottom line). Sustainability targets are part of the library strategy.	Inside-out thinking: "We think and act broadly". High degree of networking between the libraries. ↓		- Strategic importance of sustainability - New political or legal frameworks (example copyright) - Researchers and funders demand sustainability - Employees claim better work-life balance	- Sustainability targets are part of the library strategy - Open Science gains momentum, introduction of OA monitoring - Sustainability reports - Revised copyright / CC licences - Libraries explore new professional fields (research support)
Sustainability 3.0 The library turns perspective to look from outside-in	Starting sustainability challenges	Sustainability targets are in the foreground. The library thinks and acts globally.	Outside-in: "We are inspired and guided from the outside; together we contribute to the solution of societal challenges".		- Understanding of data and information as common good - Call for radical changes - Self-management, wholeness and evolution of organisations	- Participation of the library in the value creation process as a whole - New, cross-border forms of collaboration - Increased agility
The key shifts involved:	**1st shift: broadening the business concern**	**2nd shift: expanding the value created**	**3rd shift: changing the perspective**			

The four stages of sustainability in libraries

Sustainability 0.0: Increasing efficiency through centralisation and standardisation

For Dyllick and Muff, Sustainability 0.0[2] focuses on dealing with economic concerns and challenges. A look at recent library history shows how economic concerns, including rising publishing output, book and journal prices, library stock and reader/student numbers, have been in the foreground for several decades.

From a purely economic point of view, an academic or university library functions most efficiently if it is centralised, and if processes are highly standardised. Such centralisation of staff and budgets – in contrast to distribution of responsibilities over a number of (independent) faculty or departmental libraries –, is typically encouraged by university administrations. Moran describes an increasing centralisation since the late 1930: "At most institutions, the present trend has been to continue to centralize services as much as possible." (Moran 2017).

Centralisation both requires and makes standardisation and automation of processes possible, often supported by integrated library management systems. This development goes hand in hand with increased professionalisation, emergence of new standards and rules, and specialisation of staff. Further efficiency gains are made possible by outsourcing jobs, or by collaboration in regional or national library networks. An example for Switzerland could be the recent formation of the national non-profit company SLSP AG (Swiss Library Service Platform) to both run and administer the central library management system (Marty and Küssow 2021).

Giving priority to economic concerns is further encouraged by the global and unstoppable growth of scientific information and rise of journal prices (serials crisis), which confront most librarians with seemingly unsolvable financial problems. The emergence of digital information promises potential cost savings, while in reality, actual savings are

[2] Dyllick and Muff call this level Business-as-usual. The term Sustainability 0.0 is used here as it seems both coherent and suitable.

 doi:10.20944/preprints202212.0150.v1

minimal. Challenges currently facing library administrators can only be mastered if a strong focus is placed on streamlining and synergy gains. In comparison ecological and social objectives are pushed into the background.

The perspective is inside-out, with the library business and its objectives as the starting point and main reference for all planning and action. The focus is on centralised planning and mainstream processes. Services are designed to scale and satisfy large user groups with uniform needs - for example, students. Simply put, the librarians know what is best for their users.

Sustainability 1.0: Strengthening customer orientation

A first step towards true sustainability results from the realisation that concerns of library users and other stakeholders are changing and require a change of orientation; they are no longer based solely on economic criteria. This creates new risks and opportunities for the library. Having said this, the librarian still has to convince his superiors or university administration of such benefits. Within Sustainability 1.0, the library tries to introduce changes and respond to these new challenges without turning everything upside down. Instead, existing and proven processes and products are modified and adapted.

At this level, libraries cultivate a stronger customer orientation, which is supported by user surveys and usage data (Hernon and Altman 2010). There is a change for focus away from collection management to serving users. Ecological concerns are also brought to the library's attention, not least by committed staff members. Examples of grassroots activities in order to improve sustainability include reusable bags for books, recycled or fairtrade products, or reminders to switch off devices not in use. Services emerging as a result of stronger customer orientation include, for example, more and diverse study spaces in libraries, improvement of usability, curricula for information or digital literacy. The "Green Library" movement affects the whole of library buildings and sets new ecological objectives (Antonelli 2008; Aulisio 2013; Hauke et al. 2013).

Large academic publishers and other monopolistic information brokers are increasingly coming under pressure from librarians and faculty who do not agree with terms and conditions these multinational companies impose on universities and research communities. Libraries and funders see and promote Open Access as a possible solution.

According to Dyllick and Muff, organisations at this level notice that their reputation and attractiveness increase, if sustainability concerns are actively addressed and communicated. Within libraries, managers also become aware of the fact that public perception can be improved, if communication and marketing are staffed and handled professionally. This in turn, attracts new human talents to libraries. Of course, professional communication and marketing do not relate exclusively to sustainability goals, but such channels are an important criterion once sustainability achievements have been reached and can be made known publicly.

Sustainability 1.0 in Dyllick and Muff's typology continues to think from inside-out. In our use case, libraries are supported by their national or international Library Associations, which often supply information material, checklists, action plans or toolkits[3]. As a rule, social and environmental considerations are part of the decision-making process, but the preponderance remains on the economic objectives, such as efficiency of processes and services.

The key shift involved is described as a "broadening the business concern". The values served are somewhat refined, but still oriented toward traditional stakeholder value. As Dyllick and Muff comment, business success remains focused on serving the business itself and its economic goals.

[3] For example, the IFLA Green Library Checklist, "Sustainable buildings, equipment, and management" https://www.ifla.org/the-green-library-checklists-project/.

 doi:10.20944/preprints202212.0150.v1

Sustainability 2.0: Sustainability targets as an element of library strategy

At Sustainability 2.0 the organisation recognises that sustainability means more than just loosely recognizing the relevance of social and environmental concerns, in addition to economic concerns. Sustainability is increasingly addressed at strategic and management level. Economic, environmental and social issues are not only addressed for the benefit of existing members. Sustainability 2.0 goes beyond this and implies broadening the stakeholder perspective and pursuing a triple bottom line approach. A triple bottom line (TBL) maintains that organisations should commit to focus as much on social and environmental concerns as they do on profits (Shaffer 2018). Instead of one bottom line, there should be three: profit, people, and the planet. Thus, the stakeholder perspective is further broadened, and more space is given to specific SDGs as demanded in the 2030 Agenda.

Sustainability 2.0 clearly is more ambitious than Sustainability 1.0 and represents a big step forward in making sustainability a respected and integrated business topic. It requires the introduction of sustainability issues in strategic planning and calls for clear remits, targets, and performance indicators (Karioja 2013).

In libraries, progress towards Sustainability 2.0 is supported and spurred on by external demands and incentives. The public at large demands a higher commitment towards the environment. Advocates for open science call for more transparency and see openness as an important prerequisite for SDG 4, which calls us to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"[4]. Funders include sustainability requirements in their terms and conditions. Trade unions demand more flexible working hours, more working from home (to reduce traffic) and better work-life balance for staff (Fahrenkrog, Jobmann, and Libreas 2019).

Ideally, in order to help define and support sustainability strategies, existing guidelines or regulations can be used. These might include revised copyright legislation, new guidelines to reduce carbon footprint, metrics for monitoring open access, FAIR principles[5], or new flexitime or working from home models. Formalised sustainability reports are known mainly at the level of whole universities or councils; the extent to which libraries feed into these reports varies.

At Level 2.0 organizations still think from inside-out. Asking, how do we manage to meet external needs and requirements? However, this "inside" refers less to the individual library, but rather to the library community at large. There is a growing awareness of the strategic importance of interconnectedness, of interdependence between libraries and also national research politics. Comparing current library strategies, there is a trend to include a phrase about sustainability in the text. Such a phrase is a good indication that libraries are working at or reaching out for Level 2.0, even if in most cases the content of such this sustainability is not specifically explained. More could be done here.

Sustainability 3.0: The library turns its perspective to look from outside-in

Sustainability 3.0 addresses issues that go beyond traditional concerns of libraries. It turns its perspective from inside-out to outside-in, and asks: "What pressing sustainability issues do we want to address? What do we need to do, to develop or to stop doing in order to meet these needs?" Or: "How can existing skills, resources and experiences be used to address major environmental, economic and social challenges?" And, taking it one step further: "What skills, resources and experiences do we need to develop in order to fulfil specific sustainability targets?" Such a change of perspective leads to perceiving challenges as new possibilities and opportunities.

Sustainability 3.0 is about the creation of common goods. Values created change from triple bottom line to values for the common good. These are defined as values which ben-

[4] SDG 4 https://sdgs.un.org/goals/goal4.

[5] FAIR-Principles: Findable, Accessible, Interoperable, and Re-usable.

 doi:10.20944/preprints202212.0150.v1

efit society and the planet as a whole. They stand in contrast to private goods of individuals or groups. To do so sustainably, organisations have to find ways to do this in an economical and affordable way. In other words, the focus is no longer on the benefit for the library's own members, but on the creation of common good. A very noble aim that very quickly challenges library staff to their limits!

In the context of businesses and commercial companies, Dyllick and Muff describe different strategies to bridge the discrepancy between financial possibilities and social needs. The focus is on cross-sectoral cooperation, which can include entire value chains, common standards and best practice. Transferred to libraries, this means participation or integration in value creation processes or chains as a whole. This could, for example, refer to libraries becoming an integral part of the research lifecycle or publication process. This approach creates new and exciting opportunities or spaces for libraries to act. Libraries can then, in turn, contribute to the achievement of larger Sustainability Development Goals. Sustainability could also be seen as a renewed effort to achieve a triple bottom line in a more radical way. As Elkington points out, TBL wasn't designed to be just an accounting tool. Its stated goal from the outset was a *system change* (emphasis his) — pushing toward the transformation of capitalism (Elkington 2018).

Successful participation of libraries in the value creation process can be demonstrated in Open Science or Open Research Data programmes. One example is the model of radical collaboration in research data management. "The concept of radical collaboration means coming together across disparate, but engaged, domains in ways that are often unfamiliar or possibly uncomfortable to member organizations and individuals in order to identify and solve problems together, to achieve more together than we could separately"(McGovern 2018). A similar approach is taken in transdisciplinarity, which attempts to address complex issues by combining scientific knowledge and practical knowledge, or crossing disciplinary boundaries to create a holistic approach (Schaltegger, Beckmann, and Hansen 2013).

Sustainability 3.0 requires cooperation across boundaries and places new demands on the competences and working patterns of managers and staff. It requires new and different skills to work well with partners who may have different interests, priorities, and values. First steps of radical collaboration in the field of research data management at the University of Basel – between library and faculty – show that new governance models, professional skills and competences are needed for this kind of work.[6]

Dyllick and Muff note that, in order to create new space for economic and sustainable solutions and to scale-up the impacts, truly sustainable businesses will also have to engage in changing the rules of the game: "Engagement for changing the collective rules of the game may take many forms and range from changing accounting rules and standards for disclosing and internalizing sustainability risks and impacts, informing and educating customers about unsustainable choices and practices, to lobbying for taxes on resource consumption, emissions or for stricter standards for public health." (Dyllick and Muff 2016, p. 167).

For example, librarians regret that the bulk of scientific information continues to be withheld from the global public, due to restrictive copyright legislation and other access barriers. This situation can only be changed through political lobbying or new macroeconomic models. In order to bring about changes, librarians or information scientists – as institutions or individuals – need to form alliances and become more politically active. Naturally, some activities are in the grey zone or openly challenge current legislation. For

[6] The library is part of the Research and Infrastructure Support (RISE) Team at the University of Basel. RISE supports researchers in the humanities and social sciences in the conception of computer-based research, the creation, analysis and user-oriented presentation of digital data, as well as in sustainable and open methods of data dissemination. See https://rise.unibas.ch/en/.

 doi:10.20944/preprints202212.0150.v1

example, Sci-Hub says of itself that it is “the most controversial project in modern science”.[7]

Another question is how traditional governance structures need evolve to respond more effectively to societal concerns. Laloux presents the model of an integral, evolutionary organisation ("teal organisation"), which simulates the living organism in a complex environment (Laloux and Wilber 2014). Organic organisations, like their natural counterparts, have no hierarchies or fixed organisational charts, but adapt autonomously and fluidly to the changing environment. Moreno Romero et al. hold forth that such structures are more suited to achieve sustainability targets. Such a “breakthrough could contribute to aligning organizations with a higher purpose connected with the sustainability agenda.” (Moreno Romero et al. 2020). However, the author’s personal experience has shown that most university libraries and in particular their supporting institutions are still miles away from being able to call themselves a "teal organisation"! Nonetheless, first approaches and valuable practice and grassroot experience can be found in agile teams or in agile project management.

Conclusion

Article metrics show that the typology of Dyllick and Muff is well received in organisational and business studies, as well as in sustainability research. However, the author is not aware of any usage or description in the library and information science context. Transferring the model of Dyllick and Muff to libraries succeeds very well in parts, especially with regard to the criterias “concerns”, “organizational perspective” and the “key shifts involved”. Significant translation is required for the criterion “values created”. Furthermore, the starting point or level Sustainability 0.0 needs reinterpretation, as libraries differ very clearly from commercial businesses or companies. Here, the author chose library centralization versus decentralization and increased efficiency as a starting point. This is just one possible interpretation; other examples would be equally valid, for all levels.

Transferring a model from business research to a library context is a bold step. Nonetheless, reusing existing products or ideas, thinking across borders or seeking new kinds of cooperation, all these aspects correspond to the concept of sustainability. In this sense, this paper helps fulfils its own claim for sustainable research.

In their research, Dyllick and Muff manage to assign individual companies to specific sustainability levels. This proves difficult, if not impossible, for libraries. Referring to her own library at the University of Basel, the author notes that activities at all levels can be identified concurrently. To give a few examples: In the Social Sciences, efforts are currently being made to merge and centralise several libraries as part of a new estate strategy (Sustainability 0.0). At the Main Library new and flexible learning spaces for students were introduced recently (Sustainability 1.0). At national level the library is part of a programme to monitor open access compliancy (Sustainability 2.0). At university level, in close “radical collaboration” with faculties, the library is involved in setting up a joint Research Infrastructure Service Unit (RISE) for the humanities and social sciences (Sustainability 3.0). For a large academic library with so many different locations, stakeholders, services and cooperation partners, it is not surprising that the institution cannot be clearly assigned to one level, only. Each level has its justification or explanation for certain situations and activities. One could also argue that it is not wrong to pursue initiatives at all levels, as long as they are in line with the library’s overall (sustainability) strategy. And as long as the organisation as a whole strives for a higher level of sustainability.

Another question could be how many management resources or how much management attention are allocated to which level? If libraries want to contribute significantly to

[7] The goal of Sci-Hub is to provide free and unrestricted access to all scientific knowledge. https://sci-hub.se/about .

fulfilling global Sustainability Development Goals, management attention should be focused on how to create optimum conditions for levels 2.0 and 3.0.

Sustainability 2.0 uses classic management methods such as mission statements, strategy development processes, implementation planning and key performance indicators. All managers at senior level should master these methods. Nevertheless, Khalid, Malik and Mahmood identify significant deficiencies or gaps at this strategic level in their literature review (Khalid, Malik, and Mahmood 2021). To achieve this level, it is therefore particularly important that sustainability issues are given sufficient attention at senior management level. Schaffer points out that to achieve a triple bottom line, the library director, operations manager or deputy must work in tandem with sustainability managers (Shaffer 2018).

Sustainability 3.0 challenges the library management to step outside its comfort zone. Here, senior management must have the nerve or courage to engage in global goals and strive for bold visions. Library managers are called to give staff space for creativity, to develop new professional and skill profiles, to actively seek out new forms of collaboration that cross borders, to accept diverging opinions, to establish a culture of error tolerance, to create flexible or agile structures, and to engage politically. Stepping outside one's comfort zone is never easy, but following the argument of Dyllick and Muff, it is precisely this quantum leap that is needed to reach Sustainability 3.0. And this Level is required to solve the most urgent societal challenges by 2030 and to counteract the steadily deteriorating state of our planet.

Bibliography

Antonelli, Monika. 2008. 'The Green Library Movement: An Overview and Beyond'. *Electronic Green Journal* 1 (27). https://doi.org/10.5070/G312710757.

Aulisio, George J. 2013. 'Green Libraries Are More Than Just Buildings'. *Electronic Green Journal* 1 (35). https://doi.org/10.5070/G313514058.

Cooperrider, David. 2008. 'Sustainable Innovation'. *BizEd* 7 (4): 32–38.

Dyllick, Thomas, and Katrin Muff. 2016. 'Clarifying the Meaning of Sustainable Business: Introducing a Typology From Business-as-Usual to True Business Sustainability'. *Organization & Environment* 29 (2): 156–74. https://doi.org/10.1177/1086026615575176.

Elkington, John. 2018. '25 Years Ago I Coined the Phrase "Triple Bottom Line." Here's Why It's Time to Rethink It.' *Harvard Business Review*, 25 June 2018. https://hbr.org/2018/06/25-years-ago-i-coined-the-phrase-triple-bottom-line-heres-why-im-giving-up-on-it.

Fahrenkrog, Gabriele, Alexandra Jobmann, and Redaktion Libreas. 2019. 'Radikale Openness – wie Bibliotheken mit Open Educational Resources und Open Access die UN-Agenda 2030 unterstützen könne'. https://doi.org/10.18452/21417.

Hauke, Petra, Karen Latimer, Klaus Ulrich Werner, International Federation of Library Associations and Institutions, and Humboldt-Universität zu Berlin, eds. 2013. *The Green Library: The Challenge of Environment Sustainability = Die Grüne Bibliothek: Ökologische Nachhaltigkeit in Der Praxis*. IFLA Publications 161. Berlin ; Boston: De Gruyter Saur.

Hernon, Peter, and Ellen Altman. 2010. *Assessing Service Quality: Satisfying the Expectations of Library Customers*. American Library Association.

Karioja, Elina. 2013. 'How to Evaluate Libraries' Sustainability? An Approach to an Evaluation Model and Indicators'. In . http://ifla-test.eprints-hosting.org/id/eprint/114/.

Keller, Alice. 2021. 'Nachhaltigkeit 3.0 in Bibliotheken: eine Herausforderung für das Management'. *Bibliothek Forschung und Praxis* 45 (3): 412–20. https://doi.org/10.1515/bfp-2021-0065.

Khalid, Ayesha, Ghulam Farid Malik, and Khalid Mahmood. 2021. 'Sustainable Development Challenges in Libraries: A Systematic Literature Review (2000–2020)'. *The Journal of Academic Librarianship* 47 (3): 102347. https://doi.org/10.1016/j.acalib.2021.102347.

Laloux, Frédéric, and Ken Wilber. 2014. *Reinventing Organizations: A Guide to Creating Organizations Inspired by the next Stage of Human Consciousness*. First edition (revised). Brussels: Nelson Parker.

Marty, Thomas, and Jürgen Küssow. 2021. 'SLSP and Swisscovery – a Swiss Success Story on How to Create a Multilingual, National Library Network'. *ABI Technik* 41 (2): 64–70. https://doi.org/10.1515/abitech-2021-0015.

McGovern, Nancy Y. 2018. 'Radical Collaboration and Research Data Management: An Introduction'. *RLI* 296. https://publications.arl.org/14uvcr7/.

Moran, Barbara B. 2017. 'The Unintended Revolution in Academic Libraries: 1939 to 1989 and Beyond | Moran | College & Research Libraries', April. https://doi.org/10.5860/crl_50_01_25.

Moreno Romero, Ana, Ángel Uruburu, Ajay K. Jain, Manuel Acevedo Ruiz, and Carlos F. Gómez Muñoz. 2020. 'The Path towards Evolutionary—Teal Organizations: A Relationship Trigger on Collaborative Platforms'. *Sustainability* 12 (23): 9817. https://doi.org/10.3390/su12239817.

 doi:10.20944/preprints202212.0150.v1

Schaltegger, Stefan, Markus Beckmann, and Erik G. Hansen. 2013. 'Transdisciplinarity in Corporate Sustainability: Mapping the Field'. *Business Strategy and the Environment* 22 (4): 219–29. https://doi.org/10.1002/bse.1772.

Schneidewind, Uwe. 2014. 'Von der nachhaltigen zur transformativen Hochschule. Perspektiven einer „True University Sustainability"'. *uwf UmweltWirtschaftsForum* 22 (4): 221–25. https://doi.org/10.1007/s00550-014-0314-7.

Schneidewind, Uwe, Mandy Singer-Brodowski, and Karoline Augenstein. 2016. 'Transformative Science for Sustainability Transitions'. In *Handbook on Sustainability Transition and Sustainable Peace*, edited by Hans Günter Brauch, Úrsula Oswald Spring, John Grin, and Jürgen Scheffran, 123–36. Hexagon Series on Human and Environmental Security and Peace. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-43884-9_5.

Shaffer, Gary L. 2018. *Creating the Sustainable Public Library: The Triple Bottom Line Approach*. Santa Barbara, California: Libraries Unlimited, an imprint of ABC-CLIO, LLC.