

***The Nordic Model of Digital Archiving*, eds. Greg Bak
and Marianne Rostgaard, ISBN: 978-1-003-32540-6,
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Greg Bak and Marianne Rostgaard are the editors of *The Nordic Model of Digital Archiving* – an anthology to which project participants in the form of researchers and practitioners within the IRFD network *Digitization and the Future of Archives* have contributed texts to. It is not a practical handbook on how to archive digital material. Instead, the purpose of the book is to investigate the roots of Nordic archiving in order to inspire archivists in how they should handle new technologies and the datafication of records. Examples of challenges and opportunities with the Nordic archiving strategy are provided. The book is divided into four parts and ends with concluding remarks by Elizabeth Shepherd, Professor of Archives and Records Management at University College London. She compares the Nordic model against the situation in the United Kingdom to highlight its strengths and weaknesses and what the Nordic countries should consider in their future archiving and digitisation strategies.

The book is of great immediate interest in a society where authorities and private organisations are increasingly exposed to, for example, ransomware attacks and thus have to review their digital archive management for how our cultural heritage can be kept accessible for the future with as little risk as possible of personal data breaches.

The first part introduces the Nordic region and provides a historical background to the composition of the Nordic countries to illustrate how history has affected the countries' archival organisation. The authors consider that the Nordic region differs in several ways from the rest of Europe. The centralised state has had a strong impact on the countries and provided the foundations for the capacity to implement the welfare state, which the authors believe explains the population's strong trust in their government authorities and social institutions. It was something that was clearly expressed during the Coronavirus pandemic, where

Nordic authorities did not introduce curfews but instead encouraged residents to work from home and to avoid public environments, which the residents largely followed. The welfare state, in turn, has made it clear that cultural heritage institutions belong to the public; and therefore institutions such as libraries, museums and archives were funded. Another characteristic of the Nordic region is that the public has influence in political decision-making, which may explain why the Nordic countries are often ranked among the least corrupt countries in the world in the Corruption Perceptions Index.

Part one emphasizes that the Nordic countries have started the efforts to digitise their documents very early, and that there was an idea that the archives should function as society's collective memory where information should be available both for the present and the future. The book describes a "Nordic model", as it is considered that there are several similarities between the countries' archive management – which can be summarised as a belief in standards, solid legislation – and the guiding principles that have influenced how records are handled. The legislation puts pressure on transparency in public relations and a strong collaboration between archivists and government authorities, which in turn affects how municipalities and county councils handle their records. Furthermore, the Nordic model is characterised by a strong connection between records management and archiving. The book focuses on archiving in the public sector but at the same time underlines that the Nordic model has major shortcomings when it comes to preserving records created by the private sector. Nordic archiving is largely based on laws and regulations that focus on archiving in the public sector, which the authors claim is not suitable for collecting and preserving private archives. A comparison is made between Denmark and Canada; the latter has a more flexible collection method which facilitates the acquisition of private archives, while Denmark requires for the records to be delivered in predetermined formats, making submissions from the private sector more difficult. Furthermore, it is pointed out that there are no clear requirements, mandates and resources to preserve private records, which threatens the cultural heritage.

In chapter two, by Marianne Roostgaard, we see how the Danish preservation strategy originally involved migrating records and data into standardised formats. She also writes that the welfare state turned the public into "record subjects" but that the digitisation of the public sector, where digital tools for automated decision-making have been introduced, means that citizens are suddenly involved

in the creation of records (p. 33). In Denmark, organisations' data must be moved to the archives every five years; several projects have been carried out where data from public agencies is reused for research purposes. Analogue documents are digitised and then combined with other datasets to generate big data, which can lead to new areas of research.

In the next chapter, Samuel Edquist describes how Sweden's Freedom of the Press Act dating back to 1766 has strongly influenced Sweden's practices, to the extent that archiving is based more on legislation than international archival theory (p. 49). He offers a critical perspective, pointing out that, for example, Swedish archiving of digital records has long consisted of printing the digitally born records and archiving them on paper in physical archival premises. He also mentions that the strict principle of openness has resulted in government employees deliberately creating as few records as possible, relying on oral conversations in order to avoid archiving. He claims this means that we are in a digital dark age (p. 53). Furthermore, migration to new formats means discarding according to current legislation. Swedish authorities have also been bad at procuring electronic archives and preservation strategies have been postponed. Instead of securing the digitally born information, they have invested in scanning paper documents into PDF files. Thus, Sweden has not come to a mindset that digital records require a new form of appraisal, different from the one applied to paper documents.

Chapter four also provides a historical review of the handling of records and how the legislation affected Denmark and Sweden. Here it would have been interesting if the authors had focused more on what separates the countries, as on occasion there is some repetition between the chapters. On the other hand, perhaps repetition is inevitable when several different authors discuss the same theme; this also means that you do not have to read the book from cover to cover, but can select the chapters you are interested in. The last chapter of the first part of the book compares the Norwegian and Swedish government committees which developed proposals for new archive legislation. The archive investigations were undertaken, as the archival community believed that society had changed with digitisation while the legislation had not kept up. Herbjørn Andresen analyses the government committees based on five different themes. One interesting observation was that a report by a Norwegian government committee tried to abolish the registry principle, something that was obviously too daring for the Norwegian Ministry of Culture.

The second part of the book deals with the Nordic countries' strong belief in standards. In chapter six, Bak compares digital archiving practices of Denmark and Canada, both of which were early adopters of digital archiving. In Denmark, the strategy has been that data, not systems, should be preserved, so the data should be archived in system-independent formats together with metadata (p. 99). The opinion in Canada was that the quality of the digital records must be managed first, before long-term preservation is considered, as there is no point in archiving substandard records. Therefore, the Canadians started to preserve several versions of the same record – both the original format and a preservation format are kept (p. 109).

In chapter seven, Pekka Henttonen discusses how information in Finland is often handled by systems that are not designed for records and archive management. Because of this, the Finnish National Archives introduced a specification for records management systems. Yet, the information control systems have only had limited success, as Henttonen notes. One problem is that, despite legal requirements, record management is not prioritised; management prioritises spending money on other things and only implements changes when they absolutely have to.

Chapter eight illustrates how Norway, in the absence of international standards, developed its own standard – Noark – two decades before ISO 15489. Currently, since several international standards are available, Noark will no longer be updated, which has given greater freedom for the public sector. Nonetheless, Martin Ellingsrud believes that standards will remain important to facilitate exchange of data. International research has been increasingly interested in the concept of “Archives as data”. Archival collections are made available digitally, which facilitates sharing of the archival material and data analysis on several collections that can be turned into big data. For example, one can study how often certain words appear in the collections and see if there are particular themes in the archival material. Ellingsrud takes the idea of an archives-as-data paradigm and compares it to the Noark standard which is centred around documents. This means that the metadata stops at the document level which makes it difficult to use the Noark standard for implementing a data-centric approach.

In the next chapter, the Danish National Archives' project Link-Lives is introduced, where historical archival documents are digitised to create a database matching other digital registers, creating big data sets that can generate new research. The chapter explores datafication of historical records and what one

should take into account if one wants to merge different forms of historical data into a database, for example, information that is expressed differently in the historical sources must be standardised (p. 165).

The third part of the book describes the shortcomings of the Nordic model. Chapter ten describes problems that may arise when migrating original formats to preservation formats. For example, when converting Excel files into static images such as a PDF, where information loss occurs, one could ask what use is the “new” record? The PDF file is a static representation of a situation, but the ability to review content such as the formulas which generated what is written on the record is gone. The importance of parallel archiving is emphasised, just as in the Canadian example, where the record is archived in both the original file-format and a preservation format. In Denmark, formats such as XLSX and ODS must be migrated to TIFF or JPEG-2000. The chapter argues that Denmark’s archival strategy results in simplified representations of the records, which means that migration creates less authentic records. The chapter therefore discusses problems that can arise with migration. At the same time, parallel archiving leads to increased storage costs, where a political question arises as to who should pay for the archiving and long-term storage. Even so, Asbjørn Skødt argues for parallel archiving because we do not know what the future holds and it should be up to future users to decide what information they need, while the archives must ensure that such information is available.

In chapter eleven, the importance of archiving websites is discussed, as the information contained there quickly becomes unavailable while at the same time being a vital communication and information tool with historical interest. Caroline Nyvang and Eld Zierau claim that the Nordic countries were at the forefront when it comes to archiving websites and give five examples of how the National Libraries in Sweden, Denmark, Norway, Finland and Iceland have chosen to proceed. Here, I believe, it would have been interesting to analyse why the archiving was done by the libraries and not the National Archives. Maybe it has to do with legal deposit. The chapter does not give a technical description of how to preserve websites, but points to five national projects where the biggest difference lies in how accessible the countries have chosen to make the collected data. Here it would have been interesting to have an in-depth discussion about why such differences exist.

Chapter 12 summarises the results of the CoSoPho project, which investigated the future acquisition of photographs from the public for archive and museum

collections. According to Bente Jensen, photography in social media is used more as a form of communication than as a memory, which was previously its main purpose. This places new demands on archiving, as she believes the context around the social digital photography becomes more important. The photograph consists not only of an image, but also of algorithmic metadata, geodata, text, likes and shares on social media, making the image an entire ecosystem that should be kept together for as long as possible. The project combined different methods for collecting social media images, dividing them into three groups: user-generated collecting where the contributor participated in lending the photograph, curated collecting where professionals working at museums and archives chose which photographs to preserve and finally harvesting the social media images as big data. The third method was subsequently abandoned due to legal difficulties. Much of the acquisition was done through hash tagging, where the contributors could tag their pictures they wanted to “donate”, and existing hashtags were used to identify interesting images to preserve.

The next chapter provides a background to the colonisation of Greenland and how information was spread before print and broadcast media. The chapter discusses how the legislation provides strong protection for archiving government information, but not for private records. This has meant that many AV records from private actors of great historical interest are at risk of being destroyed. The chapter cites an example of the archives of the local TV association in Aasiaat which holds VHS tapes. Most of them were damaged after being stored in an unheated container for many years. The records have been transferred to a museum, but it was not possible to search for a particular footage in the record management system and some recordings could not be watched due to lack of cables for the recorder. According to the author, these materials must be digitised in order to be saved.

Part four of the book deals with those who work with records archiving. Chapter fourteen examines user participation in the Nordic countries; a comparison is made between participatory archive and participatory archival practices. The former includes civic and individual perspectives, while the latter option pushes participation into predetermined existing framework, where the archivist continues to have the deciding role.

The next chapter describes how archival interests' groups were formatted in Sweden and concludes that the associations, in combination with the fact that the archival profession is now a university major, have elevated the profession

and effected a harmonisation, where the archivists now have a common professional identity. Moreover, this has made it easier for archivists to move between different sectors, since digitisation requirements are similar, regardless of whether it is a central institution or a municipality.

Chapter sixteen examines how archival education has developed in the Nordic countries. The first courses at university level were offered in the 1970s. The standard professional path consisted of a long-time in-house training combined with practice-oriented courses, but from the 1990s onwards, full-training programs were developed. Anneli Sundqvist sees them as an example of increased professionalisation combined with international demand for standardisation. At the same time, the profession has changed with time and is more multifaceted today. The archivists' tasks can differ within the same country; duties of many archivists in the Nordic countries include both archival work and records management. In other words, the archivist's job has evolved from a custodian and administrator to an expert in information management. Moreover, the close connection to history has weakened. This has resulted in different types of archive education, which Sundqvist divides into autonomous-, integrated- and combined programmes. The first one is almost fully dedicated to archival studies and the last one combines archival studies with complementary disciplines. The programmes are framed depending on the labour market, target group of students and the discipline's teaching of students, and have been shaped by the political and financial situation prevailing at the time of their formative phases. The fact that Nordic universities are autonomous institutions resulted in great diversity of educational programs. At the same time, however, all the Nordic programs are characterised by their emphasis on the archive's role within democracy and the citizens' rights to information. The author argues that the breadth of archival training is a positive thing, because the professional role itself is so different within different workplaces. What is needed is a greater understanding of how the programs are defined and designed so that a dialogue can be created between the universities about what the programs should look like to meet future professional needs.

In the next chapter, Ragna Kemp Haraldsdóttir argues that records managers and archivists need to be involved in digitisation projects. She brings an example of how digitisation has taken place in Iceland and the challenges involved in preserving digital records. The digitisation process has several advantages, such as increased accessibility for the public and facilitated collaborations

within the public sector. Despite this, archiving of digital records has been slow in Iceland due to lack of skills, absence of funding and because authorities have not prepared their records for transfer to electronic archives. Furthermore, the archiving itself is too complex and time-consuming. Several of the authorities lack staff with suitable competences to work with these issues. The situation is not unique to Iceland, a comparison is made with Finnish municipalities where there was a lack of clarity about what e-Governance meant and people who work with records management were not included in digitisation projects. One reason why the records managers were perceived as invisible was because they had varying professional backgrounds and not necessarily a university education. It should be added that this is not unique to either Iceland or Finland – the same situation exists in Sweden, and I assume that the situation is similar also in other countries. The lack of archiving can affect citizens' rights, be devastating for the cultural heritage and make the work of government authorities more difficult. Haraldsdóttir writes that records are rarely registered in records management systems or archived, as staff struggles with understanding what a record is. The chapter also states that the archival educators can do a better job of preparing the students for what they can expect in their professional life with increased digitisation.

As mentioned, the book ends with a summary based on various themes such as ethical problems with big data and a conclusion that the Nordic countries tend to focus on the archive rather than the user; it also presents a comparison between the archival profession and education in Great Britain and issues discussed in the body of the book.

I would say that the book is interesting for those archivists outside the Nordic countries, who want to learn what the archiving situation looks like in the Nordics; I assume that the issues covered in the book are nothing new to Nordic practitioners who deal with them in their daily work. Of course, the book could also be addressed to Nordic archivists who wish for inspiration on how they could work, or want to know if they are on the right track. I would say that it would be positive if heads of public offices in Nordic countries, as well as private managers, read the book to see what measures are required in their workplaces to ensure that their organisational and collective memory is maintained both within the company and for the future.

My point is that some of the things presented in the book are not news to those working as archivists; there are examples of government authorities

already working in the way the book presents as beneficial. For example, the book's suggestion that records should be preserved in the original file format as well as in a preservation format. These authorities work based on information-centric preservation principles rather than system-centric ones. It goes in line with what the book's authors strive for, namely that the information should be understandable and readable over time, regardless of the system in which the information was originally created. I also believe that more archive organisations would like to work in that way, but that there is a lack of support from management and a lack of resources.

It is a well-written book with interesting and burning questions where many aspects are certainly current even outside the Nordic countries. It provides a critical view of the Nordic records management and is a good material for further discussions about how to approach an increasingly complex preservation situation in the wake of digitisation.

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