

MASTER'S THESIS IN LIBRARY AND INFORMATION SCIENCE  
FACULTY OF LIBRARIANSHIP, INFORMATION, EDUCATION AND IT

**E-weeding at Academic Libraries**  
Digital collection management and weeding practices at Swedish  
university libraries

BEATE GRANSTRÖM  
NADIA HÄLLER



UNIVERSITY OF BORÅS

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English title: E-weeding at Academic Libraries: Digital collection management and weeding practices at Swedish university libraries

Authors: Beate Granström, Nadia Hällér

Completed: 2022

Abstract: Weeding is one of the central tasks of collection management at academic libraries but is often not prioritized. Digital collections are constantly growing and soon there will be a need to manage these resources. This master thesis explores the general state of weeding and e-resource weeding to uncover how these practices are understood and enacted at Swedish academic libraries, while also introducing the term e-weeding.

A mixed method study was conducted and both quantitative and qualitative content analysis were performed on policy documents and interview transcripts respectively. Sentiments, opinions and current practices surrounding weeding and e-weeding at Swedish academic libraries were investigated and discussed.

It was observed that most policy documents did not mention practices that could be understood as e-weeding, but some presented guidelines for print weeding. From the interviews, respondents had no consensus around a definition of e-weeding but practices commonly thought of as digital collection management could be tied to this term. In addition, print weeding was considered by respondents as more acute than e-weeding due to the intangible nature of digital resources. Lastly, it was revealed that criteria used for print weeding could sometimes be used for evaluating digital resources, although unique aspects of e-resources need to be considered. Nevertheless, respondents were open to the idea of e-weeding their digital collections in the future.

Keywords: weeding, e-weeding, digital collection management, collection management, policy documents, mixed method study, semi-structured interviews, content analysis

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# 1. Introduction

When imagining a library, one might envision an ancient stone building with lofty ceilings and sweeping bookcases brimming with leather bound volumes illuminated by the ghostly flickering of candlelight. Perhaps even an image of the fabled Library of Alexandria emerges, its papyrus scrolls stuffed with knowledge from all over the world or the works of Confucius intricately engraved on pale stone library slabs in the ancient city of Xi'an in China (Lerner, 2009; Witten et al., 2010). These romanticized historical contrivances of library institutions had given rise to the contemporary associations of a library being a stable, solid and unchanging place with the sole purpose of collecting and preserving as much knowledge as possible.

Ancient acquisitions departments were expected to collect almost all written documents to increase the size of the library, according to a principle from a statement in an early library policy from the Great Library of Alexandria (Witten et al., 2010). Johnson (2009) also echoes the thought of size as a measure of the library's greatness since there was a scarcity of written material in ancient times. Comprehensiveness, preservation and completeness therefore became the guiding principles of libraries. In this way, systematic selection processes for library material were almost unheard of until the end of the 19th century.

Despite the brick and mortar library structures, and the paper, ink and binding artifacts inside, the symbolic value of a library moves far beyond its physical form (see Prosser, 2020). Witten et al. (2010) describe how the concept of the library as primarily a storage and preservation facility evolved over time to refocus the image of the library as centers of information exchange. In fact, within contemporary library settings there is pressure on librarians who are responsible for the collections to reduce the amount of print books to make space for new library functions, according to McAllister and Scherlen (2017). This pressure revolves around for example removing resources and items in collections to make room for new collections and facilities that satisfy the library community's needs.

Removing books from library collections, however, is not purely an administrative task. Both librarians and library users have strong feelings about changes to the library space because it challenges the identity of libraries (Prosser, 2020). If a library is solely regarded as a temple filled with books – what happens when book cases are being decimated and shelves removed to make space for study nooks or meeting areas? Libraries are under scrutiny from external stakeholders and the decision to remove certain books or resources can be regarded as politically charged; the question of censorship could even be raised (see Van der Veer Martens, 2021). At the same time, the management of collections is a foundational part of Library and Information Science (LIS). It is claimed to be the most theoretical and practical part of librarianship in the sense that without careful and conscious collection management a library is indistinguishable from any other community building (Van der Veer Martens, 2021).

## 1.1 Background

The term “collection development” is rooted in academic libraries, where it was proposed as an extension and alternative to simple acquisition strategies (Johnson, 2009). Although the terms collection management and collection development tend to be used synonymously, Johnson (2009) employs the term collection management as an umbrella definition for the maintenance of collections where weeding activities are included. To *weed* is the word most commonly used to refer to the removal of items in a library collection, which is derived from a gardening analogy:

We understand that it is hard to see or appreciate the useful items (lovely blooms) if the shelves (flower beds) are choked with undesirable ones (weeds). Of course, some weeds are charming to look at, even though they choke out desirable or useful plants. (Ward, 2015, p. 5)

Despite the fact that collection management and weeding are considered important library activities, deleting or removing resources are often considered a necessary evil – “the dark side of collection development” (Ward & Aagard, 2008, p. 273). Discarding physical books, or even simply removing them off site or to secondary storage, can be a very emotional task. Students have wept at the sight of empty shelves, librarians have expressed regret at discarding academic journals and vainly tried to rescue titles by stuffing them in their offices, faculty members have demonstrated unwillingness to part with any material from their disciplines, regardless of whether they plan to use them in the future, and community members have dumpster-dived to save a book – irrespective of subject or condition (Prosser, 2020). Even if weeding is undertaken with practical considerations, it risks being the subject of judgment and disagreement both from inside and outside of the library (Van der Veer Martens, 2022).

Because librarians are experts in building collections, they have the knowledge required to maintain those collections, and with that knowledge comes the responsibility of assessing the value of certain resources that may or may not be retained within the collections. Systematic routines are required to make weeding more objective and to alleviate the complicated emotions that might be at play. To this end, some LIS professionals have proposed written collection policy statements (Van der Veer Martens, 2022), such as the American Library Association’s (ALA) Guide for Written Collection Policy Statements (Anderson, 1996). The National Library of Sweden recently made a report investigating the creation of a national framework for weeding which revealed a high interest in national weeding policies among academic libraries (Berglind et al., 2020).

## 1.2 Problem formulation

Academic libraries have had the self image of institutional storehouses for a long time, in part because they had been facilitated with material via gifts and donations and seldom employed their own projects to acquire collections (Johnson, 2009). However, this image is washing away in contemporary library discourse. Although completeness has been a library goal for centuries,

contemporary LIS professionals recognize that these goals need to be balanced with the responsibility of selecting the most appropriate material for the collections and the community needs (Johnson, 2009).

The most common type of academic library is the university library, which has been defined as “a library or library system established, administered, and funded by a university to meet the information, research, and curriculum needs of its students, faculty, and staff” (Okogwu, 2020, p. 2). Rubin (2016) declares that the aims of university libraries are to provide good quality information for their students and faculty in response to their needs. One significant way in which academic libraries fulfill these aims is by the acquisition of digital resources. Downey and Zhang (2020) explain that at contemporary academic libraries, electronic material is acquired to meet the immediate needs of academic users. In addition, the increasing replacement of print materials by electronic resources at academic libraries affects users in such a way that they have become accustomed to having unlimited and remote access to the library’s collections (Evans & Saponaro, 2012). The demand for e-resources at academic libraries therefore has surged. The rise of e-books and technological advancements are now inseparable from reading and information access which has greatly affected physical library spaces and the use of print books at academic libraries (Prosser, 2020).

Since the value of digital material at academic libraries has been established and flourished as the preferred choice of resource format, issues with the management of digital material arose within academic library communities (Johnson, 2009). However, the amount of storage space needed for storing digital material is easy to overlook since e-resources do not seem to take up physical space and do not appear in many standard usage activity reports. Still, it is important to consider long term access and management of digital material now. To extend the gardening analogy: if libraries shovel all their weeds into the compost pile of the digital space, perhaps unwanted weeds might sprout up again in the compost?

Wildemuth (2017) calls upon LIS professionals to not only react to arising problems, but proactively question current practices and try to find ways to improve them. Despite efforts to resolve collection management issues, there is still friction and resistance amongst librarians to perform weeding (see Prosser 2020; Ward, 2015). The authors of this study recognize that it is not sustainable to buy e-resources as substitutes of the same print material as a way to subdue fallout from physical weeding. When libraries remove physical material and obtain electronic versions as substitutes, they risk simply sweeping dust under the rug. If action is not taken to weed e-resources, future generations of librarians will have to manage a massive amount of digital material left behind by librarians today. In itself, the act of weeding e-resources deserves a place at the discussion table. For example, can it be called weeding if it is “only” unsubscribing from an e-journal? Furthermore, there are many unique aspects to digital collection management compared with print collection management that require investigation, for example navigating complicated license agreements and ensuring perpetual access to material provided by commercial

vendors. These issues are still new aspects to librarianship and need to be addressed in order to cement best practices and establish common vocabulary.

This thesis is directed towards Swedish academic libraries. The motivation behind this is threefold. The study's authors have access to and are a part of an academic library environment in their roles as students. The number of academic libraries in Sweden also present a manageable population. Lastly, academic libraries have been dealing with issues surrounding collection management for a long time and are proactive in response to professional issues, as can be exemplified by them having identified and coined the new term of "collection development" (see Johnson, 2009). There is also an active discussion surrounding weeding in Sweden, as can be seen from a report commissioned by the National Library of Sweden, where Swedish academic libraries displayed interest in developing common frameworks for weeding (Berglind et al., 2020). Since the question of print weeding is already alive within the Swedish library discourse, it is opportune to extend the discussions of weeding to encompass digital material as well. In this thesis, the authors coin and introduce the term "e-weeding" to describe the weeding of digital material.

Through a series of semi-structured interviews with various academic library staff on the one hand, and a methodical examination of academic library collection management policy documents on the other, this study reviews the general situation of weeding and e-resource weeding at Swedish academic libraries. An analysis of the definitions, objectives, strategies and sentiments will be conducted to investigate how Swedish academic libraries understand and implement these concepts. The hope is to contribute to future investigations on the topic of digital collection management and e-resource weeding, which is still a budding subject area within the LIS discipline. This study's ambition is also to inspire other researchers and academic libraries to contemplate this sparsely investigated area, to improve digital collection management practices and consider weeding of digital resources.

### **1.3 Purpose and research questions**

The purpose of this study is to gain insight into how weeding practices regarding electronic material are described and enacted at Swedish academic libraries. The study aims to fulfill this purpose by investigating the following research questions:

1. How is weeding and e-weeding represented in current collection management policy documents produced at Swedish academic libraries?
2. What do experiences of professionals working at Swedish academic libraries reveal about the general situation of weeding and e-weeding?
3. What are the similarities and discrepancies between Swedish academic libraries' documented policies and their everyday practices, as described by the interview respondents?

## **2. Literature overview**

This literature overview explores the concepts of collection management, digital collections and policy documents, with a focus on academic libraries. References to previous literature provide insights into how social and technical developments over time have affected collection management at academic libraries. Investigating the purpose and use of policy documents reveals the critical importance of these documents in relation to digital collection management.

### **2.1 Library collection management**

According to Evans and Saponaro (2012), the term collection management reflects all the aspects that constitute collection development and collection maintenance from beginning to end. It entails the controlling and organizing of information with the objective to assist people in their efforts to locate and access information. For centuries, librarians and library users have debated the appropriate criteria for the selection of material during the collection development phase where the aspect of balancing completeness with user wants and needs have been considered (Johnson, 2009). Without careful considerations during material selection, collection management tasks risk becoming haphazard and unfocused in a way that undermines the mission of the library (Okogwu, 2020).

The traditional process of collection management involves several stages, according to Evans and Saponaro (2012), the focus of which lies on identification, acquisition and storage. Albitz et al. (2014) go on to explain that managing collections has shifted away from the traditional focus on these stages over the past 25 years, towards the contemporary focus to provide access to a variety of content irrespective of material type and resource format. In addition, technological innovations, licensing in place of purchasing, funding restrictions and physical space limitations have become central concerns of modern collection management. The accuracy and relevancy of collections need to be considered in a world where e-resources, content delivery and e-journal package deals have taken root in modern approaches to the dissemination of information (Albitz et al., 2014).

### **2.2 Academic libraries and collection management**

At a conference in 1977, academic librarians voiced a need to develop research collections along a solid, conscious, planned and documented approach. They called this “collection development”, to set it apart from ordinary acquisition strategies (Johnson, 2009). During the early 1900’s, the majority of material selection at academic libraries was conducted by faculty members and the libraries were regarded as storage facilities where library goals were focused mainly on supporting teaching instead of promoting learning and research (Johnson, 2009). Furthermore, Albitz et al. (2014) state that the old academic library tradition to accumulate as much material as possible to become the

source of all scholarly knowledge encouraged the concept of all growth being desirable, hence material was rarely removed. In this way, the size of an academic library was used to evaluate its quality – the bigger, the better.

It was only during the late 20th century that the classical model of education started to be replaced by a modern approach to education which enabled professional and technical training within disciplines (Rubin, 2016). Johnson (2009) also attributes the change of attitude to the increasing amount of professionalism developing among librarian practices as well as the need for specialized attention towards collections, since faculty members no longer had time to evaluate the collections by themselves. This change of responsibility for collection management from faculty to librarians resulted in collection aims shifting away from collecting material focused on specific faculty needs and towards material that would facilitate the current and future needs of the institution (Johnson, 2009). In a contemporary Swedish report, written by Berglind et al. (2020), they state that special libraries in Sweden base their collection development on ideas and content, while educational libraries look to user wants and needs.

There are different kinds of academic libraries, which naturally affect their approaches to collection management. Albitz et al. (2014) have categorized academic library collections into five types based on their sizes and purposes:

1. *Comprehensive collections* obtain and preserve as much information as possible within a subject area and serve comprehensive universities that tend to be international in scope. Their aim is to accumulate and grow.
2. *Research collections* provide wide coverage of material and can be comprehensive in certain fields but the focus of collection development is to provide discipline-relevant material. They are reliant on other libraries for access to specialized material. They are more likely to discard out-of-date or rarely used material in comparison to comprehensive collections.
3. *Teaching collections* support institutions that focus on instruction rather than research where weeding practices are conducted so that collections remain focused on current curriculum materials to support the learning needs of students.
4. *Specialized academic libraries* are focused on one subject or field and are part of independent educational institutions. Comprehensive collections within one single discipline are likely to be found here and weeding practices vary based on the subject or field that the institution provides.
5. Lasty, *virtual academic libraries* are new institutions where almost all resources are electronic and weeding practices are almost considered irrelevant. The virtual academic library has affected how other academic libraries think about print collections and contributed to the diminished desire for all types of academic libraries to develop print collections. Weeding practices and collection maintenance have been greatly affected and influenced by the development of virtual academic library practices.

## 2.3 Digital collections within academic libraries

Albitz et al. (2014) explain how the World Wide Web revolutionized the way scholars accessed information and despite the availability of printed resources at academic libraries, the preference today is for electronic formats. Johnson (2009) reaffirms this shift of preference for digital material and explains how academic librarians nowadays are preoccupied with issues related to e-journal pricing, e-publication ventures and canceling subscriptions. These concerns are related to commercial publishers being able to dictate subscription prices, as these publishers had monopolized the market for scholarly journals, which led to substantial economical strain for libraries (Rubin, 2016). Along with licensed material, contemporary academic library users are provided with access to government or philanthropist material as well as free open access e-resources.

In the 1990's, "Big Deals" were starting to be negotiated and it meant that libraries could get access to bundles or packages of e-journals at a substantial discount (Albitz et al., 2014). However, Big Deals come with a lot of restrictions that are disadvantageous to libraries, for example inability for libraries to select individual titles, restrictive conditions of use, prohibition of subscription cancellations and the fact that access can be easily revoked (see Johnson, 2009; Tripathi & Jeevan, 2013). Despite the drawbacks, Big Deals are beneficial for both libraries and publishers so it is important that prices do not inflate beyond reason (Tripathi & Jeevan, 2013). Ward (2015) states that to serve contemporary and future user needs, academic librarians working within collection development have an important role to play in negotiating low cost Big Deals with publishers.

Academic libraries also work together in consortia to negotiate Big Deals. Consortia group members can help each other with issues of collection development to ensure that some resources are kept by only a handful of academic libraries so that others could prioritize and weed collections to suit their specific user groups (Ward, 2015). This sentiment is also highlighted by Berglind et al. (2020), in their study LIS professionals discussed a national framework for weeding that would ensure the preservation of some important books by only a few libraries. However, a shortcoming of libraries joining consortia to negotiate Big Deals is the fact that their resulting collections become very similar (Berglind et al., 2020), which might be an obstacle to providing specialized literature to users.

Stimulated by the rise of self-publications within the scholarly community in the early 21st century, institutional repositories were developed at academic libraries (Rubin, 2016). An institutional repository is defined by Crow (2002) as a type of digital archive where the institution's research output, produced by faculty, research staff, and students, is accessible to internal and external users. Lynch (2003) includes a set of services in her definition of an institutional repository such as bibliometrics, archiving and maintenance. Statistical reports produced based on the use of contents within the repository can be used to justify budgetary allocations (Stanton & Liew, 2011). Individual scholars also benefit from publishing scholarly material in an institutional repository since

their work is available for dissemination and citation beyond the bounds of database paywalls (Ten Holter, 2020).

## **2.4 Collection management policy documents**

Collection management policies are useful for describing library activities such as weeding practices, according to Vunk (2015). Johnson (2009) states that they are useful for reflecting the reality of what collections currently are – serving as plans and setting rules that guide development and maintenance. Evans and Saponaro (2012) claim that if a library is to successfully support the information needs of its community by assisting in locating and accessing information then “there must be procedures, policies, and people in place to carry out the necessary operational steps” (p. 22).

Johnson (2009) presents two main purposes of having a written policy; to inform internal stakeholders of library practices and to protect the library from external pressures, for example when justifying weeding processes to the public. Vnuk (2015) reiterates that written policies provide external protection by providing strong justification for the actions being taken by the library and establishing internal communication to ensure continuity of practice over time. Within the Swedish context, Berglind et al. (2020), also advocate for established frameworks and policies that make it possible to motivate and explain weeding projects to external stakeholders and to internally retain information about collection management practices despite changes in staff members.

Written collection policies have become more widespread within academic libraries, which Johnson (2009) attributes to the tremendous growth of collections and the flourishing research output. Berglind et al. (2020) further explain that in an academic setting, the need for written policies that are anchored in professional practices and facilitate consistency when new institutional leaders such as headmasters are appointed. Furthermore, political fallout from weeding practices can be subdued by referring external users to a written policy document (Johnson, 2009; Vnuk, 2015).

When a collection management policy that highlights the goals and necessity of weeding is publicized it can help alleviate the anxiety users might experience in lieu of the removal of library material (Ward, 2015). Berglind et al. (2020) present an example of the UK Research Reserve weeding project where robust processes and practices were carefully created to justify the removal of library material to avoid controversy. This sentiment is echoed by Van der Veer Martens (2022) who state that criteria for selection and deselection of material as well as their consequences should be available for the library community to view and discuss.

Considering this, it can be considered important to include explicit statements about weeding, cancellation and deselection practices and possibly address the library’s responsibilities in terms of its purpose and its community’s needs within collection management policies (see Johnson, 2009). In addition, the ALA Guide for Written Collection Policy Statements reads: “All libraries are increasingly called upon by their constituents to describe and justify their

collections and the services based on them. Written collection policies provide public documentation of the characteristics of a specific library's collections" (Anderson, 1996, p. vii).

## **2.5 Digital collection management policy documents**

In 2005, there was much debate within academic and research libraries regarding the idea that in digital environments, libraries assemble virtual collections to provide access as opposed to traditional material collection (Kennedy, 2005). Still, despite digital resources being of primary importance for academic library users, the implementation of systematic e-collection management was yet to be observed at academic libraries (Kennedy, 2005). More than 10 years later, the need to formulate and develop policies specifically for electronic material is still notably prevalent (Okogwu & Ekere, 2018).

Johnson (2009) explains that digital material requires their own dedicated management policy that considers negotiating license agreements and other technology related aspects of e-resources. Therefore, print collection management policies cannot be effectively applied to e-resources. Waugh et al. (2015) advocate for the employment of separate policies devoted solely to digital collection management. Since the management of digital material requires awareness of the legal and technical aspects related to e-collections (Witten et al., 2010) digital collection management policy documents would also require provision for these technical and legal aspects.

Challenges with maintaining a digital collection are partly technical and partly non-technical. With the former is the need for constant evaluation of automation facilities, regular and adequate system updates, and with the latter there is great need for skilled people to run operations and librarians trained in the use of modern ICT (Okogwu & Ekere, 2018). The employment of technology at contemporary academic libraries has changed the way library operations are performed. Contemporary librarians need to be aware of legal issues and possess technical knowledge related to the e-resources in addition to having the appropriate background in collection management (Evans & Saponaro, 2012).

License agreements related to paying for access to e-resources controlled by the publisher tend to be surrounded by terms of use that risk hindering library services, such as interlibrary loans (Evans & Saponaro, 2012). There is an inherent conflict with the goals and aims of commercial vendors and libraries, since vendors tend to prefer setting many limitations whereas a library's philosophy is to permit sharing and making resources open to all (Evans & Saponaro, 2012). According to Kennedy (2005), the type of access to e-material provided by publishers can cause problems when libraries need to consider the economic value of digital material that has become irrelevant and obsolete for their patrons. Another aspect of ownership versus access is realized in the question of preservation. Berglind et al. (2020) conducted several workshops with LIS professionals and in their conversations there was

uncertainty surrounding the legality of preserving licensed material at academic libraries. Prosser (2020) states that academic libraries have been debating this issue of ownership versus access for over 20 years.

Waugh et al. (2015) highlight that commercial vendors have control over material that is added, removed and even requested by library patrons since they have not implemented self-service weeding in their license agreements. This service would provide libraries with the independent ability to conduct onsite e-resource administration and management. Evans and Saponaro (2012) list several issues that libraries face from their dependency on e-resource vendors, such as the uncertainty of permanence but also problems with the ability to improve e-services based on library user needs. Tripathi and Jeevan (2013) even describe how providers of databases might give undue emphasis on usage statistics to try and falsely incentivise libraries to continue their journal subscriptions. Many e-resources can be acquired via consortia arrangements where costs are divided among all participating libraries, however the cost of a Big Deal then depends on other libraries' decisions to participate (Evans & Saponaro, 2012).

Kennedy (2005) explains that policy has become more critical than ever for the management of digital resources due to digital resources being more fluid than print collections and controlling e-resources is more intangible and impermanent. Waugh et al. (2015) also argue that all libraries should develop policies for e-material separate from print. Thus, new roles that librarians are required to adopt to manage digital material necessitate the guidance of practices which can be provided via collection management policies, according to Johnson (2009).

## **2.6 Policy documents at academic libraries**

The importance of collection development policies has been emphasized by several LIS researchers (see Berglind et al., 2020; Evans & Saponaro, 2012; Johnson, 2009; Vnuk, 2015; Ward, 2015). Digital collections are also strongly associated with academic libraries (see Albitz et al., 2014; Johnson, 2009; Okogwu, 2020; Ward, 2015) since academic institutions are purveyors and producers of electronic resources. Thus, the need to develop digital management policies, as described by researchers (Evans & Saponaro, 2012; Johnson, 2009; Kennedy, 2005), can be considered a critical factor that academic libraries should consider.

The extent to which the implementation of collection management policies concerning digital resources have been put into practice within contemporary academic library settings can be observed in the literature review *Electronic Resources Collection Development in University Libraries: An Empirical Review of Selected Literature* (Okogwu, 2020). This paper was also preceded by another study written by the same author; *Collection development policies of electronic resources in University Libraries in Southeast Nigeria* (Okogwu & Ekere, 2018).

The 2020 study revealed that the management of digital resources is very much a part of contemporary academic library practices around the world (Okogwu,

2020). Building digital resource collections was indicated as being one of the most important, yet one of the most complicated activities at academic libraries. Despite the use and demand for e-resources, many academic libraries in developing countries found it challenging to provide their users with digital material (Okogwu, 2020). Some of the challenges included the difficulty of determining the quality and subject coverage of a digital resource, issues with license agreements and adequate support from e-resource vendors. Recommendations for librarians to overcome these challenges were to perform consistent evaluation of technological equipment and have regular system upgrades while providing both suitably skilled man-power. In addition, they should provide periodic training for the existing library staff with the use of modern information technology (Okogwu, 2020).

To sum up, Okogwu's (2020) review revealed that very few empirical studies had been written about digital collection management practices with respect to the types of e-resources that could possibly make up a digital collection. There were equally as few discussions about digital resource policies, the evaluation of e-resources as well as the challenges of digital collection development and management (Okogwu, 2020).

In a Swedish context, national frameworks for weeding had been investigated by a group of LIS professionals appointed by the National Library of Sweden and the results were presented in the 2020 report *Allt åt alla – för alltid* (Berglind et al., 2020).<sup>1</sup> The aim of the project was to work closely with the topic of weeding at academic libraries and get opinions and insights from the academic library community regarding proposed guidelines for weeding. Great optimistic interest for a unified Swedish academic library weeding policy was exhibited (Berglind et al., 2020). The advantages of such a model are the ability to weed duplicates locally, the preservation plan for long term access and a strong centralized governance and organization. On the other hand, the disadvantages involve issues with developing a long term unified front, issues with sustainability and issues with common funding and organization. In addition, when establishing national coordination between libraries it is important to consider the context of both large university libraries with extensive collections as well as smaller special libraries with a specific subject focus (Berglind et al., 2020).

According to Berglind et al. (2020), certain conditions need to be met before a truly national guideline for weeding can come to fruition. The national library catalog Libris needs to be continually updated for weeding to be conducted safely based upon its metadata. There is also a necessity for the National Library to take responsibility in matters of sustainability and stability; "Någon måste äga frågan och vara ansvarig" (Berglind et al., 2020, p. 29).<sup>2</sup> Today, the mission of the National Library is to support and coordinate library efforts in Sweden, which could come to include matters of preservation and weeding in the future (Berglind et al., 2020).

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<sup>1</sup> "For everyone – for ever."

<sup>2</sup> "Someone has to own the question and be responsible."

In summation, previous literature indicates that more research and development within digital collection management still needs to be done since digital resources have adopted a prominent place within contemporary academic library settings (see Albitz et al., 2014; Berglind et al., 2020; Johnson, 2009; Okogwu & Ekere, 2018; Okogwu, 2020; Ward, 2015).

### 3. Theoretical framework: Weeding

This chapter provides a reflection into previous literature on the subject of weeding in view of providing a theoretical framework for this study's research area. However, the views presented here do not directly reflect any definitive opinions on weeding held by the authors of this study. In order to be able to reflect on and analyze the phenomena of weeding from multiple standpoints, different views and opinions are included. The aim is to present the situation as it exists in earlier literature and as it exists in contemporary literature. The literature will be employed in the analysis and discussion chapters of this thesis to make comparisons and draw conclusions about weeding and digital weeding at Swedish academic libraries.

The lack of sufficient literature, case studies, research studies, guidelines and reports on digital weeding necessitates the exploration of digital weeding from the background of print weeding. By comprehensively examining print weeding, a solid framework for discussing digital weeding is established. Any available accounts of weeding digital material is of course included and highlighted, although it is sparsely found among existing weeding literature.

In addition, it is important to note that the digital collections discussed in this section are not uniform in nature. Digital resources can be purchased directly from the publisher, accessed through license agreements with vendors or acquired via Big Deals negotiated by consortia. The library can have perpetual access to resources or choose a subscription model where users are cut off from the material if the subscription is ended. A digital collection can consist of a combination of all these alternatives. The goal of this study is not to define what a digital collection is but rather highlight the unique aspects these matters have on digital collection management and weeding.

#### 3.1 Definitions of weeding

Stanley Slote has often been referenced by contemporary authors and researchers who discuss weeding (see Evans & Sapanaro, 2012; McAllister & Scherlen, 2017; Ward, 2015, Waugh et al., 2015) which positions him as a foundational branch within the flowering field of weeding practices. Slote (1997) is even referred to by the *Online Dictionary for Library and Information Science* (Reitz, 2013) for further reading on the topic of weeding criteria. By Slote's (1997) definition, weeding is simply considered the removal of books from a collection that do not have a clear purpose.

Johnson (2009) describes weeding as the process of resource removal from an active collection for withdrawal or transfer where weeding criteria should mirror acquisition criteria. In contrast to Johnson's (2009) definition, Albitz et al. (2014) describe weeding as the intentional and permanent removal of material from print library collections and not the transfer of material to other collections. Transfer indicated that material still remained part of the library's collections and therefore, transferring material was not a weeding process. In addition, damaged or lost material should not be considered part of weeding either since weeding should be based on intentional decisions to exclude

certain material within a collection and not a result of chance (Albitz. et al., 2014). Likewise, Evans and Saponaro (2012) regard the process of weeding as selection in reverse and the permanent withdrawal of material; “when a library decides to withdraw an item, it will dispose of the item (by selling it, giving it away, or even discarding it)” (p. 24). Waugh et al. (2015), employ the definition of weeding from the *Online Dictionary for Library and Information Science* (Reitz, 2013):

The process of examining items in a library collection title by title to identify for permanent withdrawal those that meet pre-established weeding criteria, especially when space in the stacks is limited. Public libraries usually weed routinely on the basis of circulation. In academic libraries, weeding is done less frequently, usually only when the shelves become overcrowded, in anticipation of a move or an accreditation review, or when a significant change occurs in curriculum, such as the elimination of a major. Weeding should be undertaken judiciously because out of print titles can be difficult to replace.

Evans and Saponaro (2012) discuss several terms used to describe the weeding process, such as deselection, deaccessioning and “stock relegation”. Ward (2015) uses “rightsizing” as an alternative to negative terms such as weeding, withdrawing, discarding, deselecting and deaccessioning. By using rightsizing, Ward (2015) aspires to indicate the validity, necessity and respectability of the withdrawal process which have been neglected because of fear and doubt built up by the use of sour terms. More on language and its connotations can be read in section 3.3 Weeding sentiments.

## **3.2 Weeding objectives**

Slote (1997), Johnson (2009) and Van der Veer Martens (2022) assert that user satisfaction and usage increases when weeding is conducted as a means to assure continuous collection quality. Vnuk (2015) reiterates that weeding enables the ability to free up shelf space, improving collection appearances as well as expediting patrons’ abilities to browse collections. The removal of outdated material allows newer material to be seen (Vnuk, 2015; Waugh et al., 2015). According to Evans and Saponaro (2012), it is justifiable to weed obsolete material since “all resources have a finite period of high use, or even useful, lifespan” (p. 24).

Slote (1997) indicates that the objective of improving book usage is facilitated by maintaining a community relevant core collection and a broader non-core collection that can be subject to weeding. Ward (2015) further explains that maintaining a core and a non-core collection is prevalent among academic libraries as it is in alignment with their objectives to retain relevant and unique local items instead of material with low to no usage – this material can be accessed via interlibrary loans.

Weeding additionally permits librarians to get to know their collections. Librarians are able to see directly what material is in disrepair, what is in use and what needs to be updated (Vnuk, 2015). Therefore, weeding should be a conscientious and policy consistent process, sensitive to users and any consortia commitments where careful planning, staffing considerations and

user engagement should be considered (Johnson, 2009). In addition, digital material such as e-book collections should also be given equal priority for weeding as print collections where similar print weeding criteria, such as usage, should be applied (Johnson, 2009).

Vnuk (2015) suggests to conduct weeding continuously throughout the year, since it suppress patron uproar by removing in gradual measures instead of removing a large number of material at a time. Slote (1997) also recommends the practice of regular weeding to ensure that the collections do not become obsolete. However, in practice libraries rarely conducted weeding projects and thus, large amounts of unused material were unnecessarily retained (Slote, 1997).

By aiming to purge outdated material, the library is able to fulfill “the very core of the librarian’s professional responsibility to offer patrons the very best information possible” (Vnuk, 2015, p. 2). The sentiment is echoed by Berglind et al. (2020), who state that weeding is about looking after the library users and making sure their information needs are satisfied. Vnuk (2015) further states that the library cannot be seen as a museum and should not become a warehouse of unused materials.

### **3.3 Weeding sentiments**

Over the years, emotional sentiment has been attached to the removal and discarding of books. Librarians working with collection management and weeding have been considered as working with the “dark side” of librarianship (see Ward & Aagard, 2008). Vnuk (2015) explains that just the mention of weeding can be disheartening to librarians and Slote (1997) states that librarians are reluctant to weed as they do not want to destroy human heritage. Johnson (2009) highlights the displeasure of librarians towards weeding by listing the negative terms associated with the practice such as “pruning, thinning, culling, deselection, deaccession, relegation, deacquisition, retirement, reverse selection, negative selection, and book stock control” (p. 151). As a result of the negativity, Slote (1997) postulated that it was uncommon to encounter practicing librarians who were satisfied with the state of their collections. In a Swedish context, “gallring” might be considered a fairly neutral word, however the National Library discourages its use and instead premier phrasing it in terms of effectivizing the management of physical collections (Berglind et al., 2020).

Slote (1997) attributes the origin of these sentiments to historical catastrophes such as the ravages of barbarians, the Dark Ages and crumbling civilizations that greatly reduced collections at the Library of Alexandria. Vnuk (2015) presents more recent weeding “horror stories” that caused emotional uproar among librarians – material being accidentally discarded and rare items lost or material being removed without proper guidelines or direction such that resource usage had not been considered. The identity of librarians as collectors are deeply rooted in the profession and McAllister and Scherlen (2017) reference an instance of librarians being thought of as “savers, preservers, and defenders of the written word” (p. 82). This is naturally in conflict with the task

of weeding and there might be the feeling that librarians are failing in their responsibility as keepers of collective knowledge (see Prosser, 2020).

Library patrons are also known to have strong opinions about the removal of items from library collections (see Slote, 1997). Prosser (2020) writes that weeding is an emotional process for patrons since they are quick to draw conclusions about the library participating in “book burning” when they notice the absence of books in the library space. The notion of “modern-day book burning” has also been raised by Vnuk (2015, p. 70) as a reaction that patrons adopt when they become aware of weeding at a library. According to Prosser (2020), the transfer of print material into digital collections is also considered an alarming activity for library users because the physical spaces, where collections can be seen, embody the library’s identity. In addition, Albitz et al., (2014) explain that irrespective of how often material has been used at the library, even university faculty users will also display alarm. Thus, when libraries are drastically altered it creates social anxiety and fertilizes the debate about the perceived uncertain future of libraries (Prosser, 2020).

Ward (2015) explains that in general there will always be people who oppose the permanent removal of material from an academic library’s collection irrespective of how outdated, redundant or unused the conditions of material are. Still, researchers like Van der Veer Martens (2022) claim that academic librarians tend to be more open to debating the merits of weeding projects, compared with public librarians, and are more aware of the need to engage their stakeholders and user communities in the process. More on the topic of collection management at academic libraries can be found in section 3.5 Weeding within academic libraries.

In summation, LIS researchers are divided on the matter of weeding sentiments. On the one hand, researchers like Prosser (2020) claim that attachment to print material goes beyond the utility of the contents and symbolizes a nostalgic definition of a library, in addition to being a representation of the shared values and attitudes of its communities. On the other hand, researchers such as Vnuk (2015) claim that it is not the physical formats that users get attached to but rather the content itself, and in some cases even the authors. Evans and Saponaro (2012) as well as Albitz et al. (2014) state that the transfer of weeded print resources into an electronic format is a solution to resolving these divided sentiments.

### **3.4 Quantitative versus qualitative weeding approaches**

Both Evans and Saponaro (2012) and Ward (2015) indicate that there are two primary ways of approaching weeding; the first could be described as scientific and focuses on quantitative measures, whereas the second could be called non-scientific and utilizes qualitative measures. Up until the 1970’s, qualitative approaches to acquisition and retention were emphasized in library selection, for example the magnitude of the book’s potential audience and the value of its content (Van der Veer Martens, 2022). However, after excruciating economic impacts affected library budgets, a need for national library standards emerged and the focus shifted towards quantitative measures and circulation statistics.

Thus, metrics of obsolescence became the measuring sticks against which library collections were assessed (Van der Veer Martens, 2022).

The quantitative approach to weeding is seemingly cemented in the library landscape since the LIS definition of “collection management” specifically names weeding a quantitative approach, using statistical measures and cost-benefit analysis (Reitz, 2013). A primarily quantitative weeding approach has also been put forward and championed by Slote (1997). He considered it a canopy solution to issues such as public displeasure, intellectual attachments to material, time constraints for library staff and considerations about the quality of the library (Slote, 1997).

Slote (1997) suggests approaching quantitative weeding by identifying variables that describe current library use. One of the most discussed, studied and applied variable for studying use is shelf-time period, i.e. the “length of time a volume remains in the library between successive uses or the number of uses in a given period of time” (Slote, 1997, p. 51). In this way, Slote (1997) advocates for the principle that past use determines future use, but he also acknowledges that this variable could be employed in tandem with subjective criteria. The other key variable put forth by Slote (1997) is the determination of “the age of a volume” (p. 51). Print resources are withdrawn from a collection based on the copyright date, imprint date, date of acquisition, date of publication or another significant date. Material within collections should be considered independently and not as a group so that newer editions of volumes are selected irrespective of the dates of volumes within the series (Slote, 1997).

Agreeing with Slote, Van der Veer Martens (2022) upholds the premise that quantitative approaches are most effective. Waugh et al. (2015) also advocate for the “Slote method” with shelf-time periods as a key principle to establish dates for which weeding can be determined. Similarly, Evans and Saponaro (2012) claim that statistical measures have proven to provide more accurate determinations of a book’s value in comparison to subjective judgements made by single professionals, reiterating that past use is the best predictor of future use. The suggested shelf-time period differs – Evans and Saponaro (2012) suggest five years whereas Slote (1997) recommends one year or more. Based on current research into e-book usage, Downey and Zhang (2020), agree that at least 12 months should pass before evaluation.

Slote’s (1997) disapproval of qualitative approaches to weeding were attributed to the ideas that these approaches did not facilitate the ability to predict future usage as they tend to be based on vague rules that are difficult to evaluate, that librarians cannot be expected to read every book and that it is unreasonable to assume librarians know every single aspect of their communities’ needs. Van der Veer Martens (2022) also highlights the fact that subjective judgements risk not reflecting community needs and therefore circulation statistics should be considered more reliable. Furthermore, supplementing quantitative approaches with a qualitative approach would entail an ineffective interference of the quantitative approach (Van der Veer Martens, 2022). Evans and Saponaro (2012) support this argument, explaining that the variations in individual judgements used for qualitative approaches hinder effective weeding practices

and that usage data can achieve almost the same outcomes as specialists but at much faster and cheaper rates.

Despite researchers discrediting a qualitative approach to weeding, academic libraries today have good reasons for considering qualitative aspects (Ward, 2015). The employment of primarily quantitative measures can have negative consequences for certain book reliant disciplines within the humanities (McAllister & Scherlen, 2017). A qualitative approach to weeding might take longer and involve more people, in contrast to the quantitative approach, but involving subject experts means avoiding the risk of weeding valuable material (McAllister & Scherlen, 2017) which is a huge concern for librarians. Another averted risk is losing important scientific publications when individual libraries only look at their own usage statistics and do not consider the national implications of their actions (Berglind et al., 2020).

Johnson (2009) advocates for a combination of quantitative and qualitative approaches where one complements the other. Johnson (2009) and Vnuk (2015) refer to and recommend the Continuous Review Evaluation and Weeding (CREW) method that applies both quantitative and qualitative criteria for evaluation. In *CREW: A Weeding Manual for Modern Libraries*, Larson and Boon (2012) present the process of continuous review, evaluation and weeding as an attempt “to describe clearly, practically, and in a step-by-step fashion a now tried-and-true method of carrying out the five processes of ‘reverse selection:’ inventory, collection evaluation, collection maintenance, weeding, and discarding” (p. 7). The adoption of CREW, according to Larson and Boon (2012), entails that weeding has been made a part of the library’s policy, is conducted consistently and has organized systematic procedures for the identification of candidates for weeding.

The CREW formula consists of three parts (Larson & Boon, 2012). The first two quantitative factors are based on Slote’s (1997) age of material and shelf-time criteria, while the third aspect involves qualitative factors based on considerations for subjective negative factors summed up in the acronym MUSTIE; Misleading, Ugly, Superseded, Trivial, Irrelevant and found Elsewhere. Misleading material entails outdated and inaccurate material whereas Ugly refers to material that is worn out physically. Superseded indicates material where newer editions are available. Trivial describes material that was once popular but has lost its appeal. Irrelevant refers to material that is of no interest to the community anymore. Elsewhere indicates that material may be obtained from other sources such as via interlibrary loans (Larson & Boon, 2012).

### **3.5 Weeding within academic libraries**

According to Albitz et al. (2014), weeding is rarely done at academic libraries because of the idea that “collection development was associated with collection building, constantly accumulating and never deleting” (p. 59). Slote (1997) even points out that university libraries considered themselves repositories of national and human heritage such that weeding could not be applied to them. Prosser (2020) explains that even today librarians and academic patrons have

strong feelings about the changes happening at the library, placing academic libraries at the center of debates regarding collections: print versus online and repositories versus access points. Nevertheless, all the traditional weeding objectives described in section 3.2 Weeding objectives are also applicable to academic libraries; they weed to make room for new material as well as removing duplicates and outdated material (see McAllister & Scherlen, 2017).

The motivation behind weeding at academic libraries has been described as different from those of public, school and special libraries (Evans & Saponaro, 2012). Academic libraries conduct weeding projects so as to identify material that should be moved into less costly storage spaces (Evans & Saponaro, 2012) and weeding motivations spring from policy decisions, space and obsolescence of formats (Albitz et al., 2014). Ward's (2015) proposal to rightsize academic collections means that academic librarians ought to shape their collections optimally to suit their current constituents, with appropriate and usable content as well as efficient services. In Sweden, special libraries have been found to weed restrictively within their subject areas whereas academic libraries weed when material has low use statistics and regard their primary responsibility as aligned with their institution's mission rather than considering a national library perspective (Berglind et al., 2020). Still, according to Albitz et al. (2014) weeding projects at academic libraries are considered low-priority activities and they recommend that serious and systematic methods should be adopted as the benefits of weeding are widely acknowledged.

Johnson (2009) explains that large academic and research libraries that aim to be comprehensive prefer transferring outdated or less relevant material to storage during weeding rather than removing them entirely. In Sweden, a centralized second storage space was discussed amongst academic libraries, but it never came into being (Berglind et al., 2020). A recommendation from Johnson (2009) is that small academic libraries with centralized objectives should focus their collections on undergraduate resources and reduce the pressure to retain everything by providing access to e-journals and interlibrary loan possibilities. A national framework that guides and supports individual libraries with weeding decisions would also lighten the burden of keeping outdated material out of fear that the last copy would be removed (Berglind et al., 2020).

The one-size-fits-all principle is not applicable to academic libraries, according to McAllister and Scherlen (2017) as well as Berglind et al. (2020). Berglind et al. (2020) postulate that although print material is seldom used within technology oriented disciplines, researchers within other disciplines prefer it. McAllister and Scherlen (2017) propose a discipline differentiated approach with qualitative evaluation for humanities disciplines and quantitative aspects for science disciplines. Evans and Saponaro (2012) recommend the Slote method as a starting point for developing guidelines for all types of libraries, including academic libraries. In addition, academic library weeding projects can employ the expertise of faculty members to perform final reviews, ensuring that no important resources are being relocated or discarded (see McAllister & Scherlen, 2017; Reitz, 2013).

Other recommendations for academic library weeding strategies include the weeding of non-core collections (Ward, 2015) and the weeding of print bound journals where e-journals are accessible (Albitz et al., 2014). Berglind et al. (2020) however warn that as copyright laws and restrictions might make access to non-swedish scientific publications hard to obtain, Swedish academic libraries must take care when weeding those materials. In addition, both Ward (2015) and Albitz et al. (2014) recommend the retention of materials created at the institution such as yearbooks and campus newspapers.

When it comes to the weeding of digital material, this practice was considered almost irrelevant by Albitz et al. (2014). Ward (2015) even suggests that withdrawals of print resources can be resolved by providing digital access to the material instead, indicating that extending the e-collections is a solution to the weeding of print material. Still, Larson and Boon (2012) explain that with the ever growing e-book collections, over time digital material will come to require critical management and weeding practices that are as important as those employed for managing physical material. Downey and Zhang (2020) also discuss the weeding of e-collections in light of their exploration of a demand-driven acquisition (DDA) model for e-resources. They postulated that e-book weeding practices within academic libraries were an important area of future investigation where the discovery period for DDA e-books should be a factor for e-resource weeding policies (Downey & Zhang, 2020).

The topic of weeding of e-books was upheld and discussed in a Swedish context at Stockholm University's National Conference in Library and Collection Management in 2020. A librarian from Malmö University Library held a presentation centered around how a weeding project for e-books could be conducted, exemplifying with a case from their own library (Tengstam, February 2020). Although the weeding project under question ended up not being executed, it would have acted as a means to exercise more control over their collections and minimize the stress of managing a collection that had low usage and was economically burdensome to maintain (Tengstam, February 2020). Similarly to this thesis, Tengstam (February 2020) also referenced Waugh et al. (2015) as one of the few available sources of information regarding digital weeding.

## 4. Analytical framework

In the literature overview, the historic and contemporary views on weeding practices at both general and academic libraries that have influenced digital weeding practices have been described. However, the focus of this thesis is the weeding of digital material at academic libraries – a subject that turned out to be a challenge to find within existing literature. Therefore, attention and care was put into painting the subject area of weeding with a broad brush in order to facilitate this study's authors to collate material on digital weeding by summarizing previous conceptions of traditional print weeding and develop an analytical framework.

Academic libraries have been described as places where research and information is produced and acquired, both in terms of license agreements with commercial vendors and in institutional repositories where resource formats are primarily digital (Albitz et al, 2014; Crow, 2002; Johnson, 2009; Rubin, 2016; Tripathi & Jeevan, 2013). The shift in collection management practices towards the aim to provide accessibility (Albitz et al., 2014) and the change in the academic library tradition from storage facilities to creators and disseminators of material (Johnson, 2009; Rubin, 2016) allowed for e-materials to take root in the academic library. E-resources have been defined as physical material converted into digital format or digitally born material created using some form of technology (Evans & Saponaro, 2012). This thesis regards e-material as a plethora of materials and formats; academic resources that have been purchased or licensed via consortia or Big Deals, as well as material produced at the academic institution in digital format.

Weeding could either be understood as the permanent removal of material from a collection (Albitz et al. 2014; Evans & Saponaro, 2012; Reitz, 2013) or the removal of material from an active collection for transfer, storage or disposal considerations (Johnson, 2009; Slote 1997). The definition of weeding has become a central concern for the management of the fast growing crop of e-material. According to Tengstam (February 2020), Malmö University Library's definition of weeding of digital material is the complete removal of the metadata from the system, along with the deactivation of the same title on a national level such that any type of search would not lead to the discovery of the resource. It can be observed that the shared weeding objective of promoting usage by the removal of outdated and irrelevant content is echoed by earlier researchers (Johnson, 2009; Slote, 1997; Vnuk, 2015; Ward, 2015). Tengstam (February 2020) also highlights digital weeding goals such as having more control over collections, minimizing the stress of unnecessary work as well as improving collection quality and user experience.

At the same time, researchers and LIS professionals reinforce the fact that the practices of weeding e-resources is considerably understudied (Downey & Zhang, 2020; Larson & Boon, 2012; Tengstam, February 2020), whereas some claim that the topic of managing e-collections is still under contention (Albitz et al., 2014; Johnson, 2009; Ward, 2015). A literature review of modern academic libraries around the world revealed that many international academic libraries that provide e-collections either do not have or do not implement

digital collection management policies (Okogwu, 2020). The most current report that aims towards investigating a national weeding policy in Sweden only mentions preserving and managing digital material in passing with no further discussion (Berglind et al., 2020). However, the presentation on the weeding of e-books given by Tengstam (February 2020) at Stockholm's University Library's conference aimed at encouraging other Swedish university libraries to consider the systematic weeding of e-books. Weeding criteria for e-books mentioned were the existence of newer editions and the fact that older e-books might contain misleading information. Tengstam (February 2020) explained that one could manipulate discovery systems using MARC to make it easier to identify material for weeding in academic library settings.

In addition, it is clear from traversing the information landscape of collection management literature that a perspective on weeding digital material is greatly lacking. Downey and Zhang (2020) state that there is a great need for more research into weeding practices for academic e-book collections. Larson and Boon (2012) as well as Waugh et al. (2015) attribute the newness of this field as the reason for the lack of literature and research on weeding e-collections and why the corpus of literature on the subject is so small. Larson and Boon (2012) even claim that some librarians are bewildered by the idea of weeding e-collections and Waugh et al. (2015) state that the focus has been on building e-collections which has distracted librarians from considering how the quality of the e-collections will be upheld. As today's libraries most often consist of both physical and electronic material, there is a need for librarians to cultivate their skills with the management of intangible, electronic material (Ward, 2015). According to Larson and Boon (2012), the increasing demand and usage of e-collections will force the optimization of collection management to include the weeding of e-material.

Authors allude to the fact that weeding criteria for digital material differs greatly in contrast to the criteria for physical material (see Evans & Saponaro, 2012; Johnson, 2009; Kennedy, 2005; Witten et al., 2010). Managing digital collections entails handling aspects of e-resource developments such as Big Deals (Albitz et al., 2014; Johnson, 2009; Tripathi & Jeevan, 2013) where the bundles of e-resources can flood search results of a library page with an overgrowth of content that is irrelevant and misleading to their users (Larson & Boon, 2012; Ward, 2015; Waugh et al., 2015). Negotiating license agreements and debating decisions about ownership versus access have therefore become major concerns of modern academic librarians. In addition, consortia agreements and institutional repositories have piled on the requirements for librarians to optimize their e-collection management practices. Furthermore, the suggestion that digital collection development is the solution to weeding print collections by researchers such as Slote (1997), Albitz et al. (2014) and Ward (2015) have contributed to the need for e-collection optimization.

Some researchers recognize the need for uniquely tailored collection management practices for digital collections (Kennedy, 2005; Van der Veer Martens, 2022; Ward, 2015; Waugh et al., 2015). Still, many continue to advocate retaining certain print weeding criteria, such as subject coverage, relevance, usefulness, and currency for the weeding of e-collections (Johnson, 2009; Larson & Boon, 2012; Waugh et al., 2015). Collection management

policies designed to manage e-resources could thus include weeding practices that constitute aspects of both print weeding criteria and electronic weeding criteria – when the latter is eventually constructed.

## 4.1 E-weeding

Amidst the chaos and uncertainty about how to handle e-collections and what to call the processes required for managing these e-resources, the authors of this thesis are coining the term “e-weeding” to denote the practice of weeding digital material. It aims at being a vanguard term that will help shape the way librarians interpret and understand the weeding of e-resources while distinguishing the unique aspects of e-resource management. The hope is that e-weeding may take its place among terms presently used by researchers when discussing digital material such as e-book, e-journal, e-resource, etc. In this way, the practice of e-weeding would be given more precedence and be planted firmly within the discipline of LIS so that e-weeding may be continually investigated in studies beyond this one and also provide a common vocabulary for library professionals working within the field.

Based on the understanding and interpretations of previous literature by the present study’s authors, ideas of what e-weeding could entail have been drawn. The lack of sufficient literature about digital weeding practices specifically within a Swedish context mandated the use of literature from international sources. Table 4.1 is a concatenation of all previous literature that has been mentioned in chapter 2 and 3. In addition, it presents traditional print weeding criteria and other aspects of weeding, most notably from the works by Slote (1997) and Larson and Boon (2012), and these have been reimagined by the thesis author’s to fit the context of e-weeding.

Table 4.1 is meant to be read as a generalized and flexible guide that facilitates discussions and analysis around e-weeding and hopefully presents new aspects that can be considered in future research and practice. It should be noted therefore, that this thesis does not promote one single definition of what e-weeding is or what it should be, but rather reflects how e-weeding can be approached at academic libraries.

**Table 4.1: Criterias and aspects of print weeding reimagined in the context of e-weeding.**

Traditional print weeding criteria	Reimagined in accordance with e-weeding
The mission and goals of the library and/or institution	<p>The mission of the library should guide what material can be considered for e-weeding based on user community and library/institutional goals. For example: Are core collections focused on primarily researchers and students? Are the users heavily reliant on e-material? Do the users need extensive digital collection management to facilitate easy search and retrieval? Is heavy e-weeding needed in order to provide the users with relevant resources?</p> <p>The type of library will also determine what resources are considered for e-weeding. For example: Does the library have the responsibility to preserve specialized material within certain subject areas? Which disciplines use more/less e-resources? Are the users</p>

	used to navigating e-resources? Do they want to retain information through pages or screens?
Qualitative MUSTIE criteria	<p><u>Misleading:</u></p> <ul style="list-style-type: none"> <li>- Out-dated material that is no longer accurate.</li> <li>- For example: subjects such as medicine, law and travel where the rapid changes within the subject that can cause information to become obsolete or even harmful.</li> </ul> <p><u>Ugly:</u></p> <ul style="list-style-type: none"> <li>- Data degradation where the quality of a text file gradually gets corrupted over time as a result of non-critical issues with data storage devices.</li> <li>- Content that cannot be accessed due to broken links.</li> <li>- User experiences with the appeal of outdated interfaces.</li> <li>- For example: the degradation of image pixelation that changes image quality and objects in the image are blurred such that the material is too “ugly” to be useful.</li> </ul> <p><u>Superseded:</u></p> <ul style="list-style-type: none"> <li>- Updated versions of content such that material has been supplanted by newer editions or better versions of the same topic.</li> <li>- File formats can be updated since outdated formats can prevent users from being able to access the files. Digital file migration could be an option. In that case, documents migrated to the new format should be retained and the older formats weeded.</li> <li>- For example: reference materials and guides where newer editions are available.</li> </ul> <p><u>Trivial:</u></p> <ul style="list-style-type: none"> <li>- Material that has short-lived interest such that there is no discernable scientific merit and the material can be constituted as outdated popular culture.</li> <li>- For example: older e-books that contain lists of web pages or addresses that are sure to have changed since publication.</li> </ul> <p><u>Irrelevant:</u></p> <ul style="list-style-type: none"> <li>- Material that is not of interest to or in demand by the library’s community.</li> <li>- For example: self-published e-books that do not circulate.</li> </ul> <p><u>found Elsewhere:</u></p> <ul style="list-style-type: none"> <li>- Material that can be obtained elsewhere, particularly if they can be obtained from sources that incur no cost such as open access platforms.</li> <li>- Important to note is the inability of e-resources to be subject for interlibrary loans.</li> <li>- For example: platforms where e-resources are obtained without cost including open access digital libraries and free e-book sources such as Project Gutenberg.</li> </ul>
Quantitative oriented criteria	<p><u>Age:</u></p> <ul style="list-style-type: none"> <li>- Copyright dates that may have expired.</li> <li>- The amount of years that have passed since the latest copyright date.</li> </ul> <p><u>Shelf-time:</u></p> <ul style="list-style-type: none"> <li>- Obsolete material being included in search results and hinders effective information retrieval.</li> <li>- Recommended statistical shelf-time range without usage has been presented in previous literature as between 1-5 years.</li> </ul>
<b>Unique aspects of digital collection management</b>	<b>Things to consider</b>
License agreements	How many simultaneous users are allowed? How many downloads are included? When unsubscribing, does the library still have access to the material from the period of subscribing? Is there a platform fee? Does the library have access and control over the use statistics?

Big Deal packages and consortia	Access to e-material can be acquired independently but considerations and provision for material that might fall into an e-weeding category should be discussed with the vendor. Consider establishing terms within the consortia so that e-weeding can be conducted appropriately and shared resources are not weeded unnecessarily.
“Weeding” print material by acquiring a digital copy	If material has been removed from a print collection and been replaced with a digital counterpart, the considerations for decisions to remove the print material should also be applied to the same material in the digital format. Does it matter that the content has changed form? What makes it worthy of keeping, since according to the print weeding criteria it ought to be removed from the collections?
Institutional repositories	Material within these collections include unique resources produced at that institution, such as campus newsletters, yearbooks as well as scientific and educational material. Preservation needs to be considered and careful considerations should be taken before e-weeding. Collaboration between library and faculty could help the process since they possess subject expertise.

## 5. Method

In this chapter, the research design is presented along with theoretical and methodological standpoints. Theory is approached from an abductive perspective and adopts a, mostly, interpretivist stance of epistemology. This study takes the ontological position of constructionism and complements it with elements of pragmatism. Section 5.3 argues for the choice of this approach and its position as a suitable response to the study's research questions.

Data collection is conducted using two methods; ten semi-structured, qualitative interviews with library professionals dealing with collection management in their work, and data extracted from 25 academic library policy documents which were different variations of strategic media plans. Analysis methods for the semi-structured interviews and policy documents are detailed in section 5.6. Section 5.7 provides an evaluation of the chosen methods and discusses the limitations of this study while section 5.8 maps out the ethical considerations taken into account.

### 5.1 Epistemology and ontology

The epistemological standpoint of this study is within the bounds of interpretivism, detailing that the study of humans, their institutions and practices requires a different research logic than natural phenomena (see Bryman & Nilsson, 2011). One main area of research in this vein is phenomenology, which entails studying how people within their social interactions interpret, construct and re-interpret social reality (Bäck-Wiklund, 2015). Kvale and Brinkmann (2009) describe how qualitative researchers within phenomenology are interested in understanding social phenomena from the perspective of the participants. Therefore, a central aspect is the ability of researchers to put aside their own preconceptions in an attempt to understand from the individual's perspective how they create meaning in the world they live in (Bryman & Nilsson, 2018). The stance of phenomenological interpretivism means that a value-free approach is adopted in data analysis and personal experiences are set aside in order to ensure neutrality (see Bryman, 2020). Since the phenomenon in question for this study is digital collection management, specifically weeding and e-weeding practices, it follows that this study sought to understand the people dealing with this phenomenon and how they perceive it. The phenomenological standpoint acted as a lens through which the empirical material was analyzed.

Another research tradition within interpretivism is hermeneutics, which is succinctly described by Schmidt (2014) as interpretation. Originally, hermeneutics was the study of understanding and interpreting theological texts (Bryman & Nilsson, 2011) but in recent times it is applied to other kinds of material as well. A hermeneutics researcher wants to investigate the meaning of a text based on the perspective of its creator and therefore takes into account the historical and social context in which the text was produced (Bryman & Nilsson, 2011), something that was also adopted in this thesis. Qualitatively oriented researchers are drawn to hermeneutics since it aligns well with central

ideas of the qualitative research strategy, namely a sensitivity to context and an emphasis on the creators' point of view (Bryman & Nilsson, 2011). The inclusion of history and social context in the scope of analysis permitted the possibility to produce a deeper understanding of the phenomenon. Chapter 2 and 3 of this thesis provides insight into how preceding theory has established existing conceptions of policy documents, collection management and weeding within academic libraries. Through this study's empirical material, the contemporary Swedish perceptions on the objects of interest were explored.

According to Bryman and Nilsson (2011), the adoption of an interpretive approach makes it possible to reach seemingly surprising conclusions that would not have been possible if the researcher had not considered the issue from an external viewpoint. Since the purpose of this study is to gain insight, it was appropriate to have an open mind when conducting data collection and performing analysis because the hope was to identify fortuitous patterns and ideas that would deepen the understanding of the research problem. Therefore, the interpretivist stance taken for this study was in order to understand meaning from academic librarians' points of view based on their context as well as from the history of weeding and digital collection management.

The constructionist approach was employed in this study as its ontological position. This entails the notion that people are able to influence their realities as opposed to cultures and organizations being immovable entities that force or impede people without them having any impact themselves (Bryman & Nilsson, 2011). Reality, according to constructionists, is constantly changing and evolving since it is being reconstructed by the actions, thoughts and feelings of the humans within it. For researchers, this is an invitation to regard social reality as something that is shaped and created by the people within that context and also pay particular attention to the language that describes that context (Bryman & Nilsson, 2011). A constructionist approach led to discussions around how academic librarians shape their reality with respect to how they conduct weeding processes, particularly regarding the management of e-resources.

Although this thesis was grounded in interpretivism and constructionism, which are traditionally associated with a qualitative research approach, the study also incorporated elements of positivism and objectivism since the data collection partly consisted of a quantitative content analysis. Positivism is an epistemological standpoint, claiming amongst other things that knowledge can be acquired and confirmed through the senses (empiricism), theory can generate falsifiable hypotheses and science should be free of values (it should be objective) (Bryman & Nilsson, 2018). According to positivist researchers, phenomenon exists independent of the observations of it and it is important to minimize human interpretation by employing methods such as controlled experiments (Wildemuth, 2016). Positivist science, according to Bergström and Boréus (2018), is supposed to contribute to the establishing of laws in society and thereby creating opportunities for social engineering. However, the positivist stance and its scientific methods have been debated and its suitability for social research has been questioned (Bryman & Nilsson, 2018).

Objectivism, the ontological counterpart to constructionism, claims that social phenomena and their meaning exist independently of humans since social interactions and categorizations are not influenced by people. According to objectivist researchers, organizations and cultures have a compulsory power that affects and impedes on the social actors in them (Bryman & Nilsson, 2018).

To reconcile the different epistemological and ontological underpinnings attributed to qualitative and quantitative research approaches, Wildemuth (2017) puts forward pragmatism as the world view that best supports the use of mixed methods research design. Kvale and Brinkmann (2018) state that pragmatism is prominent in the postmodern era since it postulates that language and knowledge do not copy reality but are tools through which you handle an inconstant world. According to Biesta (2010), pragmatism does not provide the philosophical framework to support the use of combined research approaches but rather presents the perspective that knowledge can be acquired from both objective action and subjective reflection. Thus, people live in a reality where their actions have objective consequences, even though they respond to those actions subjectively. Pragmatism was used in this thesis to accommodate for the use of both quantitative and qualitative research approaches.

The outcomes of pragmatic studies are evaluated through their workability and usefulness in practice, which does not lend itself well to basic research since it might not be possible to evaluate the outcomes of basic research for some time (Wildemuth, 2017). Therefore pragmatic studies are more appropriate for research endeavors that aim towards middle range theories since those are concerned with a limited area, rather than grand theories (see Bryman & Nilsson, 2011). Pragmatism emphasizes the utility values of the ideas and theories that are produced by researchers (Kvale & Brinkmann, 2009). The outcomes of this thesis were expected to further evidence based practice rather than provide theories for basic research regarding the state of the known world, which meant that a pragmatic approach was appropriate.

A more complete picture emerged from looking at digital collection management and policy documents pragmatically from several perspectives, rather than if only one type of material was to have been the basis of analysis. Adopting pragmatism in this thesis meant that different approaches to data collection and analysis were employed depending on material. While this study's authors were aware of the traditional ontological and epistemological standpoints that correspond to each material and analysis method, the most important thing was to create a holistic picture of current practices at Swedish academic libraries regarding digital collection management and weeding. Therefore it was important to maintain a free-thinking approach with respect to the methods.

## **5.2 Methods of reasoning**

Induction is commonly used in qualitative social research and entails that the empirical material generated for the purpose of a study is the basis for new or developed theories concerning the observed phenomenon (Bryman & Nilsson,

2011). Even though formulating new theories based on empirical material is a foundation within the inductive research approach, many social research studies do not generate new theories but rather use the theory as a background and framework (Bryman & Nilsson, 2011). In this study, the theoretical framework was made up of the relevant literature and previous studies in the area (see Bryman & Nilsson, 2011). The theory was both the basis on which methodological decisions were made as well as used for analyzing the empirical material. However, there was no explicit goal of providing a new theory of digital collection management regarding weeding or e-weeding practices. Still, if some elements of a new theory bloomed out of the analysis of empirical material it was highlighted in the results.

Deduction, according to Bryman and Nilsson (2018), is the most common way to regard the relationship between theory and practice within the social sciences. In a deductive approach, the researcher starts with previous knowledge and looks into theories concerning the phenomena of interest before formulating a hypothesis that is going to be empirically tested (Bryman & Nilsson, 2018). Morgan and Wildemuth (2017) summarize deductive reasoning as where the objective is to confirm theories through data analysis and inductive reasoning such that the objective is to develop a theory, seemingly creating a sharp distinction between two extremes at opposite ends of a spectrum. However, in reality this distinction cannot be polarized (Morgan & Wildemuth, 2017). This study was an exploratory effort that, despite having started with investigations into the previous literature on collection management and academic libraries, aimed towards creating a general picture of the phenomena as it stands at the point of examination. This study's authors did not seek to confirm or discard any practice or opinion that came out of the analysis, but wished to give an unbiased account without being normative or prescriptive.

In pragmatic research studies, such as this one, it is typical to employ an abductive reasoning process which moves back and forth between an inductive and a deductive reasoning process (see Morgan, 2007). The aim with abductive reasoning was to address the limitations of inductive and deductive reasoning so as to be able to explain a phenomenon using the most likely explanation (see Bryman, 2020).

It is difficult to make generalizations beyond the bounds of one's own data and develop sure methods to formulate new theories, according to Morgan and Wildemuth (2017). The goal of this study was for information professionals to be able to take part in the results and gain new perspectives which would further their professional practices, i.e. working evidence-based (see Wildemuth, 2017).

### **5.3 Mixed method research design**

In response to the purpose of this study, a mixed method research design was chosen. All methodological decisions were made in order to help answer the research questions, which required the use of two different types of empirical

data as well as two distinct analysis methods. Wildemuth (2017, p. 114) has presented a definition of mixed methods by a group of methodology experts:

Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration.

Even though mixed method studies have been increasingly used in the last decade, within LIS it is rare to combine qualitative and quantitative approaches in the same study (Wildemuth, 2017). By employing this research design, this thesis contributes to LIS research that uses mixed methods.

A quantitative approach could be described as positivist (Lind, 2014) where human interpretations of observations are kept to a minimum to ensure objective, quantitative data (Wildemuth, 2017) which results in generalizable conclusions (Bryman, 2020). A qualitative stance however, suggests that observations cannot be objective (Lind, 2014), social behavior is inherently subjective and constructed by humans (Wildemuth, 2017) and therefore the produced results are meant to deepen understanding of experiences and practices in a given context (Bryman & Nilsson, 2011). These approaches were reconciled in this study by employing pragmatism and abduction, which were described in previous sections.

Both qualitative and quantitative research methods have their particular benefits and drawbacks, and certain disciplines might favor one or the other depending on which aligns more with their epistemological and ontological values. Although there are differences between them, it was important not to disregard their similarities. Qualitative and quantitative research both have the ultimate goal of answering their research questions, collecting large amounts of data that are in need of reduction and analysis, concern themselves with identifying variation in the data and take frequency into account (Bryman & Nilsson, 2011). One therefore should not think of these approaches as deterministically divided and polarized. In practice they are intertwined such that researchers do not have to restrict themselves to one or the other, if their research purpose does not support such a decision.

Bryman and Nilsson (2011) state that combining qualitative and quantitative methods will amplify the strengths and avoid the weaknesses of respective approaches. In addition, Wildemuth (2017) highlights two more reasons for undertaking a mixed method study; one data source might be insufficient to fully answer your research questions, and the use of two data types facilitates confirmation of the findings derived from each data type. It is a type of cross-validation, where the results of a qualitative interview can support or contradict the findings of a quantitative survey or observation, and vice versa. This is also called “triangulation” and in the context of mixed method studies it allows the results of one approach to be validated by the other (Bryman & Nilsson, 2011). By employing a mixed method approach in this study, two perspectives on the same phenomena were provided through qualitative and quantitative data in order to meet the purpose – to gain insight.

Bryman and Nilsson (2018) present nine different ways to classify mixed methods research studies, distinguishing between studies that have emphasis on the qualitative, quantitative or whether they are of equal importance. Based on their classification, this study is within the category of primarily qualitative research since the qualitative part of data collection and analysis was a more prominent part of the results. The quantitative aspect was employed to triangulate the findings of the qualitative aspect. Without the quantitative content analysis of policy documents, this study would still be able to hold its own through the extensive content analysis of the semi-structured interviews, but the same could not be said if the interviews had been omitted.

Based on the research design, this study can be associated with the mixed method designs known as convergent design (see Bryman, 2020; Wildemuth, 2017). The qualitative and quantitative data were collected in parallel, without influencing each other. There was an expectation of cross pollination, where the interpretation of one sequence of interviews might influence the perception of how similar ideas are represented in the policy documents. However, the study's authors decided not to consciously integrate the two in a strategic manner before the combined analysis. In chapter 6. Results and analysis, both data sets are presented together based on the identified high level themes.

## **5.4 Population and sampling**

In answer to this study's research questions, two types of data collection methods were conducted. One part consisted of qualitative material sprung from semi-structured interviews with LIS professionals working with collection management at academic libraries. The respondents did not need to have the title of "librarian". As long as they were working in an academic library with tasks pertaining to acquisition, media or weeding they were eligible to be included in the study. The other part consisted of quantitative material extracted for analysis from policy documents that were variations of different strategic media plans produced at academic libraries, describing their collection management practices. The chosen policy documents all detailed plans, routines or guidelines regarding media acquisition, which also revealed practices surrounding weeding. How the policy documents were titled varied greatly, but as long as the contents dealt with collection development in some capacity they were considered for inclusion.

There are 49 higher education institutions in Sweden (UKÄ, 2022). According to national library statistics there are a total of 39 university libraries in Sweden (see The National Library of Sweden, n.d.). The natural population of 39 academic libraries was used as a complete list, meaning that ten higher education institutions were left out since they apparently did not have libraries.

Since 39 documents were manageable within the bounds of this study, one document from every academic library in Sweden was included in the data collection – there was no need for further sampling measures. Therefore, with regards to the policy documents, the sampling process can be considered a census (Bryman & Nilsson, 2011; Wildemuth, 2017) or a total population

sampling (Statistics how to, 2018). However, this vision ended up not being fully realized since not all academic libraries supplied their policy document.

This study was not designed to be generalizable but rather aimed to gain understanding and provide an overview of the current state of affairs regarding the phenomena of interest. Therefore, purposive sampling was a suitable option for the interviews since, according to Bryman (2020), it is conducted in direct relation to the research questions, permits researchers to deliberately choose participants and facilitates the ability to learn as much as possible about a specific phenomena. Had random sampling been employed, there would have been a risk of the interview respondents working at similar types of libraries and the results would not accurately represent the phenomenon from all perspectives.

Initially, the plan was to employ a type of purposive sampling for the interviews called criterion sampling, in which the sample needed to meet certain criteria to be eligible for inclusion in the study (see Bryman, 2020). The criteria under question were geography, size of community, research/special libraries as well as special preservation mandates from the National Library. The contents of the policy document would also have helped to inform the sampling of interview respondents, as is common within mixed method studies where one data collection can influence the sampling in the other data collection (see Bryman & Nilsson, 2011). However, when reaching out to prospective respondents, the number of positive responses ended up being within the bounds of this study, such that all ten participants that wanted to participate could be included. Thus, there was no requirement to employ the criterion sampling measures – the sampling ended up being more in the realm of convenience based sampling (see Bryman & Nilsson, 2018).

## **5.5 Data collection**

On the 11th of February 2022, all 39 academic libraries were sent an email. The emails were either directed to a key person at the library or to the generic library email address. In this initial email, the authors, the study and its purpose were presented. The emails also requested the libraries to supply copies of their current policy documents regarding collection management. A follow up email was sent to all 39 libraries on the 22nd of February. By then some of the library representatives had already replied and provided their policy documents and the libraries that had not responded yet received a reminder. The follow up email also included a request to participate in an interview. The ten people that confirmed their interest in being interviewed were all included in the study. Two weeks were allocated for conducting interviews such that one interview would be conducted per day and time allotted to make transcriptions immediately.

The number of policy documents provided by library representatives via email ended up being 21. Efforts were made to complement these documents by sweeping the remaining libraries' web sites to locate appropriate policy documents. Using this method, four more policy documents were found and could be included in the analysis. If there were no responses from the library and no policy documents were found on the Web, those libraries were excluded

from the data collection. Thus, the total number of policy documents included in the analysis ended up being 25.

### **5.5.1 Policy documents**

The most recent policy documents from university libraries in Sweden that included information about collection development were required to be able to answer the first research question; “How is weeding and e-weeding represented in current collection management policy documents produced at Swedish academic libraries?”.

Policy documents are products created within specific institutions or organizations to guide their practices (Johnson, 2009; Van der Veer Martens, 2022; Vnuk, 2015). They can either be publicly available or strictly internal (Bryman & Nilsson, 2018). In the case of policy documents concerning weeding, there are interesting discussions surrounding the benefits of making weeding criteria available to the library community (Berglind et al., 2020; Johnson, 2009; Ward, 2015).

Policy documents are expressions of what is happening within an organization, and therefore can be used to understand the institute’s culture, ethics and practices – they constitute “windows” through which researchers can see their reality (Bryman & Nilsson, 2011). However, since the documents have been written by members of an organization that aim to convey their own sentiments, one should expect some underlying purposes to the documents and therefore researchers cannot fully consider an organization’s documents as objective (Bryman & Nilsson, 2018). This ties into the hermeneutic perspective taken in this study of looking at documents through the eyes of the creator.

Despite the fact that documents cannot claim to be complete objective representations of reality, they have a great advantage in research since they are “non-reactive” (see Bryman & Nilsson, 2018). Documents that have been produced within an organization were not formed as a part of research data collection, the creators had no expectation that the documents would be included in research endeavors in the future. Therefore, the policy documents could be considered as having high validity (see Bryman & Nilsson, 2011).

By using a list of academic libraries in Sweden from national library statistics (see The National Library of Sweden, n.d.), an initial search for collection management policies was conducted on the Web. Some institutions had their policies available online, either directly on a webpage or as a downloadable PDF or Word document. In some instances it was difficult to locate the right document, or even the right section of the library web page, since many different variations of titles were used, for example “mediaplan” (media plan), “medieförskaffningspolicy” (media acquisition policy), “mediapolicy” (media policy) and “förvärvspolicy” (acquisition policy).

Bryman and Nilsson (2018) propose four criteria for evaluating documents based on the research of Scott (1990); authenticity, credibility, representativeness and meaning. Documents produced at organizations can often be considered authentic and meaningful, but are likely to suffer from lack of credibility and representativeness (Bryman & Nilsson, 2018). In this study,

measures were taken to ensure credibility since every library was asked to provide the correct document. The policy documents were also spoken about in the interviews, further legitimizing them. Measures were taken to ensure as much representativity as possible; every academic library in Sweden was emailed and asked to contribute their most current policy document. Despite this, encompassing representativity was not achieved since all libraries did not respond. Thus, the data collection therein cannot be considered a total population sample/census (see Bryman & Nilsson, 2011; Statistics how to, 2018; Wildemuth, 2016) since it is not an absolute representation of all 39 university libraries in Sweden, but only 25 of them.

### **5.5.2 Semi-structured interviews**

The second research question in this study is – “What do experiences of professionals working at Swedish academic libraries reveal about the general situation of weeding and e-weeding?”. A qualitative research interview is described by Kvale and Brinkmann (2009) as a means to understand the world from the point of view of the interview participants, to develop meaning from their experiences and as a means to identify their perceived reality. This definition fitted well with the intention this study had to generate deeper understanding and knowledge of the phenomenon.

Interviews as part of data collection for qualitative studies have been named the most used method in social sciences (see Bryman, 2018). Conversations as a means to produce knowledge can be traced back to ancient times, but research interviews have been popularized since the 20th century and are currently firmly established as a central qualitative social science method (Kvale & Brinkmann, 2009). Luo and Wildemuth (2017) highlight three central points of a research interview: its dyadic nature, that the two parties involved play different roles and that it has a clear purpose. Kvale and Brinkmann (2009) boil it down to the fact that research interviews have a structure and a purpose.

This thesis adopted a constructionist, sociocultural view on knowledge, therefore the opinion that there is an objective truth for researchers to discover from simply observing a phenomenon could not be fully considered. Instead, the empirical material that was the result of the interviews was considered as having been collaboratively produced between the two participants. Kvale and Brinkmann (2009) state that knowledge is constructed in the interaction between interviewer and respondent. When interviewing, the researcher and the respondent share a common goal – both parties are aware of the purpose of the conversation and want to contribute to that end (see Luo & Wildemuth, 2017).

This study employed semi-structured interviews to allow the respondent freedom to answer the questions however they saw fit (Bryman & Nilsson, 2018). By choosing semi-structured interviews, the researcher acknowledges that individuals understand the world in different ways and they want to understand the world from the individual’s point of view (Luo & Wildemuth, 2017). This also aligned with the study’s research approach and purpose. Bryman and Nilsson (2018) uphold the flexibility of the interview process in its semi-structured form because it leaves room for the respondents to talk about the things they consider relevant. If the respondents considered an aspect of the

phenomenon as particularly important, then as inductive researchers it was the mission of the interviewers to identify and emphasize them. This was realized in the interviews.

Two interview guides were constructed to establish themes, ground the question in the study's purpose and structure the interview (see Kvale & Brinkmann, 2009), one in English and one in Swedish. An interview guide is especially important where there is more than one researcher conducting interviews as it facilitates consistency between the researchers in their interviewing style (Bryman 2020). There were two researchers in this study and both took equal part in doing interviews. For more discussion about intersubjectivity and intrasubjectivity, see 5.7 Evaluation of methods and study limitations.

In semi-structured interviews it is possible to deviate from the chronology of questions (Lou & Wildemuth, 2017) or to add questions if they are relevant to the phenomenon of interest and tie into the research problem (Bryman & Nilsson, 2018). The interview guides were therefore not strictly followed in any of the interviews, but each interviewer followed their judgment in order to facilitate a constructive and informative discussion. The study's purpose was consistently kept in mind which steered the interviewers to clarify poignant and relevant sentiments during the interview to make analysis easier later on (see Kvale & Brinkmann, 2009).

Still, there are some things to be avoided during semi-structured interviews. Lou and Wildemuth (2017) recommend avoiding questions that risk triggering an emotional response, questions that encompass more than one issue as well as overly complex questions that do not elicit a clear response. Bryman and Nilsson (2018) support this recommendation, adding that leading questions should be avoided and that the researcher should not use unusual or difficult words that can be hard for the participant to understand. For example the use of bureaucratic language or discipline specific lingo should not be employed. Efforts were made to keep within these recommendations during the interviews.

It is recommended to develop and test an interview guide, firstly with experts within the field and then with people that are similar to your intended respondents (Lou & Wildemuth, 2017). However, due to time constraints and practical difficulties, the interview guides were only tested by the thesis authors – each taking turns being interviewer and respondent. This served the purpose of getting comfortable with the interview questions and identifying potential hiccups that needed to be addressed and modified (see Bryman & Nilsson, 2018). One Swedish and one English interview guide were formulated, since five of the interviews were conducted in Swedish upon request of the respondents.

There are many practical concerns with conducting interviews; participants need to be contacted, time for the interview scheduled, appropriate locations identified and recording equipment ready to go (Lou & Wildemuth, 2017). Since the interviews were conducted remotely via Zoom video calls, the study's authors recommended that respondents make sure they are in a calm

environment where they will not be disturbed for the duration of the interview. Using online conference calls to conduct interviews are akin to telephone interviews, but video connections also have the added benefits of visual interaction (Bryman & Nilsson, 2018) which gave the interview a more informal feeling. During the Covid-19 pandemic many librarians started working remotely which also indicated that the prospective respondents would be already comfortable in online video settings. Benefits of doing video call interviews, according to Bryman and Nilsson (2018), are that it saves time on travel, people tend to be more willing to participate and there are less concerns surrounding personal safety. However, the disadvantages have also been pointed out such as the technical issues involved and the tendency that respondents more often fail to arrive (Bryman & Nilsson, 2018). It is also highly important to be aware of the sample bias that exists when online interviews require equipment on the participants end. However for this thesis it was not considered a concern since all participants were currently working at academic libraries where they had access to appropriate ICT equipment.

Ten interviews were conducted – five in Swedish and five in English. Since the two interviewers were most comfortable with their respective native language, the division fell naturally. However, it is important to note that the respondents participating in the English interviews were not native English speakers which could affect their ability to speak their minds with ease. The possible language barriers were not considered a hindrance since all respondents seemed fully able to understand and make themselves understood in English during the interviews.

The interviews ranged in time from 33 minutes to 1 hour 20 minutes. Directly after each interview, aspects of the interview were evaluated such as the environment, the impact on the discussion from the different roles interviewer and respondent had taken as well as if any new angles had sprung up within the discussion, as recommended by Bryman and Nilsson (2018).

The respondents had different functions at their respective libraries. Five of them were titled librarians whereas the other five had additional responsibilities which made them coordinators/managers. The coordinators/managers were included in this study since they had responsibility for a library unit which dealt with media acquisition and collection management in different capacities. The different perspectives of librarians versus coordinators were not further explored in this thesis. For the sake of anonymity, the respondents were not connected to any specific descriptions of their library (for example “Respondent X works as a coordinator on a mid sized educational library in the south of Sweden”), however in this thesis eight of the libraries were considered as comprehensive educational libraries whereas two were considered as specialized within their respective subjects.

To prepare interview material for analysis, transcribing is more often than not done on the entire interview or selecting parts of special interest (Lou & Wildemuth, 2017). For this study, it was decided to transcribe each interview verbatim because the aim was to retain the semantic context and language, despite it resulting in massive amounts of material to work through (see Bryman & Nilsson, 2018). Although word-by-word transcriptions are the best

written equation of audio recordings, Kvale and Brinkmann (2009) state that the act of transcription from spoken word to written is a transformation that creates artificial constructions that are not a good form of either a living conversation nor conforms to written language. However, since the transcriptions constituted the empirical core of the interview data collection (Kvale & Brinkmann, 2009) much time and effort was made to ensure they were as accurate as possible.

Once an interview was completed and the post interview evaluative notes made, the audio files were uploaded to Office 365 Word and using the Dictaphone function a raw transcript was created in a matter of minutes. Shortly afterwards the transcribed text was checked manually in detail against the audio recording captured in Zoom. The corrected transcript was then revised one more time before it was ready for analysis. The authors alternated so the person doing the interview was not responsible for correcting the first draft of the transcript, but rather checked the final version. This ensured that both researchers were equally as familiar with all the material.

Even though the interview transcripts were analyzed in their word-by-word form, slight modifications were made when quotes were presented in chapter 6. The interventions on the quotes are marked with square brackets. The translation from Swedish to English was done in a free manner so as to represent the sentiments rather than to emulate personality or to recreate exact sentence structures. This was done in favor of readability, however it means that the original statements risk being washed out by the researchers' interpretation. This amount of dilution was expected and unfortunately unavoidable in order to communicate the central ideas of the Swedish quotes to English speakers.

## **5.6 Analysis methods**

There were two analysis methods in this study – one for each type of empirical material. A quantitative content analysis was conducted on the policy documents to extract statistical information and a qualitative content analysis was performed on the interview transcripts to reveal themes.

### **5.6.1 Quantitative content analysis**

Conducting content analysis has been readily adopted among LIS researchers since it focuses on features of recorded information (Spurgin & Wildemuth, 2017). Recorded information could encompass many things but in the case of this study it was text in the form of written documents produced at Swedish academic libraries. Content analysis can effectively uncover meaning that is embodied in text when carefully applied with systematic sampling and good coding schemes (Spurgin & Wildemuth, 2017). The study's authors did not look for hidden messages nor seek to extrapolate any meaning from the documents that were not explicitly therein. This data complemented the interviews by incorporating a different kind of material that shined a light on another facet of collection management.

One description of quantitative content analysis is found in Bryman and Nilsson (2018), who state that it is a research technique that deals with an

objective, systematic and quantitative description of the manifest content in communication. Spurgin and Wildemuth (2017) describe manifest content as something that exists within a message which is observable and countable, whereas latent content is conceptual in nature and therefore cannot be directly observed. In this thesis, quantitative content analysis was employed for the end goal of producing an objective, systematic description of manifest content. The content in question was what could be found in the 25 policy documents concerning collection management produced at Swedish academic libraries.

For Boréus and Kohl (2018), quantitative content analysis is a method for counting or measuring aspects in texts based on the assumption that the contents indicate something beyond the texts themselves. It is not only a matter of tallying what is to be found in the documents but also of what is being left out and unsaid (Bryman & Nilsson, 2018). When analyzing the policy documents in this study, it was also of great interest to see what information was not present, for example omission of statements that mention the weeding of e-material. Bryman and Nilsson (2018) also present a question that often guides researchers doing quantitative content analysis: “how is X represented in Y?” (p. 361). This statement acted as the inspiration for the first research question in this thesis and thus guided the quantitative data collection and analysis for the policy documents.

Deciding what to count in a quantitative content analysis is imperative and needs to be in line with the study’s purpose and research questions (Bryman & Nilsson, 2018). Boréus and Kohl (2018) exemplify entities that can be used, naming specific words, expressions, metaphors, arguments or the mentions of a specific phenomenon. The entities counted in this case were statements and sections related to weeding and e-weeding since those were the phenomena of interest.

Coding schedules and coding instructions/manuals are important tools and therefore much care needs to be put into the development of these (Boréus & Kohl, 2018). A coding schedule can be visualized in a table, where each column represents one dimension of the item to be analyzed, and the coding manual instructs how to insert data into the columns by providing the answer options for each of the dimensions (Bryman & Nilsson, 2018). Bryman and Nilsson (2018) point out things to be aware of when constructing a coding schedule and manual: dimensions should be discreet (no overlap), answer options should be exclusive, all encompassing answer options should be available and instructions should be clear (no coding decisions should be left arbitrarily up to individual researchers). The coding schedule and coding manual for this study were revised a few times before they were stable enough to be used (see Spurgin & Wildemuth, 2017). Ideas, concepts and theories from previous research, as have been presented in chapter 2 and 3, influenced this study’s choices of dimensions and answer options (see Spurgin & Wildemuth, 2017) which is in line with the deductive research approach (Bryman & Nilsson, 2018). See Appendix C to view the coding manual used in this study’s quantitative content analysis, inspired by examples provided in Bryman and Nilsson (2018).

Matters of objectivity and systematics are central to quantitative content analysis – the researcher’s personal values should not influence the coding or analysis and rules ought to be followed in a consistent way (Bryman & Nilsson, 2018). Since there were two researchers who conducted the analysis in this thesis, it was very important to make sure the coding scheme and coding manual were rigorous. To ensure consistency and control intersubjectivity, the researchers coded two random policy documents independently whereby any discrepancies between the authors’ understanding of the codes and application of them could be identified and addressed (see Boréus & Kohl, 2018). To account for intrasubjectivity, the remaining policy documents were divided between the authors for independent coding which were “re-coded” by the same person a couple of days later to identify and resolve discrepancies in earlier coding decisions (see Boréus & Kohl, 2018; Bryman & Nilsson, 2018).

The most common way to analyze numerical data produced after coding is to conduct frequency counting, which is the reporting of numbers sprung from the answer options of the different dimensions (Spurgen & Wildemuth, 2017). In this thesis, descriptive statistics were used to reveal patterns or notable features extracted from the policy documents. Descriptive statistics was used to reduce data to a more simple and understandable form, without losing or distorting the information from the raw data (see Agresti, 2018). Furthermore, descriptive statistics permitted the transparent visualization of statistical data to reveal patterns or critical components within a sample that could be identified and described (Wildemuth, 2017). The goal was to identify the extent to which a certain idea or practice was common or uncommon amongst Swedish academic libraries, as presented in the policy documents. Google Sheets was used to create frequency tables as well as the pie charts seen in chapter 6. Results and analysis.

### **5.6.2 Qualitative content analysis**

As previously stated, content analysis is common in LIS research since it deals with features of recorded information and has the potential to uncover meaning in text when applying systematic sampling and good coding schemes (Spurgen & Wildemuth, 2017). Qualitative content analysis aims to uncover patterns, themes and categories in particular settings that can support or develop new theories with importance to social reality (Zhang & Wildemuth, 2017). In this thesis, a qualitative content analysis was conducted on the transcripts of the ten semi-structured interviews with academic library professionals. The interviews were designed with the intention of producing qualitative material, so it follows naturally that the analysis method also reflected this qualitative nature.

Zhang and Wildemuth (2017) describe different approaches to qualitative content analysis, where a directed analysis of content usually validates or extends previous conceptual frameworks and theories. This was in line with what this thesis aimed to accomplish – keeping previous research in mind an inductive approach to theory was taken where an immersion in the material allowed an investigation of emergent themes. The analysis method should reflect the purpose of the study and sometimes a more flexible approach to analysis is warranted (Zhang & Wildemuth, 2016). This study’s choice of a qualitative content analysis for this part of the empirical material allowed the

authors to keep an open mind and gain understanding about social reality in a subjective way while still adhering to scientific methods (see Zhang & Wildemuth, 2017).

A common problem when dealing with qualitative material is the vast amount of material (Bryman & Nilsson, 2018). In the case of this study, the number of pages of transcribed interview text ended up being 141. Kvale and Brinkmann (2009) describes the qualitative researchers' struggle to find a systematic analysis technique for extracting meaning from text, and thereafter declaring that there are no standard methods for qualitative analysis such as in quantitative statistical analysis. Bryman and Nilsson (2018) echo this statement, claiming that there are few established methods for analyzing qualitative data, but also that perhaps it is not desirable that such structured and generic methods should exist. An inductive, interpretivist approach to research demands that researchers are flexible; the goal of analysis does not have to be to produce generalizable findings but to find meaning in context and collaboration with the study participants which in turn requires flexibility and sensitivity to the material.

When doing a qualitative content analysis, researchers condense raw data into categories and themes through inductive reasoning which requires very careful examination and constant comparison (Zhang & Wildemuth, 2017). In this thesis, a generic qualitative content analysis approach consisting of six steps as described by Bryman and Nilsson (2018, p. 707-708) was used as a guideline for the analysis procedure:

1. Read through the material and familiarize yourself with the contents.
2. Conduct open coding.
3. Develop codes into themes, with the goal of reducing the number of codes and put them in a higher abstraction level.
4. Evaluate themes. Decide on etiquettes for themes and subthemes, relating to previous research and relevant theories.
5. Investigate connections between themes and their variations.
6. Note insights from previous steps to construct meaning. Show and motivate the relevancy of each theme to the research questions.

Open coding was conducted on each interview separately, producing as many codes as possible, after which the large index of codes were reviewed together (see Bryman & Nilsson, 2018). Some open codes were discarded since they did not relate to the study's purpose, and the rest were merged into high level themes: academic library descriptions and their user communities, policy documents, library practices related to weeding, digital collection management, print weeding and e-weeding. See Appendix D for further descriptions of the six high level themes.

After identifying and defining the six high level themes, the transcripts were perused jointly by both researchers with a focus on these themes. Sections that were relevant to the themes were color coded with the plan of selecting particularly poignant quotes for the results chapter. The interviews were transcribed verbatim and analyzed in this form, however the quotes presented in chapter 6 have been slightly modified for the sake of readability and marked

with square brackets. Steps five and six of the analysis procedure were the outcomes of the analysis and would be presented in chapter 6.

Bryman and Nilsson (2018) warn the researcher to take care not to equate coding with analysing – even though coding is an important part of analysis there is still the matter of interpreting the codes, focusing on phenomenon of interest, relationships between codes and relating this to the study’s purpose. Trying to find meaning in codes produced from interview transcripts goes beyond simply structuring manifest content but requires deeper and critical interpretations (Kvale & Brinkmann, 2009). Many social researchers conducting qualitative studies are apprehensive when it comes to presenting an analysis sprung from interpretations relating to previous theories due to the fear of taking too much liberty with the original statements from the respondents and accidentally skewing the results (Bryman & Nilsson, 2018). However, the point of qualitative research is not to present seemingly “objective” versions of truth and reality. A constructionist recognizes that knowledge is created in collaboration with other people and is constantly made and remade in social situations (see Bryman & Nilsson, 2018) – therefore, a “subjective” version of this study’s results was the only way to present its qualitative findings.

Kvale and Brinkmann (2009) use the metaphor of the researcher as either a prospector looking for hidden golden nuggets or as a traveler recounting their experiences. In the case of this study, the authors regarded themselves as travelers wandering through the information landscape of the interview participants, asking them questions and investigating their surroundings. The results of this traversing were insights and arguments which were described and explored in this thesis. However, sometimes questions surrounding why people were experiencing and acting as they did within a context was a task for the traveler/researcher to evaluate since they could go beyond the limits of someone’s own self-understanding (Kvale & Brinkmann, 2009).

## **5.7 Evaluation of methods and study limitations**

As can be seen in the beginning sections of this chapter, traditional approaches ascribed to qualitative and quantitative research have been presented and thereafter reimaged to form a practical foundation on which this thesis stands. The authors wrestled with the concepts of induction and deduction, interpretivism and positivism, only to fall into the “middle ground” of abduction and pragmatism. Bryman (2020) acknowledges that the clear cuts of theory often do not translate directly into research since that requires compromises between the ideal and the feasible. Studies are also limited by research design (Byman, 2020) and experience (Kvale & Brinkmann, 2009), and this thesis was no exception.

Attention also needed to be given to the evaluation of mixed methods as a research design. One of the criteria presented by Wildemuth (2017) for evaluating a mixed method’s design quality is to evaluate the inferences drawn from the study. This concerned the suitability of the study design in relation to the purpose, the rigor when implementing the design, the fitting of design components together as well as the adequacy of data analysis and the integration of the two data sets (Wildemuth, 2017). Another criteria for

evaluating a mixed method's study was interpretive rigor, which according to Wildemuth (2017) deals with consistency between the findings and the inferences, consistency with previous theories, agreement of interpretations of the findings between both researchers and study participants, the plausibility of inferences compared to alternative explanations, and lastly the efficacy with which inferences are drawn from the two data sets. To account for these issues the authors of this study dedicated their time to applying themselves to the areas of interest, making sure to be accountable to each other, previous research and the purpose of the study.

Along with design quality and interpretive rigor, there was the question of transparency; researchers need to give clear explanations of why a mixed method is chosen and how it is implemented (Wildemuth, 2017). Transparency is not only needed in this mixed method study but also generally required within the social sciences – it is considered best practice because it enables replicability (Bryman & Nilsson, 2011). Furthermore, it gives an insight into the inner workings of a study and thereby makes it possible for other people to investigate the reliability and validity of the results. Concerns surrounding transparency were resolved via the inclusion of the interview guide and coding manuals in the appendices.

According to Zhang and Wildemuth (2017), the traditional evaluation criterias of positivist research, namely validity, reliability, and objectivity, are unsuitable when conducting interpretivist research. Bryman and Nilsson (2011) extend these criterias to encompass qualitative research; external reliability (replicability), internal reliability (agreement of interpretations within the research team), external validity (generalizability) and internal validity (agreement between observations/interpretations of researchers and the theories that are formulated). This study had as high of an external reliability as could be expected because of the sampling methods, however there are no guarantees that policy documents and respondents would elicit the same responses in the future. The external validity presented an interesting question since qualitative studies are not meant to be generalizable, but this study's intention was to create a general picture of the state of things in Sweden. Both internal reliability and internal validity were high, since this study's authors were in agreement with each other about the results which additionally correlated with previous research.

Another obstacle to overcome was the aspect that there were two researchers/authors of this study. On every level, the authors had to be in full agreement and make decisions together. There was constant dialogue to ensure that the vision for the thesis was unified. When it came to doing data analysis, there was the issue of intersubjectivity (see Boréus & Kohl, 2018; Bryman & Nilsson, 2018). Zhang and Wildemuth (2016) claim that to ensure consistency researchers should use a coding manual where category names, definitions and rules for assigning codes are coherently developed. Then the process of evaluating the coding through the coding manual may be consistent throughout the entire analysis phase, since human coders are subject to fatigue and there is risk of the coder's understanding of categories subtly changing over time (Zhang & Wildemuth, 2016). This recommendation was taken to heart and comprehensive and detailed discussions, double checking and modifying of the

coding schedules and manuals for the quantitative and the qualitative content analysis were conducted until both researchers were satisfied.

Kvale and Brinkmann (2009) also point out that the level of understanding will affect how different researchers interpret responses from the interview guide and suggest a “qualified naivete” approach to eliciting reproducible data. Since both of this study’s authors had equal experience in the area of digital collection management and studied the same literature on the subject, it could be considered that the same level of understanding existed. Still, as Spurgin and Wildemuth (2017) state: “Any time humans observe phenomena or interpret meaning, there is bias” (p. 311).

An advantage however of having two authors was observed when it came to interviewing and transcribing the qualitative data. It was fortuitous to have two pairs of eyes to process and evaluate the material. For example, the “secondary” researcher in the interviews had the opportunity to add questions if the interviewer missed something or discovered a new angle to explore with the respondent. In addition, when transcribing, both researchers employed their strengths in languages as well, getting validation from the English or Swedish native speaker when the audio files were unclear. This was also helpful when translating Swedish quotes into English that were included in chapter 6.

Some of the limitations of this study were with respect to the sample population and triangulation of data during analysis. Even though the authors strived towards a full population sample with the policy documents and a purposive sampling/criterion sampling for the semi-structured interviews, neither data collection method were fully realized. Not every library provided their most recent policy document so not all libraries in the population were included. For the interviews, ten people wanted to participate in the interviews and since the authors wanted to conduct the ten interviews there was no room for further sampling, making it more of a convenience based sampling (see Bryman & Nilsson, 2018).

Another obstacle was with respect to the triangulation process during data analysis. One of the issues with a triangulation approach when doing mixed method studies is the risk of getting conflicting results from the qualitative and quantitative material (Bryman & Nilsson, 2011). In an ideal world, all material would point in the same direction without contradictions or discrepancies but this is seldom the case. To combat the problems of having conflicting results it is necessary to develop a strategy for reconciliation (Wildemuth, 2017). One way in which the conflicts can be resolved is to choose which material is to be considered decisive. Bryman and Nilsson (2011) state that qualitative material has a higher chance of being thought of as decisive since the researcher has closer connections to the people that have been a part of the data collection. However, to arbitrarily deem one type of material as more valid than another is not a scientific procedure. Luckily, there were few problematic discrepancies in this study’s data collection that required determining which type of data that should be considered more valid than the other. Wherever differences occurred it was highlighted as an important part of the results.

## 5.8 Ethical considerations

During the initial research phase in which the topic of weeding was investigated in previous literature, it became clear that it was an act filled with sentiment, both from library users, stakeholders and librarians themselves (see Prosser, 2020). The act of weeding could be construed as censorship or a political act. This aspect was taken into account when deciding to ask LIS professionals to describe their experiences and opinions on these matters in interviews. To reveal persons involved in the data collection or details from their interviews could be construed as a negative reflection on the participants or their libraries. Therefore it was decided that all participants and participating libraries would be anonymized in the final thesis.

Vetenskapsrådet (2011) labels information regarding “race, ethnic origin, political views or religious conviction, or personal data according to Section 21 of the Personal Data Act, including information on judgements in criminal cases” (p. 30-31) as sensitive information and research endeavors handling these need to be ethically reviewed. None of these categories were in question within this study. Personal information was collected through Zoom, creating two automatic files, one with only audio and one with both audio and video. Only the audio recordings were used to make transcriptions. These audio recordings were deleted once the study was completed and thus all personal data was erased. The Dictaphone function in Office 365 Word was used to produce a raw transcription of the interviews, alongside the master audio files captured in Zoom. Since extra audio files were side effects of using the Dictaphone it was pertinent that they were deleted as soon as the transcriptions were completed. There are also ethical considerations regarding how to conduct the transcriptions – if speech irregularities, repetitions and grammatical errors were to be included or not. This study’s authors decided to transcribe the interviews word-for-word and perform analysis using that format, however distinct quotes were edited slightly in chapter 6. Square brackets are used to mark where edits had been made to the respondents original statements. The translations of Swedish quotes into English were not done word-by-word but aimed to represent the general ideas that the quotes disclosed, without emulating personality traits or sentence structures.

Informed consent, confidentiality, consequences and the role of the researcher are presented as central ethical considerations when performing qualitative interviews (Kvale & Brinkmann, 2009). Consent form templates were obtained officially from the University of Borås and modified to suit this study’s data collection of the qualitative material (see Appendix A). In this way, the interview respondents were informed about what elements of the recordings would be used, what information would be included and excluded in the thesis, and the participants’ rights to withdraw consent. In the consent form it is clearly stated that their name and the name of their library would be omitted from the thesis.

The reactive effects are of much importance when it comes to interviewing since there is a risk of people acting in an arranged manner because they know they are being studied (Bryman & Nilsson, 2018). Even though the interview guide was formulated to be as neutral as possible, tone of voice and word

choices could have led the respondents to believe that the interviewer was eliciting certain answers. When transcribing the interviews, some small instances were identified where the respondent seemed to “double back” on an answer or rephrase themselves so as to present their views on weeding in a different way. This could be an indication that the interview guide was not as neutral as hoped and interviewers accidentally presented bias which the respondent wanted to cater to. These nuances were noted in the transcripts but not considered for analysis since it is outside of the study’s scope.

According to the qualitative research tradition there is no such thing as objectivity, whereas in quantitative research one ought to suppress subjective interpretation. In recent times, the stance that social researchers are able to sideline their preconceived notions on their subject matter is questioned and the proposition of theory neutral observations are rarely accepted (Bryman & Nilsson, 2011). Therefore, the study’s authors adopted a reflexive approach to influence their personal beliefs and values. Bryman (2020) describes a reflexive approach as one that accepts that research cannot be value-free and researchers should recognize the impact of their own social location on their choice of research area, research questions, research method, data collection, analysis and interpretation. In order to identify the author’s potential impact on the data collection, notes were made with respect to issues put forth by Bryman (2020) such as the impact of the interviewers’ adopted role and personal characteristics that may have improved or inhibited discussions.

Kvale and Brinkmann (2009) claim that all social research efforts should serve both scientific and human interests. In this study, the goal was to investigate an area of collection management that in previous literature had been considered uncomfortable and unseemly. The hope was that by bringing both positive and negative aspects of weeding into the light it would lessen the stigma that seemed to surround something as simple as the word “weeding”, with its many metaphors and euphemisms (see Johnson, 2009). The goal of the thesis is to serve academic libraries by discussing pressing issues in collection management which might open up new conversations and practices surrounding this domain.

## 6. Results and analysis

In this chapter, the results of both the qualitative semi-structured interviews as well as the quantitative analysis of the policy documents are presented. These are related to previous literature and theoretical frameworks, meaning that analyses are also interspersed in the chapter. The goal is to paint a picture of how things currently stand on subjects such as use of policy documents, collection management and e-weeding.

The sections of this chapter are divided into six themes which correspond to the number of high level themes identified in the qualitative content analysis; academic library descriptions and their user communities, policy documents, library practices related to weeding, digital collection management, print weeding and e-weeding. Quotes from the interviews are included to support arguments and highlight important aspects. English translations of Swedish quotes are presented in footnotes. The results of the quantitative content analysis are presented as pie charts that complement the results of the qualitative interviews. In this manner, a holistic analysis of the recurring themes observed in both the qualitative and quantitative results are conducted.

### 6.1 Academic library descriptions and user communities

Of the 25 policy documents that were included for quantitative content analysis, a majority (18) were deemed to be research libraries (see Figure 6.1), based on the definitions of different types of library collections by Albitz et al. (2014). Research libraries provide wide coverage, aiming towards comprehensiveness in fields that are taught at the institution, but rely on other libraries for specialized material (Albitz et al., 2014). This description corresponds to Berglind et al.'s (2020) description of a "lärosätesbibliotek" since they focus the collections on the institution's own users and rely on national preservation efforts. Two libraries were deemed specialized libraries in the quantitative analysis, meaning the collections are very comprehensive and focused on one subject or field and are independent of educational institutions (Albitz et al., 2014). However, based on the interview respondents, none of the libraries included were fully independent from an educational institution but all had strong connections to their universities.

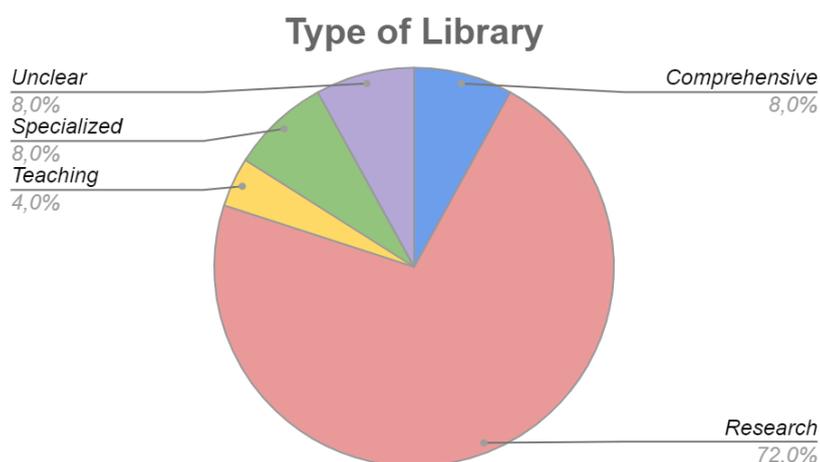


Figure 6.1: Type of Library. The figure shows the different types of libraries as presented in the policy documents.

The user community was primarily described by all interview respondents in terms of students, teachers and faculty, as well as the general public and in one case students from other institutions. The general public were described as “[a] smaller percentage of users” (R5) whereas students, faculty and researchers were called the primary users (R4).

[T]here are students of course, undergraduate students and postgraduate students and doctoral students so. And then we have the professors and yeah, faculty. [...] [T]he library is open to everyone, so even the public can come in there even though they are not part of the university in any way. (R9)

This echoes what both Okogwu (2020) and Rubin (2016) have declared to be the purpose of the academic library – to serve the needs of students and faculty, although general public and other students were excluded in their declarations. To include these user groups might be unique to Swedish academic libraries, in that everyone is welcome to use the library. At the same time, one respondent described a library system function that distinguished types of users, meaning that the library could regulate the rights and access for different user types. Perhaps even though all are welcome, users with connections to the university are still given the most priority.

[D]et är ju studenter och forskare där som dominerar och är den viktigaste användargruppen.<sup>3</sup> (R3)

The users were also affected by the Covid-19 pandemic since many academic libraries were temporarily shut down or reduced their opening hours. This is prominent in the interviews where some respondents explicitly mentioned how the pandemic influenced user information behavior.

<sup>3</sup> “It is students and researchers who dominate and are the most important user groups.”

Under pandemin så blev det ju ändå så att många av dem som förut har önskat sig tryckt så fördelarna med [...] e-materialet så att de kan sitta hemma med det. Så det har blivit jättestor skillnad.<sup>4</sup> (R4)

Even though the academic community was already used to accessing and using e-resources, the pandemic enhanced the need and want for e-resources. According to previous literature, the academic community is accustomed to having unlimited, remote access (Evans & Saponaro, 2012) for satisfying their immediate needs through e-resources (Downey & Zhang, 2020). Libraries had to adapt to this changing landscape and the respondents gave the impression of being willing and ready to take on more distance learning and digital collection management in the future in order to continue satisfying user information needs. This could indicate that a greater demand and need for e-resources would develop a foundation for e-weeding considerations in the future.

Moreover, the pandemic might have forced users within certain disciplines to get more comfortable with using e-resources. Technology oriented disciplines tend to be heavily reliant on e-resources (Berglind et al., 2020) whereas researchers and students in the humanities might prefer browsing physical book shelves. One respondent who worked at a university library that focused on users within technology and natural sciences, identified this phenomena:

[E]ftersom våra användare är väldigt vana vid att använd[a] tidskrifter och de har blivit så elektroniskt dominant så är de vana vid att hitta sin information elektroniskt i första hand. Och kanske inte lika bokvana.<sup>5</sup> (R3)

On the opposite end of the spectrum, a respondent at a smaller specialized library dealing with material within the humanities described their circumstances thus:

Och det finns ju flera skäl till att vi inte haft så mycket e-böcker därför att i våra ämnen är ju inte jättemycket e-böcker heller. Alltså, det blir ju mer och mer förstås, men tidigare var det ju inte så.<sup>6</sup> (R2)

Respondent 2 goes on to describe the difficulties of working with e-resources when it comes to specialized material where physical and practical hindrances make the use of print material more convenient. Considerations for weeding and e-weeding therefore must be varied based on the predominant subject area of the library in question.

When discussing the necessity to use e-resources for study or work, the concept of format, reading on a screen versus a physical page, surfaced in the interviews. Many of the respondents gave their impressions of user needs and wants. Three respondents voiced the opinion that their users prefer physical books. However, it is not a matter only of preference. Respondent 6 presented a

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<sup>4</sup> “During the pandemic, many who previously wanted print saw the benefits of e-material so they can use it at home. So it is a really big difference.”

<sup>5</sup> “Because our users are very used to using journals and are very used to electronic formats, they are used to finding information electronically first. And are perhaps not as used to books.”

<sup>6</sup> “There are several reasons for us not having a lot of e-books, because in our subjects there are not a lot of e-books. It is increasing, but previously it was not that common.”

different angle – usability, pondering the possibility of underlying reasons for using either format:

[W]e also need to be sensitive to users' needs. Not everyone can [...] use a print book. Not everyone can use an e-book and there are pros and cons.

This sentiment reveals that the Swedish academic libraries in our sample are concerned about the digital literacy of their users and weeding print material must be carefully considered from multiple angles and perspectives.

Furthermore, discussions on collection management matters revealed two distinct ways to consider users in relation to responsibility. In one view, it is the library's responsibility to serve users with appropriate material: "[w]e don't want to direct users to those books, we want to direct users to other books" (R7). In the other view, the users themselves are responsible for evaluating resources that are available in the library discovery systems: "[j]ag tänker att studenterna förhoppningsvis är så medvetna så att de inser att de läser en gammal upplaga och att det finns delar som inte stämmer då längre" (R4).<sup>7</sup> These two schools of thought, either giving them the right answer, or letting them work it out themselves, could have a considerable effect on e-weeding practices. For example, if librarians regard their users as responsible for becoming sufficiently information and digital literate to navigate e-collections, then weeding e-material would seem secondary since it is a part of the learning process to discard inappropriate material.

As well as the library being a central part of students' lives, in every interview the libraries were also presented as being very close with university faculty. The respondents generally expressed positive attitudes towards more collaboration between library and university faculty users. The problem with establishing these connections seemed to be practical in nature. The faculty "[d]on't have the time to talk to us" (R9) and the librarians "[d]on't see how that would work, for both us or the faculty" (R5). This desire can be associated with Ward's (2015) postulation that librarians stand to gain expert knowledge on subject matters directly from subject experts that can inform acquisition and weeding decisions. Still, some respondents presented the faculty as being insufficiently trained to understand library practices:

Det var faktiskt en lärare [...] vi hade någon sån här inspirationstal av honom och [han] sa att ja förr i tiden använde man ju biblioteket. Nu använder jag aldrig, jag hittar allt jag behöver på nätet.<sup>8</sup> (R4)

At the same time, this tendency was found to be more or less strong at different kinds of academic libraries. At small special libraries, the librarians and teachers seemed to have a closer relationship, where they often visited the library and were consulted on acquisition matters. However, the quantitative analysis of policy documents revealed that the majority of included libraries (72 %) did not involve their user community in matters of weeding (see Figure

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<sup>7</sup> "I hope that the students are aware so they realize that they are reading an old edition and that there might be parts that are not correct anymore."

<sup>8</sup> "There was one teacher who held some sort of inspirational speech that said oh previously people used to use the library. Now I never use it, I find everything I need online."

6.7: Mention of Community Involvement with Weeding, p. 65). It is feasible that the process of including user communities in weeding practices might not be formalized and therefore not included in official policy documents. Still, faculty involvement was found to be more prominent with acquisition matters, rather than with weeding (read more in section 6.3 Related library practices).

The aspect of library identity also came into focus in the interviews. Some Swedish academic libraries are “pliktbibliotek” and their mission is to receive and preserve material, as mandated by the National Library (2021). The idea of the library as a storehouse of knowledge (see Johnson, 2009) is very much encouraged at these libraries and also has considerable effects on collection management practices. On account of their responsibility as pliktbibliotek, these libraries can afford to think of themselves as keepers of the books (see Prosser, 2020). One respondent described this as “a luxury” and “a privilege” since they did not have to concern themselves with weeding thanks to their library’s identity. Respondents from libraries that are not pliktbibliotek however, needed to consider their collections in a different way. Library space issues and staying within the bounds of their subject areas were strong guiding forces behind collection development decisions. One respondent described how their library had moved away from the tradition of keeping everything:

[B]ut also the way we took care of books before. We had another kind of acquisition policy then, so we accepted all books because we wanted a library with lots of books. So if we got someone giving away books to the library, we just took them. (R8)

The quote highlights the fact that the identity of the library influences acquisition strategies; if you want to be perceived as a large, well stocked library you also need to have a lot of books. However, this practice is also problematized by Respondent 8 who described that this has led to them currently being in great need of weeding. They now want to focus more on the quality of the collections rather than the quantity. The shift in purpose and identity of the academic library, as seen with these respondents, is also in line with the idea that contemporary libraries are information centers specifically catered to the needs of the user community rather than simply storehouses (Johnson, 2009; McAllister & Scherlen, 2017; Witten et al., 2010).

## **6.2 Strategic media policy documents**

Respondents described their use of policy documents as either a reflection of their practices or as a point of reference that dictates practices. In addition, the majority (21) of the policy documents in the quantitative analysis contained information about the library’s weeding practices (see Figure 6.2).

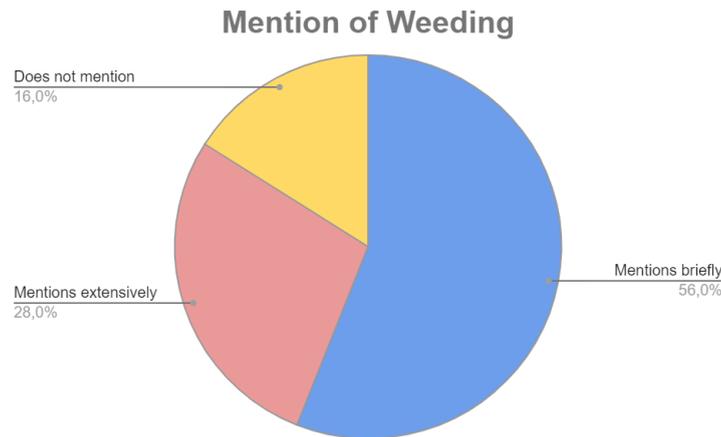


Figure 6.2: Mention of Weeding. The figure shows the frequency of which weeding has been mentioned in the policy documents.

The employment of policies within academic library weeding practices is emphasized by researchers such as Johnson (2009), Evans and Saponaro (2012) and Vnuk (2015). These researchers discuss policy documents as a means of supporting the successful implementation of a library’s operational steps as well as communicating the library’s goals and purpose internally and externally. It can be observed from Figure 6.2 that weeding is formally discussed in over 80 % of the policy documents while less than 20% of the documents made no mention of weeding. This indicates that weeding is a prominent feature within this sample of Swedish academic library formalized documentation.

In the interviews, two different views on the role in which the policy documents play at the libraries were identified. Several respondents reported that they employed the policy document as a background document where the contents were known to them and the physical document was not required: “I would say it’s a useful document even though we don’t go back and go through it [...] but it’s in our mind as I said” (R9). This reflects the first view, in which the policy document is seen as a reflection of library practices such that changes in their practices dictated changes in the policy.

[V]i i gruppen tycker att vi ska göra saker annorlunda då är det ju dokumentet vi ändrar, vi ändrar oss inte efter vad som står i den.<sup>9</sup> (R3)

On the other hand, other respondents voiced the opinion that “the plan should dictate the actions“ (R7) and that the policy should be regularly consulted for the implementation of library practices. From this viewpoint, the policy was found to be directly employed to guide weeding practices.

<sup>9</sup> “If we as a group think things ought to be done differently, then we change the contents of the documents rather than abide by what’s already in it.”

Interviewer: So you have taken the list and then you have selected books that you want to remove. What would you do?

R8: It doesn't mean that we have to remove it, but we will evaluate if we should remove it when we come to our guidelines and look into different part of it.

There were also different ways of utilizing the policy document. One respondent described it as a document used on a needs-based principle, where a librarian would only consult the policy when conducting a weeding project or making collection decisions: “[I]f we have a project perhaps of weeding the literature. Then we could go back and see if it says something that we should think about, and so on” (R9). However, some of the respondents described the policies as generalized documents that did not provide enough details for practical library routines. A strategy that was identified in the interviews was to have an overarching policy that included general goals, which were linked to more detailed internal plans that could be used directly by a librarian when weeding. These kinds of more detailed documents were however often internal and not available for outside users. Still, some of the libraries from the interviews currently publish their strategic media plans online: “Den ligger ju tillgänglig på nätet, våran medieplan” (R1).<sup>10</sup> Van der Veer Martens (2022) states that anxiety experienced by users who become aware of weeding projects is quelled by having access to published weeding criteria.

Additionally, the policy was considered a means of internal communication with newly instated library staff: “[I]t's a very good document to use if you hire a new person” (R9). Vnuk (2015) has previously stated that having policy documents help ensure continuity in practice when hiring new people, a sentiment echoed by Berglind et al. (2020) who write that information about collection management risks disappearing when key figures leave the library.

Respondents also described the policy documents as beneficial and protective when presented to external entities so as to justify their weeding practices. A clearly written policy document was described as a means of relieving the pressure from external entities: “Men på så vis är det väl kanske en hjälp att jag inte behöver ständigt stå till förfogande för någon som har en fråga utan jag kan hänvisa till dokumentet” (R1).<sup>11</sup> Students, faculty and the public either have access to their policy documents through the library's web page or are referred to it: “[I]f someone asks, maybe from faculty, how we work with weeding, we show them the policy” (R8). In this way, the policy is used as a method of external communication which is also a recommended practice described by previous authors (Berglind et al., 2020; Johnson, 2009; Vnuk, 2015). Thus, the library's goals and aims can be presented and weeding projects are motivated and explained to that extent. Any political fallout or public uproar from weeding practices may therein be subdued.

Many of the policy documents were further described as not being static but evolving along with new institutional goals. The majority of the respondents revealed that their policies were constantly subject to change and in several

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<sup>10</sup> “Our media plan is available online.”

<sup>11</sup> “In that sense it might be helpful because I don't have to be constantly at disposal if someone has questions, instead I can refer them to the document.”

instances were described as being regularly updated. This practice is in alignment with Johnson's (2009) statement that good collection management policies are continuously reviewed, revised and updated. One respondent explained that they went through a large revision of the policy document after redefining weeding at their library: "[V]i har tagit bort [...] mycket prat om hur vi gallrar och sånt för det tycker jag inte hör hemma i en mediaförsörjningsplan, utan det är mer hur vi förvaltar och bevarar" (R10).<sup>12</sup>

### 6.3 Related library practices

Weeding and e-weeding do not happen in a vacuum, there are other library activities and practices closely tied to them. This is identified by Respondent 1:

[D]et hänger ju ihop kan man säga. [...] [H]ela processen från det att man beslutar sig för att genomföra ett inköp egentligen tills dess att man faktiskt gör sig av med boken. Det hänger ju ihop hela den kedjan.<sup>13</sup>

What is highlighted in the quote is the fact that a library collection is an ecosystem where acquisition strategies affect what type of weeding is required. Johnson (2009) reiterates this concept by stating that weeding criteria ought to mirror acquisition criteria – they are two sides of the same coin. One respondent explained that when there is a disconnect between the two, it risks becoming a problem when the realization dawns that the library accidentally acquired too much within one subject:

[I]bland hinner det gå rätt så lång tid eftersom vi är många inköpare och [...] det tar ett tag innan man upptäcker att det här ämnet har vi råkat få jättemycket i.<sup>14</sup> (R4)

Discussions about collection management and weeding revealed that strategies for acquisitions varied among libraries. Respondent 10 stated that physical material only consisted of five percent of the budget, while Respondent 4 said it was under 10 percent. Two respondents described the use of a demand driven acquisition (DDA) strategy (read more on this in 6.4 Digital collection management concerns).

Another very important library function in relation to weeding is storage, in Swedish *magasinerings*. To put books in closed stacks seemed to the respondents as being a middle ground between keeping and throwing away material, one step away from weeding.

[B]ara för att någonting inte är så pass aktuellt att det används mycket att det absolut ska helt bort, utan få med det i mellanläget magasinerings.<sup>15</sup> (R3)

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<sup>12</sup> "We have removed a lot about how we weed because that doesn't belong in a media acquisition plan, but rather is a part of how we manage and preserve."

<sup>13</sup> "It's all connected. The entire process from deciding on an acquisition until you get rid of the book. The whole chain of events is connected."

<sup>14</sup> "Sometimes it takes a while to discover that there is one overpopulated subject, since we are many who work with acquisition."

<sup>15</sup> "Just because something is not relevant or used as much is not a guarantee that it would be removed but rather sent to middle ground: storage/closed stacks."

To store books away from the open shelves but still keep them in the collections seemingly has many advantages for libraries. They get to modify the impression users get of the library by managing what is seen on the shelves (see Prosser, 2020) and pushes weeding decisions forward, thus political fallout from weeding projects is averted (see Albitz et. al, 2014). Not committing to full removal through weeding but simply putting books in storage could be more lenient for librarians who do not want to make a final decision (see Ward & Aagard, 2008; Van der Veer Martens, 2022). However, such a practice risks only sweeping dust under the rug since storage facilities are finite and at some point weeding still needs to be conducted: “[v]i kan inte bara hålla på och trycka in och trycka in och trycka in i vårt magasin” (R1).<sup>16</sup>

The topic of preservation was also pertinent within discussions about collection management and weeding. By excluding material from a library collection it is no longer under the care of the library, thus preservation is out of their hands. Preservation and weeding could be claimed to be almost as intertwined as acquisition and weeding. In fact, when one library was asked to provide their media policy document for this thesis, they sent their “bevarandeplan”, *preservation plan*. This sentiment was also found in the interviews, where Respondent 7 described weeding as “an indirect consequence” of preservation efforts. In another interview, job tasks such as acquisition, cataloging and weeding were declared as preservation aspects (R1). In general research libraries, the respondents upheld that they did not have any formal preservation responsibilities for the material in their collections and only weeded to satisfy their own users’ needs or to make space. This notion aligns with research by Berglind et al. (2020). At a pliktbibliotek, however, the question of preservation was found to be more complex:

[W]e don’t have responsibility to preserve, that’s just The Royal Library and the Library in Lund that do need to keep a copy of everything. We receive a copy of everything, but we don’t need to keep it all, but we do keep a lot, about 50% that is sent to us we do keep.

Even though this library does not have to preserve and keep the books that they receive, they adopt about half into their collections. This might be because of the identity of their library (more discussion on this topic can be found in section 6.1 Academic library descriptions and user communities). At a specialized library, another approach to preservation was presented:

[V]i tycker att vi ansvar för [discipline literature], [...] det är ju självpåtaget för vi tycker att det här är ju en skola som utbildar [discipline] och [discipline] så blir det ganska självklart att vi har ansvar för det.<sup>17</sup> (R2)

In the quote, the librarian describes how the library has taken it upon themselves to preserve information in a certain specialist discipline, even though they have no formal mandates that require them to do so. This practice seems to stem from the library’s goal to serve their users as best as possible,

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<sup>16</sup> “We cannot keep pushing and pushing and pushing things into our storage space.”

<sup>17</sup> “In our mind, we are responsible for the [discipline literature], but that is self-appointed because this is a school that teaches [discipline] and [discipline] so it feels obvious that we are responsible for them.”

which ties into the purpose and goal of an academic library (see Okogwu, 2020; Rubin, 2016). Berglind et al. (2020) have stated that special libraries are very restrictive in their weeding practices because they consider their collections in light of what is available nationally and therein take responsibility for their own subjects. This can also be seen in the quote above from Respondent 2 where a layer of apprehension is expressed; if we do not preserve it, who will? How are the users going to access the information they need? National cooperation could present a solution to these inquiries. Respondent 10 highlights the importance of a national framework and the national responsibility of information preservation:

Det är också en jätteviktig parameter liksom det nationella ansvaret, åtkomsten till ett material så man inte slänger det sista exemplaret som finns.

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This notion comes up in almost every one of the interviews; there is a fear of weeding the last copy of a book that is available in Sweden. In the case of special libraries, Berglind et al. (2020) declared that they want a national framework to support their weeding since they feel a responsibility that goes beyond what is formally asked of them. One interview respondent suggested national collaboration to alleviate the pressure on special libraries:

As has been the example for many special libraries that they cannot keep their collections and we should have kept those collections and thrown away something else on a national level. (R7)

Some respondents explicitly mention the need for common practices and collaborative efforts when it comes to collection management; “[s]å slipper man göra om hjulet varje gång” (R10).<sup>19</sup> There seem to be clear benefits to establishing national frameworks for weeding, as seen in the interviews.

[T]here’s been a discussion nationally as well. The last years that [...] university libraries should cooperate regarding weeding and collection management so that not all libraries suddenly decide to weed a title because there’s no interest in it, but perhaps in 20 or 30 or 50 years there will be an interest in them and then [...] suddenly no library has it. (R5)

The desire for collaboration on these topics are not only present in the interviews, but have been previously investigated by contemporary Swedish researchers (Berglind et al., 2020). Currently, there are established regulations on preservation of Swedish material. Berglind et al. (2020) describe how the National Library keeps a “nationalexemplar” whereas Lund University Library keeps a “reservexemplar”, and every pliktbibliotek are supposed to be able to make interlibrary loans of the “pliktmateriel”. The topic of national preservation efforts were not thoroughly explored in the interviews, nonetheless there seemed to be discrepancies of the respondents perspective as opposed to what Berglind et al. (2020) describe. A discrepancy between formal regulations and library practices is not ideal since opportunities for satisfying user needs are not employed to their fullest potential. Making sure that all

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<sup>18</sup> “The national responsibility is also a really important factor, to be able to access material so you don’t throw out the last copy.”

<sup>19</sup> “So you don’t have to reinvent the wheel every time.”

academic libraries in Sweden are on the same page regarding what the National Library and the pliktbibliotek can provide would reduce this risk.

Furthermore, Berglind et al. (2020) uphold the national library catalog Libris as an important tool for collaboration. In the interviews, Libris is described as central to the weeding process since they consult it when determining whether or not they are about to weed the last copy of a book in Sweden (see 6.1 Academic library descriptions and users communities). One library stated that “[v]i registrerar ju inte i Libris våra e-böcker. Det finns inget riktigt effektivt sätt just nu att arbeta med det i Libris, inte som vi har hittat i alla fall” (R1).<sup>20</sup> This might only be an issue with e-resources, but nevertheless it does not bode well for a national collaborative effort of e-weeding if some libraries do not provide information about their collections in Libris.

Collaboration in the form of consortia is another type of national effort to support academic libraries with decisions regarding collection management. Two consortia were mentioned in the policy documents; Bibsam and Svensk Nationell Datatjänst (SND). The Bibsam consortium was founded in 1996 and negotiates license agreements for e-resources on behalf of 96 organizations today, where the 10 largest universities are responsible for 70 % of the total 47 million euro turnover (The National Library of Sweden, 2022). SND consists of nine Swedish university libraries, hosted by University of Gothenburg, and works towards supporting accessibility, preservation and re-use of research data with the goal of being “open as possible, as closed as necessary” (Swedish National Data Service, 2022).

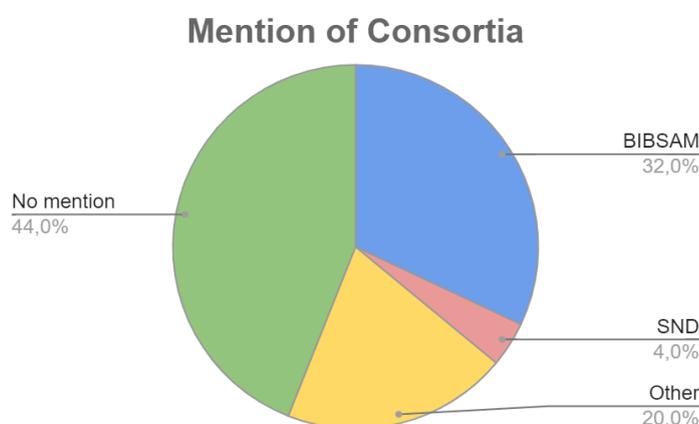


Figure 6.3: Mention of Consortia. The figure shows consortia agreements in the policy documents.

The consortia as presented in the documents (see Figure 6.3) seemed only to be applicable to acquisition and the negotiation of Big Deals with e-vendors. Traditionally, this was the purpose of library consortia, and earlier research has upheld the benefit of such an arrangement – substantial discounts (Albitz et al., 2014). Through collective force, Bibsam have also managed to negotiate open

<sup>20</sup> “We don’t register our e-books in Libris since we have not found an effective way of working with it.”

access and better prices with the publisher Elsevier (National Library of Sweden, 2019). However, there is a drawback of consortia agreements when it comes to Big Deals identified by Berglind, et al. (2020); collections become too uniform and specialized literature becomes scarce and hard to access. Evans and Saponaro (2012) have highlighted this issue and it can also be found in the interviews.

[O]m jag köper en e-bok till [the university] så är det tillgängligt för [the university] punkt slut. Om jag köper en tryckt bok så kan du beställa ett fjärrlån [...]. Det är en helt annan fråga, har inte med gallring att göra, men den är intressant för den får indikationer på tillgången till information i landet.<sup>21</sup>(R1)

## 6.4 Digital collection management concerns

As revealed in the interviews, there are two major concepts of digital collection management that can be considered affective factors for e-weeding practices: access and budget. When it comes to access, it was irrelevant if material had been purchased, licensed or acquired via consortia as “making sure that the access is correct”(R5) seemed to be a resounding component for all types of digital collections. The appeal of acquiring digital material was due to the multi-user possibilities that it presented as well as the speed of access to material.

[M]an ser de praktiska sakerna [...] om de gör ett inköpsförslag på en e-bok eller på en bok och vi väljer att köpa en som “e” så kan de ju ha länken en kvart senare istället för att den skickas eller man står i kö.<sup>22</sup> (R4)

This appeal can be associated with postulations by Kennedy (2005) and Albitz et al. (2014), that there has been a shift within academic libraries to provide access to assembled collections rather than simply collecting material. Contemporary academic librarians are preoccupied with providing optimal access to their users. One respondent explained that it was necessary to check that access was secured before any acquisitions were made. Another respondent explained the need to ensure that the required staff was available to troubleshoot access issues, such as dealing with broken links. Some concerns were also raised as to the accessibility of digital material as opposed to print acquisitions:

[I] know many libraries have gotten rid of print journals because so much is available electronically. But we have had instances where what we thought was perpetual use is no longer available to us and then what do you do when you threw out the print journal. (R6)

Another concern were the restrictive license agreements that hindered access. In almost all cases, publishers permit libraries to grant access primarily to their own students and faculty, making it difficult to provide for the general public

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<sup>21</sup> “If I buy an e-book for [the university] it is only available for [the university]. If I buy a print book then it is available for interlibrary loans. It is a different matter and has nothing to do with weeding, but it is interesting since it affects the access to information in the country.

<sup>22</sup> “You see the practical stuff, if they request a book and we buy it electronically they have the link 15 minutes later rather than the book being sent to them or having them wait in a queue.”

despite libraries preferring to have that option. Johnson (2009) as well as Tripathi and Jeevan (2013) refer to the disadvantageous restrictions and conditions of use that tend to accompany license agreements. Other dilemmas with license restrictions brought to light in the interviews were the inability to provide the licensed material as interlibrary loans and the inability to provide access to older editions of the e-material.

Consortia agreements are an ordinary part of academic library practices (see section 6.3 Related library practices), but these can also impede a library's freedom when it comes to e-material. One respondent discussed restrictions with collections that resulted from being part of a consortia. The issue was the fact that only one simultaneous user was given access at a time, within the consortia of about 10 libraries. Since modern librarians are preoccupied with access (see Albitz et al., 2014; Kennedy, 2005) such a severe hindrance to access could warrant e-weeding. Today, consortia such as Bibsam take these issues into consideration when negotiating terms of license agreements (see The National Library of Sweden, 2022). On the other hand, if an academic library chooses not to partake in a consortium, the librarians have to negotiate low cost Big Deals directly with publishers and vendors by themselves without support (see Ward, 2015).

Budgets for digital collections was the other factor discussed by respondents that can be considered to have an effect on e-weeding practices. E-resources were described by most respondents as expensive in comparison to print resources: “[S]en måste vi också titta på vad vi har för budget för [...] rent generellt så kostar alla de där mycket mer än en tryckt bok” (R2).<sup>23</sup> One respondent explained that unused e-material could easily be ignored, particularly if they did not incur any cost: “[S]å länge det inte kostar någonting så kan man ju gärna låta en e-resurs ligga och tuffa på lite” (R3).<sup>24</sup> This notion was also prevalent in the discussions about motivations for e-weeding, see 6.6.2 E-weeding: to conduct it or not to conduct it?

Other respondents discussed their budgets as being more flexible with regards to e-resources. A large portion of the budget could be dedicated towards e-resources, since this was justified by their policy:

E-books aren't always available. They can be very expensive [...] but the policy says this is our main focus and this is what we want to do most of the time when we can. (R6)

Another respondent described their employment of the DDA method; “It's been quite common a few years because of the demand driven way we do things that use these, well demand driven access, acquisition of e-books” (R5). A DDA model has been presented by Downey and Zhang (2020) as widely employed at academic libraries for e-resource acquisitions and they also considered this a facilitating factor for weeding digital material.

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<sup>23</sup> “We have to consider our budget, because generally an e-book costs a lot more than a print book.”

<sup>24</sup> “As long as it doesn't cost anything you might as well leave an e-resource alone.”

An unexpected factor revealed by respondents that could affect e-weeding practices at Swedish academic libraries was the lack of Swedish academic e-material. Most respondents gave voice to the fact that there is a great lack of digital material in the Swedish language, particularly among academic literature commonly used as textbooks. One respondent explained that Swedish publishers were very reluctant to provide Swedish e-material to libraries. Another respondent added that “[W]hat they have offered us is too expensive and they cannot offer us course books that the students need” (R8). This issue cannot only be associated with the shortage of Swedish e-resources, but also associated with budget factors that specifically affect academic libraries. Since there are few Swedish academic e-resources, it impedes on libraries ability to conduct e-weeding in that area simply due to the lack of material.

## 6.5 Print weeding

To conduct print weeding is an essential part of collection development and management (Albitz et al., 2014; Johnson, 2009; Larson & Boon, 2012; Ward, 2015). Therefore, print weeding was designed to be a very prevalent theme in the interviews. The conversations around print weeding is also the foundation upon which to discuss e-weeding. This part of the result is divided into sections that present prominent themes that emerged from the analysis of the interviews. The quantitative analysis of policy documents are also present in these discussions.

### 6.5.1 How is print weeding defined?

A little more than half of the policy documents did not present any definition of weeding (see Figure 6.4). 13 of them seemed to consider weeding as complete removal of material from their collections, whereas three described weeding as a combination of both transfer and removal and only one document formally described weeding as the transfer of material to storage.

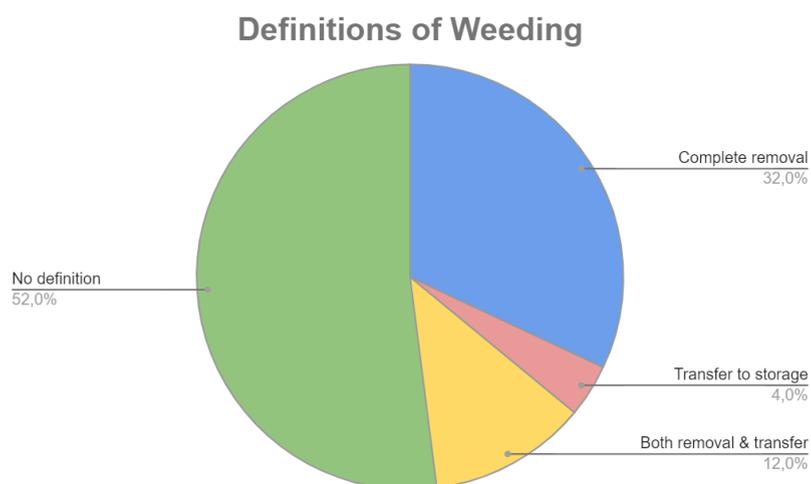


Figure 6.4: Definitions of Weeding. The figure shows weeding as defined in the policy documents.

However, the interviews revealed that the understanding of weeding at Swedish academic libraries was the complete removal of material from their collections

such that it no longer exists in their catalogs or even in Libris; “we remove the book and take out the barcode and it’s no longer in our library system” (R6). The definition of weeding as complete removal is also recurring amongst previous researchers (Vaughn et al., 2015). One of the respondents additionally described weeding as an intentional and conscious process to remove an item from their collections, which reflects the specific definition of weeding presented by Albitz et al. (2014).

In general, most of the respondents’ personal definitions of weeding were aligned with their libraries’ weeding definitions. However, one respondent’s definition was not entirely congruent with their library’s idea of weeding. To have a unified definition between the library and its librarians was considered important since differing viewpoints created confusion when weeding projects were initiated: “[I]t would be better if we meant the same thing” (R7). The definition of weeding as the transfer from active to inactive collections before being considered for weeding was also found in the interviews. Weeding being understood as both the transfer to less active collections and the withdrawal from the collections in general is echoed by Johnson (2009) despite the rarity of it among this sample of Swedish academic librarians.

Therefore, the policy documents are observed to be in alignment with the interview responses revealing that the definition of weeding popularized by this sample of Swedish academic librarians and libraries is the complete removal of material from a collection for disposal. However, 12% of policy documents indicated that weeding was a combination of removal and transfer (see Figure 6.4) and two interview respondents also discussed the same definition. None of the respondents considered weeding as solely the transfer of material to closed stacks and it was only one policy document that indicated that definition, therefore it can not be presumed a typical definition.

During the course of the interviews, different types of weeding were identified. Respondents described their weeding practices as either systematic, day-to-day or emergency projects. There was also the scope of the weeding; if it included the entire library in a large project or if the weeding was divided into smaller sections. In Table 6.1 we have compiled a matrix where six different types of weeding are explained and exemplified, based on interview responses.

**Table 6.1: Matrix of different types of weeding projects and approaches, based on the results and analysis of the interviews.**

	SYSTEMATIC	DAY-TO-DAY	EMERGENCY
Large weeding projects	There is a well thought out plan of how to systematically work through the physical and digital collections. Weeding goals and practical strategies are defined, that also take differentiating discipline needs into account.	Possible areas for weeding are identified through natural circulation and weeding practices are actively conducted. Physical material in circulation affected by wear and tear or misplacements are weeded. E-resources where links are broken or access through proxy solutions are faulty	Brought on by outside pressure, (for example the university or the National Library). There is an urgent need to weed large portions of collections, brought on by for example changes to the classification system or library spaces being downsized. For e-collections, there could be pressure from consortia to

		should be subject to weeding evaluations.	enter deals or whenever there is pressure to renew or cancel subscriptions from vendors.
<b>Small weeding projects</b>	Entails delimiting parts of the library, perhaps a certain subject that is getting too large or an area of the library that is getting too clogged. Weeding is conducted specifically in those places.	Identification of material by walking through the stacks or traversing e-collections that are in need of weeding. There is no hesitation to weed where necessary, but there are no strict rules as to when or how.	If parts of physical collections are irrevocably damaged (perhaps through water damage or pests), if license agreements with e-book vendors fall through or if course collections need to be updated quickly. This does not encompass the entire library and all collections, but delimited parts.

### 6.5.2 What are the objectives of weeding print material?

To employ objectives for describing library practices in policy documents is a recommended practice by previous researchers (Albitz et al., 2014; Anderson, 1996; Johnson, 2009). Weeding should also be governed by these objectives at Swedish academic libraries. More than 80% of the policy documents incorporated a mission statement that guided the practices (see Figure 6.5).

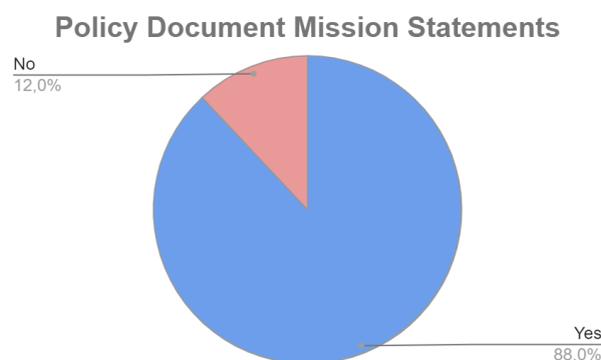


Figure 6.5: Policy Document Mission Statements. The figure shows the amount of policy documents that contained mission statements.

The interviews revealed that the most frequent weeding objective was the scarcity of space in the library: “En stor anledning är att det inte får plats” (R1).

<sup>25</sup> The pressure to free up space was in many cases associated with an urgent and acute need to relocate collections to newer premises or to move the entire library. One respondent likened the situation to that of sounding a fire alarm: “[B]randkårsutryckningar<sup>26</sup> all the time to just be panic fixing everything” (R7).

<sup>25</sup> “A big reason is that it doesn’t fit.”

<sup>26</sup> “fire brigade emergency services”

At the same time, another respondent claimed that since the abundance of space on their premises permitted the continuous growth of their collections, weeding was rarely ever conducted: “[W]e’ve been fortunate enough to have enough shelving space to keep growing” (R6). Therefore, the objective of space was dependent on how much physical capacity each library possessed and if there was any urgency to make space at the library. Vnuk (2015) however indicates that weeding for the freeing up of space should be aimed at improving collection appearances and user experiences. The shortness of space was additionally associated with the discovery of too many obsolete books filling up library and storage stacks by respondents. Others revealed that large weeding projects were seldom conducted and some indicated that large weeding projects were conducted mainly in their closed stacks. Although the weeding objective of space has been considered as typical at academic libraries (Albitz et al., 2014), Larson and Boon (2012) suggest that there is need for continual review of collections, not only when space is depleting.

Despite space initially being declared as the sole objective of weeding projects, a few respondents also revealed additional weeding objectives:

- contents are misleading or potentially harmful: “där man gallrar kanske mer som en hygienfaktor [...] det handlar om att folks väl och ve” (R1),<sup>27</sup>
- having more control over the collections: “Så att det inte blir stående utan någon koll alls för länge” (R3),<sup>28</sup>
- maintaining the collection’s quality: “[M]an vill ha en bra samling” (R4),<sup>29</sup> and
- getting to know their existing collections: “Because you get to know a lot of the printed collection if you do like that” (R9).

The smaller type of day-to-day weeding projects were conducted more often and primarily in the open stacks. This type of weeding was seemingly conducted to maintain collection quality: “But if you have this more ongoing weeding, that you more focus on what do we want to have in our open stacks that is relevant and the latest edition and to have an optimized collection” (R7). To maintain the quality of collections aligns with the best practices for weeding objectives presented by several researchers including Slote (1997), Johnson (2009) and Vnuk (2015).

### 6.5.3 What approaches are used for print weeding?

Despite the recommendation to use policy documents to establish library weeding guidelines (see Johnson, 2009; Vnuk, 2015), less than 50% of the policy documents provided a description of their weeding guidelines (see Figure 6.6). This indicates that despite weeding being included as a central aspect of collection development, the approach to formally present this practice is not as popularized as presenting the library’s mission.

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<sup>27</sup> “You weed as a hygiene effort. It’s about people’s health and safety.”

<sup>28</sup> “So it doesn’t get neglected for too long.”

<sup>29</sup> “You want a good collection.”

## Mention of Weeding Guidelines

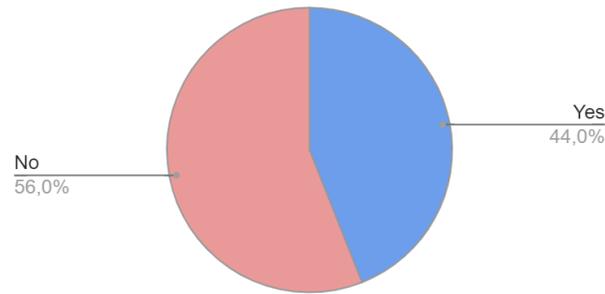


Figure 6.6: Mention of Weeding Guidelines. The figure shows the amount of policy documents that contained weeding guidelines.

Most of the respondents described their weeding practices as being non-systematic: “[V]i har [...] inte haft något systematiskt arbete för gallring” (R3).<sup>30</sup> This was attributed to the fact that often larger, systematic weeding projects were conducted as a result of lack of space whereas the type of smaller, unplanned, day-to-day weeding in most cases were developed ad hoc.

Vi går inte igenom med någon viss period och gallrar. [...] [U]tan det är mer något tillfälligt som görs.<sup>31</sup> (R3)

According to one respondent, weeding practices were integrated with their preservation plans and therefore independent systematic guidelines for weeding were not presented. Adopting systematic weeding practices are heavily recommended by previous researchers (see Johnson, 2009; Vnuk, 2015) irrespective of if they are formalized or not. Even if the respondents did not currently have documented, systematic processes there might have been informally described systematic plans for weeding in place. However, this notion was negated by the responses in the interviews.

The reason for weeding not being done systematically and actively seemed to be time: “Det tar ju tid att göra det här på bästa sätt” (R2).<sup>32</sup> The lack of time was attributed mainly to the prioritizing of other library practices ahead of weeding, such as acquisition or interlibrary loans. Weeding was not entirely sidelined but only conducted when a suitable time could be allocated for it.

[D]et är ofta en syssla som görs på lite på sommartid eller så när det är mindre studenter och en del andra arbetsuppgifter går ner lite i mängd.<sup>33</sup> (R3)

Larson and Boon (2012) claim that an issue such as time is not a reasonable excuse to avoid weeding since it is such a vital aspect of collection maintenance. However based on this sample, Swedish academic libraries perceivably lack the time to conduct weeding projects which is a real, practical issue that cannot be overlooked.

<sup>30</sup> “We have not worked systematically with weeding.”

<sup>31</sup> “We don’t go through specific time periods and weed. Instead it is provisionally conducted.”

<sup>32</sup> “It takes time to do this in the best way possible.”

<sup>33</sup> “It is often done in the summertime when there are less students and other tasks decreases.”

Two of the respondents also discussed costs in terms of staffing hours in order to be able to prioritize weeding: “[F]inns det ont om personal, så blir det [weeding] som blir eftersatt” (R3)<sup>34</sup>. The reallocation of available staff members was considered a negative economic result of weeding – the benefits seemingly did not match the effort.

I also have to see well then I need staff to not only go through on the shelves and pick, we also need to do catalog work [...], what’s the gain there? I mean 30 hyllmeter, well, yes, that’s something. But what’s the cost in working hours and doing the job? (R6)

Larson and Boon (2012) suggest that to resolve issues with time and budget, librarians should refer to *CREW: A Weeding Manual for Modern Libraries*.

Another reason for not prioritizing weeding was that no one was affected much by it if weeding was not conducted: “[D]et blir ju sällan det som har högsta prioritet eftersom det finns mycket annat och eftersom ingen ändå direkt lider av att vi har lite för mycket böcker” (R4).<sup>35</sup> This statement is contradicted by previous literature, where Vnuk (2015) states that weeding prevents patrons from becoming frustrated with having to sift through obsolete and less-frequently used material. An argument could also be had that it is the librarians professional duty to offer patrons an optimal selection of information (see Vnuk, 2015), however in practice this might be difficult to prioritize.

In the circumstances that weeding was prioritized, it was often conducted within course collections. A course collection was found to be separate from the rest of the library’s collection, only containing textbooks that are used in the university’s educational programmes and courses. According to many respondents, the course collection was the most used in the library. Course collections as separate entities was not found in previous literature, but they were presented by the respondents as a very central factor of collection management. For example, the respondent whose library rarely conducted weeding explained that when they did carry out weeding projects it was centralized within their course collections:

But we do have one collection where we do active weeding [...] and that’s our course collection [...] and that’s done quite regularly. [...] that’s I would say, well, basically the only collection where we have recurring continuous weeding of items any way, even though we keep one title still. (R6)

In other cases, respondents explained that their larger weeding projects were conducted in their closed stacks or storage spaces (*magasin*): “Framför allt gallrade vi stenhårt i vårt magasin” (R1).<sup>36</sup> Weeding within closed stacks was described as a result of an overfilled storage space or the need to move the storage space to a new location.

Respondents who did describe their weeding practices as systematic conducted it actively: “We work actively with weeding so we have different projects

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<sup>34</sup> “If there is a lack of staff, weeding is neglected.”

<sup>35</sup> “Weeding is rarely prioritized since there are a lot of other tasks and because no one suffers from us having too many books.”

<sup>36</sup> “Above all we weeded very much in our storage.”

almost all the time“ (R8). In these cases, weeding was approached with the objective to produce a quality collection that was easier to manage. One of the respondents described how they remodeled their previous process of emergency weeding to a more planned and quality driven procedure:

So we have a kind of a weeding plan for maybe 10 years.[...] Earlier when we did weeding when we had to do it because we will need the space or something like that. [...] [I]t’s because earlier we felt that we have or were forced to do a specific area when a problem showed up suddenly. So it was more forced to do, “Oh, now we have all this and we have to take care of it.” So working with it more systematically gets it easier for us. [...] [T]o work with the process year after year. (R8)

Slote (1997) and Vnuk (2015) recommend this type of regular and ambitious weeding as described by Respondent 8. Vnuk (2015) also postulated the benefits of regular weeding that include the gradual process of disposing of material instead of discarding large amounts of material at a time. In this way, patrons would not be affected by the sight of large containers filled with discarded books or several empty shelves that reveal weeding has been done (see Prosser, 2020; Ward, 2015).

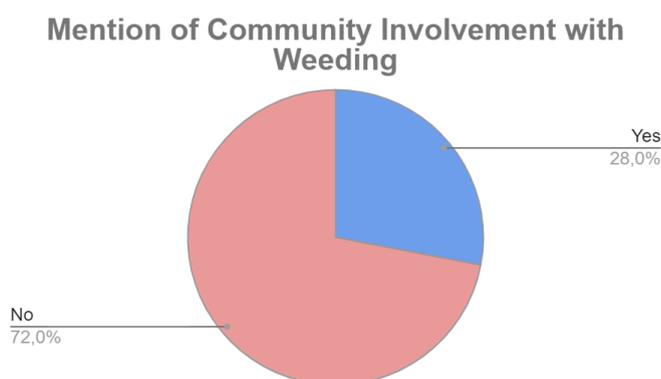


Figure 6.7: Mention of Community Involvement with Weeding. The figure shows the amount of policy documents that mention community involvement with weeding.

In Figure 6.7 it can be observed that less than 30% of policy documents described instances of community involvement with weeding. This indicates that community involvement with weeding was not a prevalent aspect within this sample of Swedish academic libraries. The interviews also revealed the same concept. In most cases there was no community involvement, while in rare cases subject librarians or liaison librarians were contacted as subject experts. One respondent explained that they contacted faculty primarily when they were considering the renewal of print journal subscriptions. Involving user communities in weeding projects facilitates the ability to justify weeding rationales to faculty patron groups (Ward, 2015), but this was rarely mentioned in the interviews. Overall, the aspect of involving faculty with the process of weeding can be considered a rarity at many Swedish academic libraries.

But we have some dialogue with faculty when we start a new weeding project. So the liaison librarian will contact the subject and tell them that we are starting our weeding project in your subject right now, do you have any specific guidelines for us something we have to consider. (R8)

Once physical material is weeded, there is the question of disposal – throw away, donate or put them up for sale? This question was resolved in several ways, according to the respondents: “[W]e have something like a book sale when you can come to the library and buy weeded books for about two or three weeks” (R9). However, an issue with selling weeded material came to light:

[E]ftersom vi har haft lite problem med att samma personer köper upp alla böckerna och säljer de svindyrt [...] har vi nu istället för att skänka böckerna till de här olika studentföreningarna som finns på varje fakultet eller institution. [...] så att det inte ska bli samma personer som gör sig en hacka på [...] sina studentkollegor.<sup>37</sup> (R4)

Another respondent explained that the library did not have permission to sell weeded material and therefore would have to dispose of them directly. If something was weeded based on misleading or harmful information, one respondent gave voice to the opinion that they should not sell it to users: “Sometimes we can throw the book away immediately if it’s something that we think [...] is nothing that we could sell or should sell” (R9). This shows that some libraries feel a responsibility for the material, even beyond having formally weeded them from their collections.

#### 6.5.4 What are the most used print weeding criteria?

The policy documents revealed that the quantitative criteria is present in over 50% of the documents while the qualitative criteria is present in over 60% (see Figure 6.8). Therefore, qualitative weeding criteria is the more dominant form of assessing material for weeding, as presented in the policy documents within this study.

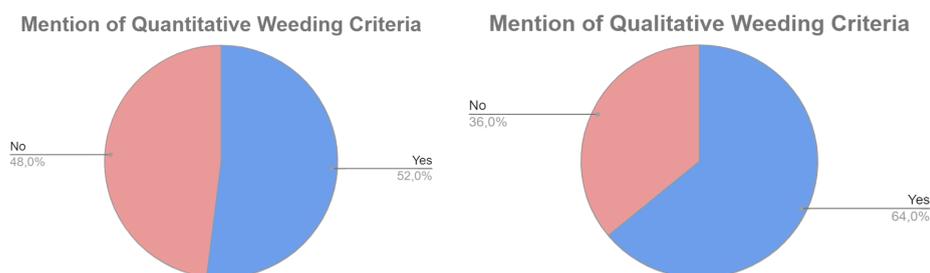


Figure 6.8: Mention of Qualitative Weeding Criteria. Mention of Quantitative Weeding Criteria. The figures show the amount of qualitative and quantitative weeding criteria mentioned in the policy documents.

Similarly to the results of the policy document analysis, the interviews revealed that the most frequently used weeding criteria was the qualitative approach.

<sup>37</sup> “We’ve had some issues with the same people buying all the books and selling them at exorbitant prices, so now we are donating books to the students union in each faculty. At least then these people will not make money off of their fellow students.”

Qualitative weeding criteria has been described in previous literature as popularized at contemporary academic libraries (Ward, 2015). Relevancy to the subjects being taught at the academic institution was the dominant criteria found in the interviews: “[V]i gallrar kanske lite hårdare på sånt som inte är våra huvudämnen än sånt som är huvudämnen” (R3).<sup>38</sup> The second most discussed criteria in the terms of MUSTIE (see Larson & Boon, 2012) was that of superseded editions: “If there has come a new edition of the book then we can weed it and yeah, purchase a new edition” (R9). Other qualitative MUSTIE criteria identified in the interviews were the physical condition of the book (Ugly), the reliability of the content (Misleading) and whether or not the book was available at other libraries (Elsewhere).

Of the quantitative criteria discussed by respondents, usage was identified as the most recurring aspect. Age was also discussed by four of the ten respondents. Some respondents explained extensively which parameters they used for valuated material in terms of usage and time.

And then we look at which titles have not been used for the last 10 years or five years, and we make a selection of titles to weed [...] with that as a base. (R5)

These two quantitative weeding criteria, usage and age, were popularized by Slote (1997) and later advocated by writers such as Waugh et al., (2015) and Van der Veer Martens (2020). It was not apparent from the interviews however, that one type of criteria was preferred over the other, but rather that both quantitative and qualitative aspects were used in tandem. A triangulation of both quantitative and qualitative results (see Figure 6.8) demonstrates that at most Swedish academic libraries there is no clear preference for one criteria over another, but instead a combined approach is adopted. The concept of using a combined criteria method is prevalent in previous literature (see Johnson, 2009).

Some authors critique a purely qualitative approach since it would have negative consequences for some disciplines within the humanities (McAllister & Scherlen, 2017). The idea of applying different weeding practices for different disciplines was also identified in the interviews:

Sen får man ju titta på ämnesområden också [...] vissa böcker har längre shelf-life [...] än andra. Böcker inom filosofi till exempel behöver man inte vara lika hårdhänt att det kan till och med vara så att vi kan kosta på oss att spara en del där även om det inte har varit så mycket utlånat. Återigen böcker inom juridik och datavetenskap och en del andra sådana samhällsvetenskapliga ämnen.<sup>39</sup> (R1)

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<sup>38</sup> “We might weed more when it’s not within our main subjects than when things are within our main subjects.”

<sup>39</sup> “You have to consider the subject area, some books have longer shelf-life than others. Philosophy books you don’t have to be as hard on, we might even keep them even if they have not been in circulation for a while. And again, books within law and data science and other social science subjects.”

Respondents also referred to additional aspects that guided their weeding decisions, such as:

- duplicates: “[V]i började med att rycka alla dubletter” (R1),<sup>40</sup>
- access to electronic versions: “[D]är i en parallellitet vi också köpt in vissa digitala arkiv som ska ersätta dem som vi då ska slänga, eller gallra” (R10),<sup>41</sup> and
- lost material: “There might be a weeding if a book is lost” (R6).

### 6.5.5 How do librarians and users feel about print weeding?

The interviews revealed that in most cases librarians considered weeding a critical but natural part of librarianship that was an accepted part of their professional duties. The respondents generally revealed very little sentimentality towards the task and instead presented emotional indifference, which is in contrast with earlier research (see Ward & Aagard, 2008; Vnuk, 2015). One respondent even highlighted that their colleagues had been requesting more weeding:

Det känns som att många [...] har efterfrågat en gallring rätt länge eftersom vi inte har gjort det på så länge [...] Det ser så trist ut. Det ser ut som vi inte gjort någonting på evigheter.<sup>42</sup> (R3)

Other respondents explained that the primary reason librarians disliked weeding was mainly due to it being a wearisome and time consuming task: “[W]e find it a bit tedious” (R5). Librarians were described as being delighted once the job was complete: “[M]an är så glad över att man har gallrat. Yay nu har vi tid att inte gallra under en period” (R1).<sup>43</sup>

Still, some respondents described librarians’ sentiments on weeding as divided because of their varying professional backgrounds at different libraries where at times weeding was not a norm and they were unaccustomed to it. These sentiments were more in relation to how weeding is supposed to be conducted however, rather than any emotional connections to the material. One respondent explained that negative sentiments expressed by librarians was based on their fear of making the wrong decisions:

Some people hate it and some love it. [...] most people think it’s okay if they feel that [...] they are safe. It’s not a personal decision. [...] it’s also a big personal responsibility. You don’t want to be the librarian who weeded everything and then it’s gone. (R7)

Previous researchers describe librarian sentiments towards weeding as mostly negative and emotional, based on the perceptions of their profession (Johnson, 2009; Ward & Aagard, 2008; Ward, 2015). This was not prevalent in the interviews for this study, where weeding was mostly considered a conventional task. However, one respondent gave voice to the view of librarians being

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<sup>40</sup> “We started off with the duplicates.”

<sup>41</sup> “Where we’ve bought some digital archives that are replacing the ones we are weeding.”

<sup>42</sup> “It feels like a lot of people have been requesting weeding for a while since we have not done it in so long. It looks unkempt and if we have not done anything in forever.”

<sup>43</sup> “You tend to be happy after having weeded. Yay, now we can afford not to weed again for a while.”

preservers of knowledge that should not discard material if they can afford it. Respondent 6 expressed delight in not having any pressure from outside stakeholders to weed but at the same time explained that the other librarians showed an inclination towards weeding because of the fear of collections being perceived as obsolete:

I think if I ever hear negative comments or “Hm oh, it’s such a shame that these dusty old books take up shelf space”, it’s from librarians. Yes, that are worried that we look like we’re obsolete, we don’t know what we’re doing [...] I think I have colleagues that are well kind of self conscious. I don’t know, I think sometimes, librarians judge libraries much harder than the patrons do to be honest. (R6)

Sentiments on weeding from the perspectives of students, faculty and public users were revealed to be more varied, according to the respondents. More significant political fallout from faculty and public users was discussed by the respondents, in comparison to student users. Vnuk (2015) explains that external political fallout is unavoidable and Johnson (2009) suggests the use of policy documents can subdue external users’ anxieties about weeding. Faculty users were described as being more negative towards weeding in comparison to student users:

Interviewer: May I ask who was upset when they saw the books in the containers? Was it faculty, students?

R8: Yeah, no, I think it would have been faculty and teachers.

Another respondent described an instance where a professor was very concerned about the library’s weeding practices: “[H]e is very fond of the library and our library as a whole [...] But then on the other end he says [...] you don’t keep your books you throw them away” (R9). Faculty sentiments towards weeding in previous literature echo these experiences; Albitz et al. (2014) explain that faculty generally tend to be emotionally charged when they discover that library books have been weeded.

The only type of public users with an opinion on weeding identified by the respondents, were journalists. Their reactions were considered as over dramatized responses that had other purposes apart from the desire to save books.

[D]et väl någon journalist som såg framför sig att Astrid Lindgrens samlade verk går till fjärrvärme och mer eller mindre associerade detta till hitlertysklands [...] bokbål [...]. Vi oroar oss inte så mycket för det ärligt talat. [...] Jag tror det här var en sån där riktig tidningsanka.<sup>44</sup> (R1)

At the same time, another respondent expressed serious concern over the sensationalization of weeding by journalists such that they considered it important to be careful about publicizing their weeding projects:

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<sup>44</sup> “It was some journalist who envisioned Astrid Lindgren’s collected works going to be fuel for central heating and associated this with the book burnings in Hitler’s Germany. We do not worry much about this to be honest. I think it was only a piece of sensational journalism (newspaper duck).”

Däremot tittar man ju på den debatten. Därför kanske man är lite mer försiktig med att visa upp hur mycket man gallrar. [...] för att man tänker att det är man inte har lust att alla tidningarna ska skriva om det.<sup>45</sup> (R4)

The subduing of such melodramatic sentiments have been regarded by Albitz et al. (2014) as a public relations concern rather than a weeding strategy and they encourage the proactive communication of weeding projects between the library and external users.

Moreover, respondents explained that the general negative sentiments towards weeding stem from people's lack of knowledge of the processes that are employed to evaluate the material that has been weeded.

[W]hen they see one small example, they could be really, really upset because they don't see the whole picture [...] it's quite difficult to have a discussion because they don't know all the things that happen and the changes in the collection. (R7)

These sentiments were associated with the idea of the general public and other users that librarians and libraries should house and retain all books:

“[F]ascinerande att dom tror att alla bibliotek i hela Sverige ska spara alla böcker de får i alla år som kommer framöver” (R4).<sup>46</sup> One respondent upheld the emotional attachment people can have towards books: “People are in general very careful about books and libraries and they love the books” (R8). The tendency of people towards loving books with a fierce passion is explored in previous literature (see Prosser, 2020).

Students on the other hand were described as being happy that collections were developed to be more relevant to their needs. When looking at the weeded books that were up for sale, they were amused by the contents of the obsolete materials: “[S]tudenter har stått och skrattat över sakerna som har stått där när det varit någon IT bok som är 20 år gammal” (R3).<sup>47</sup> In another case, students were described as appreciative of the option to buy or even being gifted weeded material: “Om det inte är för trasigt, inte lösblad, då har vi kastat men annars har ställt ut då var studenterna jättetacksamma” (R2).<sup>48</sup> In this way, the user experience that students have with the collections can be seen to drive their sentiments and make them appreciative of weeding practices that provide them with either free or cheap textbooks.

## 6.6 E-weeding

When the topic of e-weeding was introduced to the respondents the discussion turned into ponderings on how to conceptualize the term.

[H]ow do you weed and why? On what grounds? Why would you weed an e-book or e-material? (R6)

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<sup>45</sup> “However, you look at the debate. Therefore you might be more cautious with displaying how much you weed. You don't want all the newspapers to write about it.”

<sup>46</sup> “It's fascinating that they think every library in Sweden is going to keep all books forever.”

<sup>47</sup> “Students have laughed about some of the stuff there, some IT book that is 20 years old.”

<sup>48</sup> “When there are loose pages we throw them out, otherwise we give them to students who are very grateful.”

Kan man kalla det för gallring eller är det bara städning?<sup>49</sup> (R10)

Sen är ju frågan vad man kallar för e-gallring också? Är en uppsagd prenumeration en gallring? Kan man ju fundera på. För det gör man ju hela tiden.<sup>50</sup> (R3)

Det är ju en intressant principiell fråga. Hur gör vi med e-böcker som som ingen läser längre? Ska vi gömma dem för folk också? Ja, kanske, kanske inte. Jag har ärligt och uppriktigt inget svar på den funderingen.<sup>51</sup> (R1)

One of the goals of conducting interviews with LIS professionals who work at academic libraries was to get their perspective on the matter of e-weeding. It was never our intention to seek out an objective truth. Therefore the quotes above, however hesitant or uncertain, are precisely what we hoped to observe.

This part of the result is dedicated to describing different aspects of e-weeding as revealed by the interview respondents. The results will be based largely on the interviews since the policy documents lacked any substantial information on e-weeding. These results should not be considered as authoritative and prescriptive of what e-weeding is or should be, but rather constitute the basis of future discussions.

### 6.6.1 How is e-weeding imagined?

According to Larson and Boon (2012), librarians can be bewildered at the idea of weeding e-collections. This phenomenon was prevalent among the interview respondents. A very central question that the respondents grappled with was how to define e-weeding. What practices would be included? And, equally as important, what is *not* to be included?

For print collections respondents described a clear physicality to the weeding process – the librarian takes a book off the shelf, wheels it to their office, puts it in a pile and scans the barcode. For e-collections the entire process of acquisition, receiving, cataloging, registering, loaning and weeding was described as taking place on a screen. This made Respondent 1 describe the act of e-weeding as banal since it is just a matter of unchecking a box. This revealed that respondents did not relate print weeding practices with any similar activity that could be conducted with e-collections. Therefore it can be expected that the respondents' conceptualization of an e-weeding process would be obscure. Some respondents described the e-weeding process as fragmented, compared to print weeding, and it seemed very removed from the romantic notions of a print book (see Prosser, 2020). The emotional, nostalgic part of weeding therefore seemed to be lacking from e-weeding practices, as was the case with print weeding (see 6.5.5 How do librarians and users feel about print weeding?).

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<sup>49</sup> “Can you call that weeding or is it just tidying up?”

<sup>50</sup> “The question is, what is e-weeding? Is it a terminated subscription? That’s something worth reflecting on. Because we do that all the time.”

<sup>51</sup> “That is an interesting question. What do we do with e-books no one reads anymore? Should we hide them for people too? Yes, maybe, maybe not. Honestly and truthfully, I have no answers to this.”

[T]o weed something is quite simple, which means only deactivating its link on a link resolver. (R5)

A common starting point when discussing e-weeding was digital collection management. Dealing with licensed databases, subscription based e-journals and Big Deal e-book packages were brought up by respondents. Despite these factors being highly relevant to an e-weeding practice, according to Ward (2015), some respondents were reluctant to include these in their conceptualization of e-weeding.

[I]f we finish the subscription, we don't have anything, we don't have any perpetual access. [...] It's not weeding, but it's a way that we handle e-books differently. (R7)

[T]his is not a subscription we should keep. We cancel it, and that is some kind of weeding as well, because then all the issues will be gone if you cancel the subscription. (R9)

One respondent considered the act of ending a subscription as collection management rather than e-weeding. According to Johnson (2009), collection management is an umbrella term for collection maintenance, composed of cataloging, classifying, organizing, weeding and other maintenance activities. If a librarian is discussing digital collection management using only that term, it is unclear if they are speaking about cataloging, classifying, organizing, weeding or something else. Therefore, when declaring that e-weeding is collection management in general, granularity and specificity of language is lost.

On the other hand, most respondents seemed to think that for the removal of digital material to be considered a weeding process, the library must own the material. Therefore, unsubscribing would not fit into the description of e-weeding; “[m]en det är ju inte gallring [...] vi har inte ägt det materialet” (R2).<sup>52</sup>

The aspects of open access material and internet links were also highlighted in the interviews in relation to e-weeding. In the early days of the World Wide Web, librarian's were keen to include links to different sources in their catalog, which according to Respondent 1 requires a lot of weeding today:

Där har vi fått jobba en del aktivt med gallra nu, försöka spåra upp det här materialet och ta bort [...] länkar dör, myndigheter bygger om sina webbplatser.<sup>53</sup>

Another respondent explained the importance of maintaining e-resource links and described the process as “registervård” (*register management*). This entailed excluding broken links from the library catalog or the discovery system and ensuring that all links were operational: “[d]et är så trööstlöst med länkar som inte leder någon vart” (R10).<sup>54</sup> The apparent need to use a different

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<sup>52</sup> “It's not weeding since we didn't own the material.”

<sup>53</sup> “We've had to actively weed now, trying to track down this material and remove it. Links die, agencies rebuild their webpages.”

<sup>54</sup> “It is hopeless with links that lead to nowhere.”

term for this kind of practice speaks of the gaps in vocabulary when describing digital collection management. Furthermore, instead of describing the act of canceling subscriptions as e-weeding, Respondent 9 described it as “deactivation”. Thus the respondents were found to use alternative terms and synonyms of the term “weeding”, something that is very common according to Johnson (2009).

A third factor that was identified as a way to conceptualize e-weeding was the ability to manipulate certain posts in library discovery systems to rank and order search result lists. Unwanted resources can be deactivated in a link resolver, meaning that they are hidden from the view of the people using the discovery system for information retrieval. This was however presented as an insurmountable task to do manually within large e-collections: “[o]m man tänker att man köper 200,000 böcker och vi satt och dolde det, men det har vi ju inte tid att sätta oss in i” (R4).<sup>55</sup>

As can be observed from the beginning of this chapter, respondents struggled with conceptualizing the idea of e-weeding. Moreover, the newness of this topic is reflected in previous literature on digital collection management (see Larson & Boon, 2012; Waugh et al., 2015). The field is so new in fact, that some respondents identified gaps in their own knowledge on how they would go about conducting an e-weeding project.

Jag måste tänka efter ens hur man gör när man tar bort en e-bok? För det är klart man då tar man bort den ur Libris om man tar bort det ur sin lokala katalog. Men var ligger den då?<sup>56</sup> (R2)

### **6.6.2 E-weeding: to conduct it or not to conduct it?**

Two reasons that academic libraries do not conduct e-weeding in any systematic way was identified in the interviews. The first one is the intangibility of e-resources; it does not take up any physical space and therefore the need to e-weed does not appear in the same way as with traditional weeding: “Det syns inte på samma sätt så det finns inte riktigt samma behov av plocka bort heller då” (R3).<sup>57</sup>

One of the main motivations for print weeding found among respondents was to make room in the library space, either for books or other library activities (see McAllister & Scherlen, 2017) so it was natural that respondents highlighted this aspect. When there is trouble squeezing in books on a shelf there is a tangible problem, but this is not the case with e-weeding. Managing digital collections is intangible (Kennedy, 2005) and therefore librarians’ have been called to cultivate their skills in this area (Ward, 2015) since this aspect of print weeding that cannot be applied to e-weeding. Not paying attention to growing e-collections and leaving them be can be seen as an echo of the

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<sup>55</sup> “If you imagine buying 200,000 books and then having to hide them, we don’t have time to do that.”

<sup>56</sup> “I have to think about how to even go about removing an e-book? You delete it from Libris and remove it from your local catalog. But where is it then?”

<sup>57</sup> “It is not visible in the same way, then there’s not really a need to remove it either.”

problems libraries have had earlier with the uncaredful use of second storage spaces, as was discussed in 6.3 Related library practices.

The second reason for not conducting e-weeding is time: “[i]t is not our most urgent collection issue (R7)”. Generally, the respondents seemed to demonstrate low motivation due to the lack of time and the intangibility of digital material. Respondents described that the running of a functional library required the prioritization of a lot of tasks: “With weeding in general it’s prioritizing time and it’s harder to see the impact that the e-material would have” (R5). One of the respondents even claimed “[m]an kan kosta på sig att helt enkelt inte gallra det för att [...] det får inga konsekvenser egentligen” (R1).<sup>58</sup> In the future, when e-collections have grown even larger, they will require management in the form of weeding according to Larson and Boon (2012). Therefore, considering e-weeding as inconsequential such that e-weeding can be omitted without repercussions is not supported by previous literature.

In general among respondents there was no sense of urgency when considering issues that might spring from overlooking e-weeding; “[i]t’s not perceived as a problem” (R7), “[w]e haven’t really been discussing this” (R9), “[r]egarding e-weeding of perpetual owned e-books, it’s nearly a non issue at the moment” (R6). In addition, strategically managing e-collections through e-weeding was not done unless e-collections started to present problems, for either users or librarians.

They are not in the way [...] so we don’t do so much about them. Until they maybe make a problem and we have a lot of support issues with some kind of collection and then like in that one case we said, “OK, let’s remove them.”  
(R7)

On the other hand, one thing that respondents did consider as meritorious and beneficial of conducting e-weeding, was the objective to keep a neat and tidy library catalog. Larson and Boon (2012) also reiterate this objective for e-weeding, claiming that irrespective of format there is a need to differentiate high-quality material. It is of great importance what material shows up in library discovery search systems, since that is how users interact with the collections in the library according to the respondents. A discovery system integrates the library’s physical collection as well as subscription material and other things only accessed through the internet in one search engine (Rubin, 2016), so there is great heterogeneity amongst the types of resources that users can encounter.

As long as it’s not a great number of titles and [...] in a negative way is sort of makes it hard to find the other titles in the Discovery System. (R5)

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<sup>58</sup> “You can afford not to weed because it has no consequences.”

Ska man gallra en e-resurs så dels är det pengarna som avgör, men där kan det ju vara så att man döljer någonting för att få en bättre samling. Få bort någonting som stör eller som gör att användarna får kanske upplevelse att man har inte rätt saker.<sup>59</sup> (R3)

Even though most respondents agreed that a cluttered catalog, and by extension search lists in the discovery system, were counterproductive for the library and their users, one respondent opined that it was primarily librarians who had issues with cluttered catalogs: “[d]et är ju katalogisatörerna och andra bibliotekarier som blir störda av att det finns en massa poster, inte studenterna eller låntagarna” (R4).<sup>60</sup> However, this notion is in conflict with earlier research which states that irrelevant titles are distracting for users (Larson & Boon, 2012) and that outdated e-books create a cluttered image of the library when they flood the top spots in search results (Waugh et al., 2015). Thus, having old, obsolete, irrelevant material affects the opinion users might have of the library in a negative way. Search result lists that retrieve a lot of obsolete e-material could be considered as damaging to the library’s reputation, the same as having shelves filled with ugly, old and worn material. It is because of this that Larson and Boon (2012) postulate that libraries need to weed in order to keep collections current and relevant, separating “the wheat from the chaff” (p. 51).

### 6.6.3 What can e-weeding criteria be?

As can be seen in the previous section, different criteria guide print weeding decisions in comparison to e-weeding criteria. Since this thesis focuses on e-weeding, a considerable amount of time was dedicated to explore e-weeding and possible e-weeding criteria in the interviews. In the same vein as with print weeding, both qualitative criteria such as MUSTIE (Larson & Boon, 2012) and quantitative criteria such as the Slote method (Slote, 1997) were identified by most respondents.

Firstly, the use of statistics were upheld as a useful way to evaluate e-resources and determining candidates for e-weeding.

And one way of seeing if it’s relevant is, is it being used? There are other problems connected to usage of e-resources. How much is enough usage? And [...] what’s the lowest count for it to be used? Or is it just used during a specific course and not the rest of the year? (R6)

A quantitative approach to weeding is currently standard practice and contemporary researchers have identified it as the approach that produces the most effective results (Van der Veer Martens, 2022). Due to the nature of electronic material, it is also easy to produce use statistics, as identified by Respondent 9:

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<sup>59</sup> “Budget decides if you weed an e-resource, but you can also hide stuff to get a better collection. Take something out that bothers the users or makes them get the impression that you have the wrong things.”

<sup>60</sup> “It is catalogers and other librarians that are bothered by there being lots of records, not students or patrons.”

It's easier to get hold of usage statistics when it comes to e-books. You can [...] see how many times the book has been opened and how during which days of the year. And sometimes you can also see how long someone has been using a book.

Therefore, respondents seemed to consider use statistics as the most prominent and convenient criteria when it came to e-weeding. Since every search and download in e-books are recorded in use logs (Suseela, 2011) there is no risk of "hidden" usage as with print where only check-outs are registered and not in-library use. The statistics on e-resources can therefore be considered more reliable than print material statistics.

Respondents also discussed what can be identified as qualitative MUSTIE criteria for e-weeding. This is also reflected in Berglind et al. (2020) who state that reliance on mainly quantitative, statistical criteria for e-weeding can be harmful for specialized libraries since they feel responsibility for preserving material despite the amount of use. In addition, book-reliant disciplines within the humanities at academic libraries risk suffering under solely statistical weeding projects (see McAllister & Scherlen, 2017). One respondent stated that they did not use any statistics at all to evaluate e-resources: "[f]or weeding it's just if it's not up to date. We don't look into how many times it has been used" (R8). This was noteworthy since it contradicted other respondents who upheld the employment of use statistics. The use of this qualitative MUSTIE aspect (see Larson & Boon, 2012) was referred to by another respondent as a criteria for e-weeding.

[I]f we have purchased books for a couple of years [...] the same book will be available in a new edition and when the new edition comes then this should be perhaps the book that could or should be used and that could be a criteria of weeding. (R9)

Respondent 6 also described a scenario in which the contents of a book has become harmful because of development in science and medicine. This indicated a consideration for the MUSTIE misleading aspect (see Larson & Boon, 2012).

[S]cience has moved on. It's not relevant anymore. And it would be dangerous if someone read this medical advice because you shouldn't do this anymore. I mean, of course we would take that into consideration and see if well, then perhaps that should be weeded. (R6)

The visual appearance of a resource can also be used as a criteria for e-weeding: "[j]a framförallt om det är gammalt och skräpigt och så så ska vi inte ha det där" (R1).<sup>61</sup> The words used are "old" and "rubbish", which pertains to MUSTIE criteria misleading and trivial or irrelevant (see Larson & Boon, 2012). The MUSTIE criteria were reimagined for the sake of this thesis to encompass e-collection issues (see Table 4.1: Criterias and aspects of print weeding reimagined in the context of e-weeding, p. 23). The ugly criteria was extended to also include data degradation for files and file formats, something that was also identified by one respondent: "[d]et kan ju vara någon sån här

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<sup>61</sup> "If it's old and rubbish then we should not keep it."

formatproblematik att e-böcker tidigare erbjuds i ett format som numer har förfallit” (R1).<sup>62</sup>

Another risk with only relying on statistics is to lose sight of the national information mediation when each library only e-weed based on their own statistics (Berglind et al., 2020). The Slotearian motto that past use predicts future use (Slote, 1997) was challenged by Respondent 9:

But then, of course, perhaps, if the books haven't [...] been used at all we could weed them, but I think we would hesitate [...] because you don't really know when a book can be used.

When considering electronic material however, there are technical aspects that cannot be applied to print resources. This could be seen in the interviews as well, where the technical aspects provided motivation for conducting e-weeding.

Det är hela tiden teknikutveckling och där tror jag att e-gallring kommer bli relevant i att man kanske ja tar den senaste versionen, säkerställer den.<sup>63</sup> (R10)

I mean if an e-book were to break [...] it's not readable anymore, the technology is ancient, I mean that could be a reason for weeding, I would assume. (R6)

Although format is relevant to discussions about weeding and e-weeding, several of the respondents upheld that it does not matter what format a book or resource has – it is the contents that are to be examined (see Gluschko, 2013).

[D]et är ju innehållet som räknas. Det är inte vilken fysisk form de kommer i, det tror jag är jätteviktigt att tänka på att det spelar liksom ingen roll utan det är innehållet.<sup>64</sup> (R4)

Some respondents questioned whether it was even relevant to have separate weeding criteria when it came to digital material: “I mean, why wouldn't you apply the same criteria to an e-book if you have criterias for weeding?” (R6). Still, as respondents revealed concerns related to technology, there were actually some aspects to e-weeding that warranted the distinction between dealing with electronic and print resources. In general, however, e-resources were not considered material to be evaluated too severely. Since there were no perceived repercussions, the libraries did not have to be as strict with e-material: “[d]et är ju möjligtvis skillnaden är att man inte bedömer e-resurser lika hårt. Så länge inte de den inte är någon specifik kostnad för att behålla dem” (R3).<sup>65</sup>

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<sup>62</sup> “There might be formatting issues where previous e-books were in a format that has degraded.”

<sup>63</sup> “There are constant technical advancements and I think e-weeding will be relevant there, in that you preserve the latest version.”

<sup>64</sup> “It is the content that matters. It is not which physical form it takes. I believe that is really important, it's the content that matters.”

<sup>65</sup> “Possibly the difference is that you don't judge e-resources as hard. As long as they do not infer any specific cost you can keep them.”

#### 6.6.4 Is e-weeding conducted today?

Even though e-weeding was difficult to characterize, some respondents had practical examples of e-weeding projects that had been conducted at their libraries.

Där har vi fått jobba en del aktivt med gallra nu försöka spåra upp det här materialet och ta bort [...] länkar dör, myndigheter bygger om sina webbplatser. Grejer blev plötsligt inte längre gratis tillgängliga utan man har kommit på att det där kan jag sälja med lite förtjänst [...] en del av det har bara tappat sin aktualitet. Det har kommit nyare motsvarigheter. Så där försöker vi ju aktivt gallra undan och framförallt också just därför att det ligger i vårt bibliotekssystem, där ska det kanske inte riktigt befinna sig. (R1)<sup>66</sup>

Respondent 7 also described that they have e-weeded one collection which was “one of the absolute first e-book collections that we purchased for the library”. The aspect of time is pertinent to this quote, it illustrates how sometimes agreements that seem beneficial at the time end up being a future hindrance. No one can predict the future so even though libraries strike advantageous deals for current users, future users could consider them lacking because of technological advancements.

Another example of e-weeding was presented by Respondent 3:

De var helt enkelt döda [...] användningsmässigt samtidigt som vi betalar en plattformsavgift. För det var det enda vi hade på den plattformen. Så det gick kanske 500 dollar per år dit. Samtidigt som det inte användes och det inte fungerade. Så då kontaktade jag förlaget och sa att vi inte är intresserade längre att behålla dem och då försvinner plattformsavgifter och får ingen access för oss längre. Så de är ju helt gallrade och borta.<sup>67</sup>

The reason for e-weeding in this case was that the cost of continuing to pay for a certain platform was too high in relation to its low usage statistics. This is in line with a quantitative, statistical view on usage that Slote premiers (Slote, 1997). Respondent 3 also postulated that if there are no economical reasons for weeding it is easier to keep material in the system. This seems to be the approach of most libraries: “[n]o one cares and they don’t make any problem” (R7). This passive approach to e-weeding is adopted because it is not perceived as a tangible problem, which was discussed previously in 6.5.2 What are the objectives of weeding print material?

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<sup>66</sup> “We’ve had to actively weed now, trying to track down this material and remove it. Links die, agencies rebuild their webpages. Things are suddenly not free of access anymore but you’ve realized that you can sell some of that with a profit, and some of it simply has lost appropriateness. There are newer equivalents. We try to actively weed there since that is not supposed to be in our library systems.”

<sup>67</sup> “They were simply dead from a usage perspective at the same time that we paid a platform fee. Because that was the only thing we had on that platform but it cost maybe 500 dollars per year. But the material was not used and did not work. So I contacted the publisher and said that we are not interested in keeping them, and so the platform fee went away and we don’t have access anymore. They are completely weeded.”

One respondent had a simple explanation for why they did not conduct e-weeding: “[d]ärför vi har inget” (R2).<sup>68</sup> This library claimed to not have any digital material, however it surfaced during the rest of the interview that they in fact managed subscriptions of databases and e-journals. This indicates that some Swedish academic libraries manage e-resources without them being aware of it, which entails that they might be e-weeding without realizing as well. The quote from Respondent 2 is also a very good reminder that academic libraries in Sweden are very diverse in terms of collections and resources, both technical and financial. These factors will naturally affect their ability and motivation to e-weed (see Berglind et al., 2020).

Sometimes e-weeding is out of the library’s hands for reasons other than lack of opportunity. Waugh et al. (2015) have discussed the lack of control libraries afford since commercial vendors dictate what material is added or removed in a collection. When accessing resources through Big Deals or other license agreements, the vendors or publishers are the ones in control. One respondent described this kind of practice as weeding being done by someone else on the behalf of the library.

Most of e-books are available through e-book packages that we are subscribed to, so we cannot really do anything about what kind of books is in the book package. We can remove them so our students cannot see them, but they will still be in this package and some titles will be removed by the publishers instead. (R8)

Apart from a few examples of e-weeding projects in the interviews, the practice did not seem fixed in this sample of academic libraries. This is also supported by the fact that only eight policy documents in the quantitative analysis mentioned weeding digital material in any capacity (see Figure 6.9). 15 of the total 25 did not mention or allude to what can be considered e-weeding, whereas three mentioned it extensively.

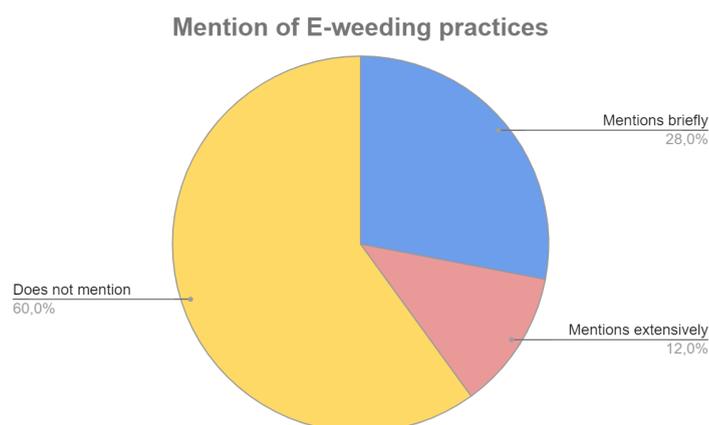


Figure 6.9: Mention of E-weeding practices. The figure shows the amount of policy documents that mention e-weeding practices.

The lack of information about e-weeding in the policy document is logical,

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<sup>68</sup> “Because we have none.”

considering that the documents were described by the majority of respondents as reflective of their practices rather than prescribed goals to be reached (see more in 6.2 Strategic media policy documents). If the policy documents were of a more aspirational nature, perhaps more e-weeding aspects would have been included.

### 6.6.5 What is the future of e-weeding at academic libraries?

The idea of e-weeding was not disregarded by the interview respondents. Some were open and interested in the prospect of incorporating e-weeding into their practices. Respondent 3 even gave specific examples of how e-weeding could be conducted:

Jag kan tänka mig att det kan ju vara någonting man får fundera på i framtiden. Och då kanske det inte är så att man gallrar helt utan då kanske snarare att man ser över ska man ha, att man bara har en e-boks MARC-post på senaste upplagan eller nåt sånt där för att få se till att den hamnar längst upp i rankningen vid sökningar.<sup>69</sup>

Tengstam (February 2020) also suggests using MARC as a tool to identify possible e-weeding candidates, however the practical ways in which technical tools can be used to facilitate e-weeding needs to be further investigated. Also, the fact that the topic of e-weeding surfaced at an LIS conference two years ago bode well for the future of e-weeding. It is a sign that issues with e-collections are starting to get recognized by LIS professionals in the field, not only by researchers and students such as in this study.

As apparent from earlier sections in this chapter, e-weeding at academic libraries is not conducted systematically. Still, concepts such as university policy modifications, e-resource collection size and the demand for more e-resources at academic libraries was raised by respondents as the basis for the future of e-weeding. When asked to think of future scenarios where e-weeding might be a part of regular library practices however, Respondent 1 replied:

Det är klart att om högskolan skulle drastiskt ändra inriktning på sin utbildning. Men varför skulle vi då vilja ta bort e-böcker? De tar ingen plats. Är man inte intresserad av dem så söker man inte efter dem, då hittar man dem inte. Det nästan så att högskolan skulle behöva inte bara ändra inriktning, utan faktiskt ändra åsikt också att man börjar bedöma att de här böckerna är olämpliga av någon anledning. Ja, det är klart att om det visar sig att det här var bygger på dålig vetenskap, ja, då skulle man väl kunna tänka sig att gallra kanske, men du hör jag famlar lite grann här nu.<sup>70</sup>

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<sup>69</sup> "I can imagine it is something you have to think about in the future. Maybe you don't weed completely but rather getting an overview of what you should have and make sure you only have one MARC record of the latest edition of an e-book and make sure that it is ranked at the top when searching."

<sup>70</sup> "If the university were to drastically change direction in their education. But why would we want to remove e-books? They don't take up any space. If you are not interested you don't search for them, you don't find them. The university would need to not only change direction but change opinions and start judging these books as inadvisable for some reason. Of course, if they were built on faulty science then you might weed them, but I am struggling to find a reason."

According to Respondent 1, despite the struggle to come up with a likely scenario that would entail the need to e-weed, the reason for e-weeding would stem from changes in university policy. The idea of policy affecting practice is reflected in the literature by Johnson (2009) and Vnuk (2015). Policy documents have the possibility to establish and communicate the library's responsibility when it comes to weeding (Johnson, 2009), therefore it could be a place to start when wanting to implement new aspects of library practices.

The future of e-materials also seems bright. Digital collections at academic libraries show no signs of decreasing in popularity. In fact, the opposite was highlighted by the respondents when discussing the influence of the Covid-19 pandemic on information behavior – more and more users want e-resources. This reflected Johnson's (2009) postulation that digital material is cemented at academic libraries and Albitz et al.'s (2014) claim that academic library users prefer e-resources because of instantaneous access. Digital collection management can therefore be seen to be highly needed and practices surrounding it will come to evolve. One side to this is, according to Evans and Saponaro (2012), that librarians should be skilled at handling legal issues and possess technical skills related to e-resources in order to adequately manage e-collections.

The sheer magnitude of digital material has been identified by the respondents as a motivation to conduct e-weeding in the future: “[w]e have had e-resources now for 20 years and maybe we haven't come so far that it's has become a problem. Maybe in 50 years then our catalog will be clogged with old editions and then we have to weed e-resources” (R7). Waugh et al. (2015) have stated that academic librarians have been solely focused on acquiring and building e-collections since they first started to be available, and this has distracted them from considering how to uphold an e-collection of quality. This sentiment is echoed in the quote above where Respondent 7 postulates that some time in the future, when an arbitrarily sized e-collection is achieved, it might be time to start considering e-weeding. The main objective with e-weeding at that stage would be to keep a tidy discovery system and to make sure the search results are not clogged with irrelevant material (see Larson & Boon, 2012; Waugh et al., 2015).

Still, a few respondents were hesitant towards the prospect of dedicating time and money towards e-weeding, when there are other pressing issues to tackle.

[D]et finns ju så mycket som man skulle vilja göra om det fanns mer tid och pengar. [...]. Det är inte så att jag drömmer om en välstädad e-boksamling.<sup>71</sup>  
(R4)

In one interview, when the respondent was specifically asked about the possibility of including e-weeding in their media policy they responded thus: “[n]ot when it comes to e-weeding. I don't think that will be of importance, if I'm honest” (R5). Of course, every library is different and has their own unique challenges, but Okogwu and Ekere (2018) declare that there is a great need for specifically formulated and developed policies for e-resources. The role that an

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<sup>71</sup> “There are so many things you would want to do if there was more time and money. I don't dream of a neat e-book collection.”

e-weeding policy document could play in digital collection management is to raise awareness of the legal and technical aspects related to e-collections (see Witten et al., 2010). In contrast with Respondent 5, Respondent 3 seemed to acknowledge the need to incorporate aspects of e-weeding into their policy documents: “[o]m fem, tio år kan jag tänka mig att det står en annan text runt det än vad det gör idag”.<sup>72</sup>

Respondent 5 summarized the need for e-weeding and the place it might take in the future by referring to the growing size of e-collections:

Perhaps now is the time when we start to see, when we start to build up these big collections of e-material that we need to look into them more closely and and find the needs for weeding. (R5)

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<sup>72</sup> “I can imagine there being another text in place in five, ten years.”

## 7. Conclusions

RQ1: Amongst the 25 policy documents included in this study, e-weeding is mentioned briefly in seven, mentioned extensively in three and not mentioned at all in 16 documents. However, it should be noted that the use of the word “extensively” was influenced by the lack of information present in the other documents. The bar was very low for the policy documents to be considered as “extensive” in relation to how it detailed e-weeding. Thus, as e-weeding can be considered an infrequently mentioned topic, it indicates that the whole concept of e-weeding is not an acknowledged or prioritized academic library practice.

RQ2: Based on the ten semi-structured interviews with LIS professionals working at academic libraries, academic librarians are primarily neutral towards weeding and mainly express negative sentiments concerning the practical difficulties of conducting the task. Main concerns were about protecting themselves and justifying library practices to others. The respondents were more skeptical and hesitant when it came to e-weeding as digital materials were considered more expensive and harder to obtain than print materials. Also, e-weeding was not perceived as a pressing issue since the amount of digital material is not directly visible. The respondents were not concordant in defining what constitutes e-weeding. Still, they were conducting forms of e-weeding at their libraries, for example deactivating links and unsubscribing to e-journals. Consequently, despite expert academic librarians dealing with digital collection management in their everyday practices, e-weeding is still not part of discussions. This motivates further studies within this domain.

RQ3: Print weeding criteria as portrayed in the policy documents matched the statements made by the interview respondents. Respondents highlighted the use of qualitative criteria to evaluate material considered for weeding, which was reflected in the policy documents. Additionally, another significant similarity between the policy documents and the interview responses was the lack of e-weeding being described. E-weeding was not prominent in the policy documents and according to the respondents it was also not something widely conducted at academic libraries. However, weeding objectives for larger print weeding projects in reality did not align with the mission statements in the policy documents. The documents advocated for the provision of relevant and quality based collections for their users but larger weeding projects were mostly driven by the need for space.

### 7.1 Discussion: Developing e-weeding at academic libraries

*Why is e-weeding needed as a term? What problems does it solve?*

E-weeding can be understood from the starting point of print weeding, the same objectives and criteria can be translated to e-weeding. This tendency was very prevalent in the interviews. When the respondents pondered what e-weeding might be, what tasks it would entail, they fell back into language

such as “deactivating”, “unsubscribing” and in one remarkable case “register management” was proposed to denote the act of keeping a tidy library catalog. The apparent need to use a multitude of different words for this kind of practice speaks of the gaps in vocabulary when describing digital collection management. It is this gap that the term e-weeding could fill.

When efforts are made towards creating national weeding frameworks in Sweden (see Berglind et al., 2020) it is of utmost importance that there is common vocabulary and understanding of relevant aspects. If there is lack of consensus around what weeding and e-weeding means, miscommunications could lead to material being irrevocably lost. Even though academic libraries are no longer the storage houses of information they once were (Johnson, 2009) it is still clear that librarians care about information and their users’ right to access it and therefore caution must be taken every step of the way.

Weeding is a word intuitively understood by librarians, as well as most users. As the prefix “e” has been given different media formats and resources during the last decades to describe a digital format, extending this practice to weeding is the natural subsequent step. By establishing a common LIS term for digital weeding specifically, it creates clarity in discussion and practice. In one interview, the argument was made that unsubscribing to e-journals was not considered a form of weeding, but rather collection management. This is correct since weeding is a form of collection management, but granularity is lost when such a broad term is used for something that could be more specified. Instead of describing the process as general collection management one could describe the task as e-weeding electronic journals.

#### *How can e-weeding make a difference in academic library practices?*

From our results it can be observed that there are two main types of weeding objectives at Swedish academic libraries; weeding for space and weeding for quality. Previous researchers have strongly advocated for the objective of weeding for quality, for example Vnuk (2015) states that the core of a librarians profession is to provide well-maintained collections that are weeded often. The objective of maintaining quality collections was also presented in several of the policy documents as overarching mission statements, which largely correlated with statements from the interview respondents. Furthermore, the documents and respondents also revealed that their libraries preferred and in many cases opted for the acquisition of e-resources over print, which means that e-collections will only continue to grow. Quality e-collections require weeding just as equally as print collections (Larson & Boon, 2012) – therefore, for Swedish academic libraries to be able to focus on developing their e-collections in accordance with their policy mission statements, e-collections will require weeding at some point.

However, the objective of weeding for space was brought up in several interviews and indicated that some weeding projects were not in alignment with the library’s own policies. Previous research has heavily endorsed the employment of the “weed for quality” objective (see Albitz et al., 2014; Johnson, 2009; Vnuk, 2015; Ward, 2015) making objectives such as weeding for space secondary. Therefore, an ideal weeding objective for all kinds of

projects should be based on collection quality so as to uphold the promise of well-tailored collections. In this way, e-weeding can be justified since it is a method of maintaining e-collections.

Furthermore, the upholding of good collection quality as dictated by policy would also intimate the maintenance of user friendly search result lists within e-collections. Larson and Boon (2012) explain that users react negatively to cluttered search lists where irrelevant and outdated material appears. They further state that users do not expect to waste their time sifting through material and expect the same care attributed to e-collections as with print collections (Larson & Boon, 2012). To have old, obsolete, irrelevant material at the top of search result lists risks having a negative impact on the user's opinion of the library as a trustworthy and qualitative information source. A solution to this problem is for LIS professionals to prioritize the management of their information systems in order to ensure e-collection quality, for the sake of their users.

Some respondents in our interviews described the need to promote e-collections to their users since there seemed to be little awareness of the amount of e-resources the libraries provided. According to one respondent, some users cannot distinguish between the library e-collections and resources available on the web. Uncluttered search results lists that are easy to peruse would indicate the value of the information contained within library e-collections in comparison to randomly assembled lists generated by for example Google. Therefore, when promoting e-collections, relevantly organized e-resources that are accessible and of quality would facilitate user interest by reflecting the information goals of the collections.

*How could academic libraries go about forming a framework for e-weeding and formulating e-weeding criterias?*

Our respondents identified duplicates and lost materials as things to be considered for print weeding, however these are not considered weeding criteria in previous literature (see Albitz et al., 2014; Larson & Boon, 2012; Ward, 2015). It is not necessarily a concern that Swedish academic libraries and previous research is not unified in what constitutes legitimate weeding criteria, the most important concern is that all Swedish academic libraries amongst themselves have a common definition.

In this thesis, qualitative and quantitative types of weeding criteria have been described. Amongst the respondents there did not seem to be any singular criteria that was preferred over another, although amount of usage was central in most cases. The librarians seemed to employ whatever criteria and means of evaluating a resource necessary in order to most accurately determine if material ought to be weeded. This speaks of LIS professionals' skills with maintaining quality collections (see Vnuk, 2015); sometimes judgment calls need to be made and librarians already possess the competence for the task. However, we want to call two aspects to attention that could become central to e-weeding practices: involving subject experts and producing usage statistics.

Although librarians and LIS professionals are trained and experienced in matters of collection management, it is still very difficult to understand and anticipate what user communities need (see Slote, 1997). Currently, Swedish academic libraries do not seem to tap into the resource that is their own user community when they are conducting weeding. When libraries involve subject experts and community members they gain insight and avoid the risk of weeding potential useful material (McAllister & Scherlen, 2017), resulting in better tailored library collections. Libraries that declare their primary objective of weeding as the attainment of quality collections might consider this as a way to further improve their practices. Exactly what the collaboration between librarians and users should resemble needs to be up to the individual libraries. As seen in this study, no academic library is exactly the same, all have different resources at their disposal and must therefore determine what is achievable within their own circumstances.

Qualitative weeding, such as involving subject experts, is said to be a longer process compared to the process of a quantitative weeding approach (McAllister & Scherlen, 2017). To complement this slow moving qualitative process it would be practical and time efficient to produce usage statistics for e-resources. Due to the nature of e-resources, generating statistics on how many downloads, views and searches individual resources or general databases have can be expedited with ease (Waugh, 2015). However, there are risks involved if libraries rely too much on usage statistics produced by commercial vendors since they can deliberately misrepresent usage to motivate libraries to continue their subscriptions (see Tripathi & Jeevan, 2013). Therefore it is important to consider the access and control over producing usage statistics before entering any licenses agreements or accepting Big Deals.

By tackling the issue of e-weeding criteria from both a qualitative and quantitative perspective, where user involvement for evaluation is compensated by rapidly produced usage statistics, libraries can get a holistic view on their collections and what can be candidates for weeding. These approaches complement each other and ensure that library collections are thoroughly evaluated before weeding.

Taking a cue from one of the respondents in this study, the following four aspects could be proposed as general weeding criteria: "Får inte läsa, kan inte läsa, vill inte läsa eller borde inte läsa" (R1).<sup>73</sup> These also transcend the aspect of format and could be used for both print and digital material. Since these aspects are very broad and general, more specialized routines and guidelines need to be established for practical use. Among some libraries in this study, one overarching policy followed up by other how-to guides that were tailored to different subject areas and special concerns within disciplines were employed. This could be a practical solution to the issues of having either too flexible or too restrictive policy documents.

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<sup>73</sup> "Not allowed to read, cannot read, doesn't want to read, shouldn't read."

*What role could policy documents play for the implementation of e-weeding in the future?*

Overall, it can be observed from the interview respondents that weeding objectives and mission statements play a very central role in guiding library practices. Since Johnson (2009) states that successful weeding practices are consistent with the policy goals, it can be postulated that if e-weeding practices are also formalized within policy documents, the rate of success for e-collection management would be higher.

Some respondents claimed that despite a desire to weed more than they currently do, it could not be prioritized over other library tasks. In addition, the policy documents were discussed by respondents as a way of formalizing their practices such that these activities were given importance. Johnson (2009) and Vnuk (2015) recommend having written weeding guidelines in policy documents as a means of establishing weeding practices. Thus, including e-weeding practices in official policy documents will solidify the need to prioritize weeding. At the same time, it is understandable that other library practices are prioritized ahead of weeding since the library would cease to function should these be overlooked.

The issue of prioritizing time for weeding and e-weeding in particular was of great concern for respondents and it was clear that print weeding practices required more deliberation before e-weeding could be considered. If an academic library had systematic practices in place for print weeding, such that concerns around this practice have been resolved, more time could be allocated to prioritize the establishment of e-weeding practices.

The manifestation of e-weeding goals and practices in a published document would protect the liability of librarians that conduct e-weeding projects. One interview respondent described librarians feeling safer about their decisions because of the existence of a policy to guide their practices. Including weeding in collection development policies also serves to inform the public about how weeding projects are conducted as well as acting as a defense against public uproar (Vnuk, 2015).

Moreover, as was revealed in the policies and interviews, weeding is closely related to the practice of storage (in Swedish “magasinerings”). If there was access to some form of e-storage, a digital counterpart to closed stacks, where purchased e-material can be archived and subscriptions deactivated without the final decision of complete removal, e-weeding practices might be considered more seriously. Still, it can be questioned how e-storage would affect e-weeding. In the print world, libraries are comfortable with putting materials in their closed stacks and then weed when usage continues to be low. Considering this phenomenon, would the existence of an e-storage mean that more librarians would be open to conducting e-weeding projects or would it just become another compost pile?

*What issues need to be addressed before establishing national frameworks for weeding and e-weeding?*

It can be observed from our interviews that there is still a long way to go until Swedish academic libraries are ready to start planning and formulating frameworks and criteria to support national e-weeding practices. There are still some critical issues to discuss and solutions to work out. However, the movement to nationalize and standardize weeding in Sweden (see Berglind et al., 2020) could be an indication that a shared definition of weeding is slowly taking root among Swedish academic librarians. This could entail that weeding approaches and criteria also will start to develop some form of standardization. The lack of time dedicated to weeding and e-weeding would need to be addressed before national weeding projects can be taken any further. Johnson (2009) explains that productive weeding has been the result of sufficient time allocated for it, but in our interviews it was very clear that there was no time for weeding projects in general when other tasks felt more pressing.

One perceived risk with establishing a national framework for e-weeding is to create an artificial uniformity to library collections (see Berglind et al., 2020). However, this problem is already underway since academic libraries join consortia who negotiate Big Deals for all of the members (see Evans & Saponaro, 2012). Is there still room for libraries to have individual identities? How would that identity be enforced if everyone were to operate under the same framework of e-weeding? Today, some academic libraries are “pliktbibliotek” (National Library, 2021) and this is intrinsically woven into their own perception of the library identity and purpose, as can be seen in the interviews.

There were also worries within specialized libraries that felt responsible for their subjects. If something is weeded, does that mean it is not worth preserving? The answer to this is no, of course not. Respondents described it as a matter of space and resources for libraries if they have the capacity to keep material or not. When libraries do decide to weed, respondents explained that it should be in the comfort of knowing that they are not throwing out the last copy in Sweden. What is then needed from a national cooperation regarding e-weeding would be efforts to preserve what ought to be preserved regardless of the resources in terms of budget and space for each individual library.

*Concluding remarks*

One of our goals was to further evidence based practice through the results and contents of this thesis, without being prescriptive of what e-weeding should be and how it ought to be implemented. Throughout the study we have strived to provide an account of how e-weeding can be imagined and implemented at Swedish academic libraries, as described by LIS professionals currently working at these institutions. During discussions about e-weeding some interview participants seemingly started to see a future need of incorporating it in their practices. Through these discussions we may have influenced the situation and planted a seed of thought about e-weeding. Hopefully, discussions around digital collection management continue and libraries benefit from the concept and term e-weeding in future.

## 7.2 Future research

There are many different routes that investigations within the topic of digital collection management and e-weeding can take in the future. A similar mixed method study design as employed in this study could be used for examining public library practices or perhaps a comparative study of academic libraries on an international scale.

The relationship between the university and its library can also be discussed – is it really within the university’s power to force the library to adhere to new practices? And how would this affect weeding and e-weeding? Of course, the academic library’s purpose is to serve its users and therefore it would naturally change along with university practices, but to what extent should the library concede?

Future research can also examine the technical aspect to digital collection management and e-weeding; evaluating different solutions for manipulating search results lists in discovery systems or the creation of digital storage spaces (*e-magasiner*ing).

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# Appendix A. Consent form for interviews



HÖGSKOLAN I BORÅS

Faculty of Librarianship, Information, 2022-03-01

Education and IT

Beate Granström, Student

Nadia Häller, Student

## Consent for the collection and processing of personal data

As part of the course Master's Thesis, we are conducting a study to gain insight into how weeding practices regarding electronic material are described and enacted at Swedish academic libraries.

We who are conducting the study would like you to provide certain information about your profession and experience working at an academic library, more specifically your understanding of digital collection management with respect to your sentiments and practices of weeding of both print and digital material.

The personal data will be used to develop a comprehensive idea about the current reflections and practices of digital collection management and the weeding of digital resources at Swedish academic libraries. If the findings turn out to be beneficial for the academic community the empirical material could be included in a research publication.

The University of Borås is the controller of the processing, and the legal basis for the processing is article 6.1 (a) in the General Data Protection Regulation, GDPR, (consent).

The personal data will be used by us and may be made available to the teachers of the current course and central administrators at the university. The data may also be public documents, which means that anyone as a general rule may access it in accordance with the principle of free access to public records.

The personal data will be stored in the EU/EEA, or countries outside the EU/EEA that the EU Commission has determined to have an adequate level of protection, i.e. sufficiently high according to the GDPR. The data will be erased when it is no longer necessary.

The results of the study will be presented in an anonymised form, so that no data can be traced to you.

Your participation in this study is completely voluntary. If you consent to the processing of your personal data as described above, you may

withdraw your consent at any time whereby we will stop using your personal data. Because of legal requirements we may however be prevented from immediately erasing your personal data.

I hereby consent that University of Borås may collect and process my personal data as described above.

## Appendix B. Interview guide

Questions annotated with \* preceding them are the most important ones and were prioritized during the interviews.

### Opening

Hello there/Hi [name]! Welcome to this interview. My name is [author1] and I will be conducting the interview with you. My colleague will be recording and transcribing it. With that we can start the recording now.

Thank you for being a part of the data collection for our master thesis. We will be using only the audio from this recording. We will delete the recording of this interview at the end of the study when the thesis has been approved. If the findings turn out to be of benefit for the academic community the empirical material could be included in a research publication.

As stated in the consent form, any personal information you give us during this interview such as your name or the name of the library will not be included in our final Masters Thesis and any resulting publications. But we need it only for the purposes of this recording to ensure our academic accountability.

I would like to remind you that although you have formally agreed to do this interview via the consent form, you are free to withdraw consent at any time. In that case, all the material such as this recording and the transcripts of this interview will be deleted and omitted from the final thesis.

Shall we continue?

Do you have any questions before we jump in?

### Background

Could you start by stating your name, your job title, and the name of the institution you are working for?

How long have you been working at the library? In this specific role?

How would you describe your role at the library? Could you tell us, very briefly, in your own words, what kind of work you do on a daily basis?

\*How would you describe the library? In terms of size, location, user groups.

### Policy documents about collection management

Thank you for sharing your library's medieplan with us – we're going to talk about that for a bit. How frequently would you say that you consult the medieplan for your work? Often? Rarely? Once? Never?

What do you use them for when you consult them? What does it look like when you are consulting them?

What do you do with them?

\*Do you find the medieplan and guidelines helpful?

\*Do you see any differences between what is written in the medieplan and what happens in practice with collections?

\*If you could change the medieplan in any way, what would you add/remove?

How could they be more helpful?

Do you see any room for improvement?

\*What information have you gotten from the medieplan about gallring/weeding?

## **Weeding**

What does it mean for you to weed? How do you define it?

Complete removal?

Removing to a secondary location?

\*What are your experiences with the process of weeding at your library?

How do you go about it?

Is it systematic?

Who takes initiatives?

Who is ultimately responsible?

Is weeding just another task in your work or something extra?

How do you know when something is supposed to be weeded?

What criterias are used? Qualitative/quantitative

Has the process changed since you started working there?

\*What do you think about these weeding processes conducted at your library?

Do you agree with these methods and criteria? In what way?

Do you see any room for improvement?

Are people generally aware when things are removed?

Other librarians? Faculty? Users?

Do you think people should be informed/educated about this?

\*Have you ever experienced some sort of negative reaction as a result of weeding?

From other librarians?

From users/patrons? The public?

Have you also experienced positive reactions to weeding?

How do you think other librarians' feel about weeding?

Is it something you talk about with the other librarians?

What do you speak about?/Why do you not speak about it?

What are the sentiments in the group?

Do you think the language used when talking about this is important?

## **E-weeding**

\*What about digital material? Is this type of material included in your gallring/weeding practices?

Why? Why not?

\*Would you say that digital material is very different from physical material when you think about it in terms of weeding?

In what way? Are they similar/different?

\*What aspects of digital material do you think are (not) applicable to physical material?

\*Does your library weed digital material?

IF NO = Why? Why not? How come?

IF YES = What does the process look like when/if you are removing digital items from the collections?

How do you go about it?

Who takes initiatives?

Who is ultimately responsible?

Is it a team effort?

If you had to conduct digital weeding what would an ideal process look like to you?

Do you think your medieplan should include (more) information about e-collections and possibly digital weeding?

Why?

If e-collections grow, should you weed them?

Do you think weeding digital material should be included in the policies?

Why do you think it should/should not be included?

### **Summary**

\*According to you, what do you think is the main reason why academic libraries don't weed digital material?

What holds them back?

### **Conclusions**

Well, I think that's everything I wanted to talk about.

\*Is there anything you would like to add?

\*[author2], do you have any questions for [name]?

I can formally declare the interview over now. We can stop the recording now.

Thank you again for your time and have a nice day :)

## Appendix C. Coding manual for quantitative content analysis

DIMENSIONS	CODE Description
<b>Library collection type</b>	<p>From Albitz et al. (2014)</p> <ol style="list-style-type: none"> <li>1. Comprehensive – libraries that attempt to obtain and preserve as much information on as many subjects as possible/ vast intellectual warehouses of published scholarly information/ serve large comprehensive universities/ international in scope/ viewed as pinnacles of academic library collections/ weeding is not a common practice or priority with these libraries/ often students &amp; faculty are leading researchers in their field publishing at higher rates and bringing in more grant funding in comparison to students and faculty at other universities/ threshold library size = 2 million + volumes</li> <li>2. Research – 2nd largest level academic library/ Threshold size = between 500,00 and 2 million volumes/ provide strong breadth of coverage of the disciplines taught at the college/ built to meet the research needs of most faculty and students/ rely on other libraries for specialized material/ may be comprehensive in a few subject fields/ More selective than comprehensive/ geographically focused collections/ weeding is more common at these libraries in comparison to comprehensive/ more likely to discard out-of-date or little-used materials</li> <li>3. Teaching – 3rd level of academic library collections/ support institutions that focus on instruction rather than research/ Threshold size = less than 500,000 volumes/ contain most important books and primary scholarly journals in the institutions subject areas/ smaller budgets and staffing compared to research and comprehensive collections/ weeding much more common so that the collection remains focused on the needs of students for learning and is a large part of collection development/ focus on current materials discard out-of-date materials</li> <li>4. Specialized – academic institutions that focus on only one subject or field/ not colleges or institutions part of larger universities/ independent educational institutions/ possible comprehensive or research collection within one single discipline/ independent law schools, medical schools etc/ weeding involved at some level despite how the institutes greatly vary.</li> <li>5. Unclear</li> </ol>
<b>Consortia</b>	<ol style="list-style-type: none"> <li>1. BIBSAM</li> <li>2. Svensk Nationell Datatjänst</li> <li>3. Other</li> <li>4. Does not mention</li> </ol>
<b>Mission statement</b>	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
<b>Weeding</b>	<ol style="list-style-type: none"> <li>1. Mentions briefly</li> </ol>

	<ol style="list-style-type: none"> <li>2. Mentions extensively</li> <li>3. Does not include</li> </ol>
<b>Systematic weeding guidelines</b>	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
<b>Definition of weeding</b>	<ol style="list-style-type: none"> <li>1. Complete removal and disposal</li> <li>2. Transfer to secondary storage</li> <li>3. A mix between removal and storage</li> <li>4. No definition</li> <li>5. Other</li> </ol>
<b>Refers to MUSTIE criteria: Misleading, Ugly, Superseded, Trivial, Irrelevant, Found Elsewhere.</b>	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
<b>Refers to quant criteria: age, circulation statistics.</b>	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
<b>Community involvement with weeding</b>	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
<b>E-weeding</b>	<ol style="list-style-type: none"> <li>1. Mention briefly</li> <li>2. Mention extensively</li> <li>3. Does not mention</li> </ol>

## Appendix D. Coding manual for qualitative content analysis

THEMES	MEMOS/SUMMARIES (THEME MEANINGS)
<b>Print Weeding</b>	Weeding objectives (reasons for/ for not weeding, size of collection, space issues, time, external pressure from university).
	Definitions.
	Weeding sentiment (feelings about books from staff, librarians, users, the public).
	Weeding approaches (qualitative/quantitative, selling of weeded material, judicial approaches to weeding, information content vs format).
<b>Library</b>	Identity (of both librarians, libraries and the specific librarians that we talked to).
	Library (description, library catalog, library as a meeting place).
	User community (ideas about the user from the library's perspective, definition, wants, needs, involvement in acquisition and weeding, pandemic influences, discipline specific).
<b>Policy Document</b>	Use of policy document.
	Motivation and purpose of policy document.
	Complementary policy documents.
	Publicized/not publicized on any library web page.
<b>E-weeding</b>	E-weeding definition.
	E-weeding motivation.
	E-weeding, thoughts and opinions.
	E-weeding compared to print weeding.
	About own library or libraries in general, other libraries and thoughts on their practices.
<b>Digital Collection Management</b>	Lack of swedish e-material for academic libraries.
	Discovery systems (manipulating ranking, activating/deactivating resources).
	Budget concerns.
	Evaluation criteria for ending/managing subscriptions.
	Perpetual access.
	License agreements.
	Publishers incentives.
	Library control over contents.
	Discipline specific.
	Journal subscriptions.
	User involvement in digital collection management.
Open access.	
<b>Related Library Practices</b>	Acquisition (relationship between acquisition and weeding, acquisition strategies, laws and collective agreements).
	Collection management (print books, course collections).

	Storage (magasiner, closed stacks, warehousing).
	Preservation (responsibilities, institutional material, national cooperation, interlibrary loans).
	Statistics, reporting to KB yearly, producing usage statistics.
	Consortia, conferences, networks, general collaboration.
	Promoting material.
	Teaching, pedagogical matters.
	Memory institutions, archives, museums, etc.

Example from an interview of how interviews were qualitatively coded using the coding manual above:

It it was a big deal five years ago and now no one is really using it. Then we can end the subscription. And that's really not weeding, but it's collection management. And keeping the e-collection current and in use, and I think that's really important that we can deliver information resources that are relevant to Yeastudent students and resource researchers. And one way of seeing if it's relevant is is it being used? There are other problems connected to usage of e-resources. How much is enough usage? And when what's the lowest count for it to be used? Or is it just used during a specific course and not the rest of the year? Do people even know that we have this fantastic e-resource? Not all patrons are good at locating or realizing what we have. It's it's easier to show what you have in the physical library. But I think that that's something that all academic libraries wrestle with is how to to get patrons to see all the fantastic e-stuff we have.