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The Nordic Model of Digital Archiving

An Introduction

Rostgaard, Marianne; Bak, Greg

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The Nordic Model of Digital Archiving

Edited by Greg Bak and Marianne Rostgaard

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Chapter 1

The Nordic model of digital archiving

An introduction

Marianne Rostgaard and Greg Bak

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The Nordic model of digital archiving

An introduction

Marianne Rostgaard and Greg Bak

The idea for this book evolved out of meetings of the Denmark-based research network *Digitization and the Future of Archives* (2018–2022), funded by the Independent Research Fund Denmark. As Nordic and international scholars discussed their research, several distinctive traits among the Nordic countries' traditions of archiving became increasingly clear – distinctive not individually, perhaps, but in combination, together demonstrating strengths and weaknesses of what we came to call the Nordic model of digital archiving.

In this book, we mainly inquire into government records archiving, exploring the nexus between digitisation of public sector administrations and digital archiving, even as we recognise private records as a blind spot in Nordic digital archiving. Major themes of our discussions include emerging archives-as-data discourses; the secondary use or reuse of archival data; a variety of visions and practices of participatory archiving; archives as memory and archives as evidence; and classical questions of record keeping. Digital technologies challenge Nordic archivists, much as they have challenged archivists everywhere, and while the Nordic countries have been frontrunners in finding technical solutions to some challenges of digital archiving, other challenges remain, some of them unforeseen consequences of Nordic technical solutions.

In this introduction, we start with a short discussion of the meaning of Nordic, identifying what are the Nordic countries. We discuss what makes Nordic archiving distinctive and suggest why Nordic digital archiving is of interest outside the Nordic countries. Lastly, we present an overview of the book, focusing on how the individual chapters enhance our understanding of Nordic digital archiving in general.

The Nordic region

The meaning of Nordic has changed across time, place, and field of inquiry. A very flexible term, Nordic has been claimed, redefined, or rejected multiple times during the last two centuries. Although people and politicians both inside and outside the region will discuss Nordic values or Nordic culture, no

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empirical evidence can be found that such values or culture are exclusively Nordic, clearly distinct from those found in other European or Western societies (Strang, Marjanen and Hilson 2021). What nearly all usage of Nordic has in common, however, is that it denotes something progressive, a desired "good society," or more rarely a dystopian societal model. Whether utopian or dystopian, a single Nordic society or culture has never existed. Strang et al. (2021, 13) observe that this use of Nordic represents "the aggregate of cherry-picked features from the different Nordic countries." In branding, as in New Nordic Cuisine or Scandinavian design, the use of Nordic points to some allegedly inherent quality that distinguishes the product. Real or not, such use of Nordic invokes an imagined society, generally admired, sometimes disapproved, but in all cases only putatively related to the actual peoples, places, and cultures of that part of northern Europe referred to as Nordic.

Nordic is the adjectival form of the noun Norden, which translates as "the north" in several European languages. The Nordic region, also known as Norden, consists of five nation-states (in alphabetical order): Denmark, Finland, Iceland, Norway, and Sweden; as well as the autonomous territories of Greenland, the Faroe Islands, and Aland (Åland); and the transnational Sápmi region, traditional lands of the Sámi people, spanning the northern part of Norway, Sweden, Finland, and the Kola Peninsula of Russia. Inside Norden, Scandinavia traditionally denotes Denmark, Norway, and Sweden, the three countries where Scandinavian languages are spoken. Outside Norden, Nordic and Scandinavian sometimes are used interchangeably. Since the 1990s, Nordic has become a strong brand, and therefore, within and outside the region, it has been adopted as a common referent (Strang et al. 2021). We have followed suit in this book, using Nordic rather than Scandinavian. Nordic is an unambiguously broader term that includes Finland, Iceland, and the various autonomous territories, Scandinavia may or may not. Nordic contributors to this book come from Denmark, Finland, Greenland, Iceland, Norway, and Sweden.

The Nordic nations share a complicated history, with many political unions over the centuries, some forced and some voluntary. The various Nordic nation-states face more to either the Atlantic Ocean or the Baltic Sea, which, together with the historical unions, has led to a differentiation between West Norden (Denmark, Norway, and Iceland) and East Norden (Sweden and Finland). Understanding this basic division is useful, although these terms are somewhat ambiguous today, since West Norden sometimes is used as the common name for The Faroe Islands, Greenland, and Iceland.

Sweden conquered its Baltic empire in the sixteenth and seventeenth centuries; as part of this empire, Finland was colonised and became a Swedish province from the fifteenth century until 1809, when Finland was ceded to Russia during the Napoleonic Wars. Finland had some independence, administratively and otherwise, as a Grand Duchy under the czars of Russia

before declaring its full independence in 1917. Denmark-Norway was a dual monarchy, with the Danish and Norwegian royal families marrying into each other, from 1380 to 1814. From 1814 to 1905, Norway was a partly independent country under the Swedish crown. Iceland since the 1800s was a partly independent country under the Danish crown, becoming fully independent from Denmark in 1944. Iceland was never officially a colony of Denmark, although all practical matters were handled as such from the 1500s until the beginning of the 1800s. Denmark until the nineteenth century has been characterised as a composite state, with several territories, such as the colonies of Greenland and the Danish West Indies, with different statuses, united under the Crown of Denmark (Østergaard 2002). Sweden on the contrary has a long history as a nation-state, dating back to the seventeenth century.

The five Nordic nation-states are sometimes represented, and sometimes represent themselves, as age-old, but they are not so very old if we look at the current borders. The longest-established modern borders are those of Sweden, which were set during the Napoleonic wars. Norway, Finland, and Denmark became independent or changed borders during the twentieth century. Norway became independent in 1905. South Jutland or Sønderjylland (also called North Schleswig) merged into Germany in 1864, to be reunited with the Kingdom of Denmark after a referendum in 1920 as part of the Treaty of Versailles. It has remained Danish since. Finland became independent in 1917 but was forced to cede territory to the Soviet Union after World War II. The idea of the Nordic countries having an age-old pedigree stems from Denmark, Norway, and Sweden being independent kingdoms from early mediaeval times, or the Viking age. Despite the ancient existence of these kingdoms, geographically more or less within their current borders as nation-states, they are neither older nor younger than most other European nation-states.

Nation-building in the Nordic countries originally was based on ethnocultural definitions of the nation, themselves based on histories of settlement, culture, and political evolution, and on arguments related to language (Nordstrom 2008). Nordic countries had to fight for their independence from the great powers neighbouring the Nordic region, the German and Russian empires, and from other Nordic countries. The Indigenous Sami populations were subject to forced assimilation throughout the region, and the same is true of Indigenous Greenlanders, especially after 1953, when Greenland was incorporated into the Kingdom of Denmark. The nation-building processes of the main Nordic countries culminated in the rise of the welfare state, levelling geographical and class differences, and instituting equality as a core value (Kuhnle and Alestalo 2018). Immigration to the Nordic countries since the 1970s, and integration of the new citizens in these until-then relatively homogenous societies, has challenged the Nordic welfare states both as imaginaries of what might happen and by topical discussions of what constitutes citizenship in the modern Nordic welfare state (Brochmann 2021). Immigration

has become one of the most contentious questions of the welfare state, challenging the self-perception of Nordic societies as bastions of gender and racial equality and defenders of human rights. Current discussions over what it means to be part of Nordic society have yet to reach any stable conclusion or even achieve consensus on the key questions to be addressed, even as notions of integration are to some degree modelled on the integration of different classes in the national welfare states of the twentieth century.

Rarely does the traditional self-image of Nordic peoples, or the current debates about identity, immigration, and integration, address in any sustained or profound way the eighteenth- to twentieth-century histories of colonialism either within the Nordic region, as in the treatment of the Sámi by the Finnish, Norwegian, and Swedish states, or in the farther reaches of the globe, as in the Danish colonies in the Caribbean, the Faroe Islands, Greenland, and Africa, or in Norwegian and Swedish attempts to establish colonies in Africa and the Americas. This silence on Nordic colonialism extends to a silence on the urgent need for continuing processes of decolonisation in the Nordic nations and in the former colonies, including archival decolonisation (e.g. Bastian 2003, 2019). Indeed, Daniela Agostinho (2019) has explored how Nordic values such as open access to information can hinder processes of cultural and political decolonisation, at home and abroad, when colonial contexts are forgotten or ignored. Moreover, in a recent survey of disputed archival claims, the International Council on Archives' Expert Group on Shared Archival Heritage reported two claims that Greenland currently has against Denmark, one concerning historic records and one concerning current records (Lowry 2020). In putting together this collection, we were working to address these urgent questions around Nordic colonialism and decolonisation through two chapters but were not able to bring either piece to a completed form. Late in the process, we were glad to receive a paper from Greenlandic scholar Aviaq Fleischer, who offers a necessary intervention into how postcolonial Greenlandic cultural heritage is conceived and should be preserved.

Discussions about archival decolonisation and the representation of minorities more generally, including their place in the cultural heritage of the Nordic countries, will continue to evolve with ongoing discussions of the region's colonial past, including the past and present of Indigenous peoples and people descended from formerly enslaved populations, and the present relationship between majority and minority populations in the Nordic countries. Unlike, for example, Britain or France, populations formerly colonised by Nordic nations do not make up a significant part of current populations in the Nordic region. Within Nordic archiving, questions of otherness and citizenship have until now mostly surfaced in discussions about the archives of the colonial past, especially the former Danish West Indies (now the US Virgin Islands), but also in the colonial heritage of Greenland. Recently, however, some archival institutions and museums have also started to collect records created about or by immigrant and refugee communities.

Interrelatedness of Nordic archiving, governance, and society

Nordic nations are characterised by strong, centralised national governments that share the work of administration and governance with regional and municipal governments. Regional and municipal governments respect the jurisdiction of national governments and look to national governments for formal and informal regulation in areas of local or municipal jurisdiction.

Nordic archives reflect the tripartite division of Nordic government, with – in principle – institutionally separate archives serving each level of government. Although institutionally separate, archives at regional and municipal levels tend to follow the same processes as the national archives, whether required by legislation or not. Additionally, the various national archives have often been looked to for leadership within the national community of archival institutions and archivists, extending the influence of the national archives through archival associations, journals, newsletters, and so on. This has been particularly true of Nordic digital archiving, where the various national archives have established processes and standards that are often adopted by regional and municipal archives. It is useful, then, to have some understanding of Nordic government administration, in general, before turning to the specifics of Nordic digital archiving.

Denmark-Norway was never as centralised as Sweden. Nevertheless, compared to most other European countries, all Nordic countries from the eighteenth century developed state apparatuses promoting top-down reforms set in motion by central administrations, themselves unusual for their strong local reach, making them capable of implementing reforms (Hilson 2008, 100). Following the sixteenth-century protestant Reformation, local religious ministers in Nordic state churches also served as local state administrators and loyal servants of government. In the eighteenth century, local secular administrations emerged separately from the church for purposes of collecting taxes and so on, staffed by able and loyal civil servants. When democratic and national revolutions of the nineteenth century transferred power from royal dynasties to parliaments, the new men in power inherited efficient central and local administrations. In the wake of, or as part of, the national movements of the nineteenth century, agrarian and urban working classes demanded democratic constitutions that included their right to citizenship, with equal rights in society. The resulting constitutional changes initiated a tradition of including the labour movement, farmers' organisations, and the strong social organisations they had created as consultative bodies to government, and in between even as administrators of public goods and services such as health insurance for union members. The border between the state, the government, and civil society was thus relatively fluid in the Nordic countries, with extensive cooperation between national as well as local government and civil society organisations and associations, including their participation in government decision-making processes and in the provision

of government services (Kuhnle and Alestalo 2018, 17). Besides this participation, Kuhnle and Alestalo point to "the extensive prevalence of the state and the public sector" within the Nordic welfare model (Kuhnle and Alestalo 2018, 15). The centralised state also has its drawbacks. Icelandic historian Ann-Sofie Gremaud notes that a centralised state will tend to look at provinces and regions as peripheries, thus making Iceland, for example, a "cryptocolony" despite never officially being termed a colony (Gremaud 2021).

The Nordic welfare state was a child of the crisis years between the two world wars. Historians have discerned the roots of the welfare state as far back as the Reformation, but there is general agreement that it was the crisis of the early 1930s that supplied the catalyst for the national compromises that signalled the birth of the universal welfare state, named so by Gösta Esping-Andersen in his seminal book *The Three Worlds of Welfare Capitalism* (1990). The 1950s and 1960s represent the golden years of expanding government services in the Nordic welfare states, marked by the consolidation of pre-existing traditions towards cooperative administration of government and government services at all levels of society and facilitated by a generally non-partisan approach to central government (Petersen and Christiansen 2001; Brochmann 2021, 196).

Today, the Nordic countries are becoming less distinctive, or "Nordic," and more like other European or Western countries, due to their integration into the European Union and ongoing globalisation since the early 1990s. Nonetheless, the Nordic countries still differ from other countries around the world and in Europe. Centralised government is one legacy. Another is the Nordic welfare state, which cares for and intervenes in the life of its citizens to a degree unknown in most other countries. A third legacy is trust or social capital. Data from OECD and World Bank indicators of Good Governance show Nordic countries at the top of the scale when measuring citizens' trust in their governments and social institutions. Social capital in Nordic societies is based on trust in governmental and institutional fairness (i.e. equal treatment and rule of law) and the inclusion of representatives from social organisations in political decision making, giving people a voice and a channel to exert influence (Torpe 2013, 189-190; Brochmann 2021, 199). Social organisations and the welfare society, in general, perceived to offer equal opportunities and equal access, for example, to education and health care, are very important factors in explaining the high rate of trust in Nordic governments and social institutions (Torpe 2013, 193). Another indicator of trust is Transparency International's corruption perception index, which in 2021 ranked Denmark number one in the world, followed by Finland at number two, and Norway and Sweden at numbers four and six. The index measures perceived corruption and thus is another indicator of trust. The order of the countries may vary, but Nordic countries have consistently figured at the top of Transparency International's corruption perception index.

The close affiliation between Nordic public archives and public administrations has created a common culture among agencies of government and a

consequent sharing of the culture and even the mechanisms of government. This can be seen in the culture of cooperation that exists between government agencies and its archives and in acceptance of direction from the national public archives in determining archival procedures and processes at all levels of government: national, regional, and municipal. Nordic egalitarianism is based on law, for it is by having fair and effective laws that apply throughout society that citizens can trust that everyone's rights will be protected equally. Nordic public archives have shared in the unusually high levels of trust in government by citizens in the region and have been able to carry out their work efficiently and effectively through a combination of cooperation within government and strong regulations, including legislation.

A Nordic archival tradition

The decades following the Second World War saw strengthened cooperation among the Nordic countries through The Nordic Council (Nordisk Råd), The Nordic Council of Ministers (Nordisk Ministerråd), and the civil society organisation The Norden Association (Foreningen Norden). The Nordic Council serves as a forum for meetings between members of the various Nordic parliaments and has resulted in, for example, a passport union and a common labour market that predated the European Union, based on a right to live and work throughout the Nordic region for those holding passports from any one of the Nordic countries.

Besides cooperation among national governments, such structures have enabled cooperation among numerous civil and professional societies. Archivists from the various Nordic national archives have met regularly since 1921 (Ilsøe 1982; Norberg 2003). The journal Nordisk Arkivnyt was founded in 1956 to share news, although not theoretical or practical research. Since the 1980s, meetings between the heads of national archives have taken place on a yearly basis (Nordisk Arkivportal 2017).

In 2003, Erik Norberg's essay "A Nordic Archival Tradition" was published in Archival Science, in which he noted, "We are used to talking about a Nordic archival tradition, formed by a common historical experience, similarities in political development and social system" (Norberg 2003, 90). Norberg describes a region in which geographical proximity and shared history have yielded several mechanisms for cooperation, including in the management of public archives. Following closely on Norberg's article, the International Congress on Archives' journal Comma published a special issue on "Nordic Archives and Archival Issues," edited by Nancy Bartlett. In her editorial, Bartlett notes that "The neighbouring archives of Denmark, Finland, Iceland, Norway and Sweden share a common heritage linked by language, stable populations, enduring bureaucratic traditions, and a preference for the pragmatic and predictable over the philosophical or fashionable" (Bartlett 2004, 5).

One of the characteristics of the Nordic model of digital archiving is a close connection between records management and archiving. Strong regulatory frameworks have shaped public sector digital record keeping in the Nordic countries to secure accountability and transparency in public sector administration. Anne Thurston has promoted the Nordic model of digital archiving as a model of open government based on good records management by public authorities and freedom of information as a core value in public administration (Thurston 2012, 2015). Her 2015 report, titled Managing Records and Information for Transparent, Accountable, and Inclusive Governance in the Digital Era: Lessons from Nordic Countries, uses Norway as an example and promotes the Norwegian records management standard Noark, first released in 1984 (see Chapter 8 of this volume), as a tool for managing digital records as evidence and thus enhancing open government. Thurston discusses crucial features of the Nordic model of digital archiving, but we will argue that there is more to archiving than trustworthy records and evidence, as important as these are, and more to the Nordic model than standards and open government. The Nordic model also includes ambivalences or downsides worth noting.

The Nordic model of archiving is rooted in administrative traditions that have evolved over the last approximately two hundred years, including freedom of information acts. Nordic archiving also shaped and was shaped by the developing Nordic welfare states in the sense that cultural heritage institutions (libraries, museums, and archives) have been considered public goods to be funded by the welfare state; making the cultural heritage available for public use was and is considered to provide information citizens can use in their identity and solidarity projects and in public deliberations (Larsen 2018). Niels Finn Christiansen and Klaus Petersen once tongue in cheek remarked that the Nordic welfare model is "a model with five exceptions" (Petersen and Christiansen, 2001, 153–156). Like Christiansen and Petersen, we believe that while it makes sense to refer to a common Nordic model, it is not and never was a strictly uniform model. Peering closely at any single national archival tradition within the Nordic region, such divergences can appear greater than the commonalities; pulling back and looking in from outside the Nordic region, the commonalities snap into focus.

As institutions, the various national archives of the Nordic region are children of the long Nordic tradition of trusted, and trustworthy, central and local administration, renewed as modern archives in the wake of movements for national independence or the implementation of democratic constitutions. Sweden, rightly famous for establishing freedom of information in law in 1766, linked archiving to transparency in government, which it enshrined as a personal right of every citizen. Another salient feature is the strong relationship between the national archives and national government in all Nordic countries.² Bartlett's observation of "a preference for the pragmatic and predictable over the philosophical or fashionable" remains a touchstone for Nordic archivists, equally in evidence in the 2004 *Comma* special issue that

she edited and in the chapters of this book. Jaana Kilkki's (2004) contribution to the Comma special issue suggests a kind of delight when Nordic archivists find their pragmatism validated by "frosting" it with international archival theory. Today, the Nordic archival tradition is not as isolated as it was in the past, partly because of the further consolidation of archival studies as a distinct field with its own thriving ecosystem of journals, books, and digital platforms, and partly because the entire field of archives, in continuing its increasing and now near-total digitisation, has coalesced around a stable set of technical and normative standards like OAIS, PREMIS, and the ICA suite of descriptive standards, and digital systems and tools like the opensource archival management system AtoM and open-source digital preservation tools like BitCurator and Archivematica. Nordic pragmatism and collaboration, which previously advanced the distinctive regional development of record keeping and archival solutions, is now leading it towards greater international participation and cooperation, much as the regional solutions developed by the Nordic Council and Nordic Council of Ministers are currently being outstripped by participation in broader groups such as the European Union.

The Nordic model of digital archiving

Digital in this volume refers to the common usage of digital technologies and computer technology within a domain, and it is in that sense justified to name Nordic public administrations digital. Digital in a narrower sense refers to records or information being coded and stored in a discrete rather than continuous state, which is often binary and signified with the numbers 1 and 0 (Floridi 2010, 25-26). Several pieces in this volume discuss earlier eras when digital information was referred to as electric, electronic, automatic, or machine-readable. For the most part, we use the term digital in our discussions and earlier terms when they are directly quoted. The related concept of digitisation is used to discuss the conversion of non-digital information to a digital state and the introduction of digital systems to perform processes or activities that formerly were non-digital. Over the last 50 years, Nordic societies, like many other societies, have engaged in ongoing processes of digitisation of government services, activities, and functions, with the stated objective of introducing digital systems to as many activities and processes as possible. The European Commission's eGovernment Benchmarks offer a reasonable conceptualisation and useful tracking of the extent of digitisation in European governments, including in the Nordic region (European Commission 2023). Archiving is used in this volume to signify all activities and processes involved in identifying information for long-term retention, setting it aside, and preserving, managing, and providing access to it (whether these functions or activities are undertaken by a dedicated archival institution or not). Within the Nordic region, it is recognised that archiving may have

many objectives, including those related to government accountability and transparency, those related to collective memory and history, and those that are far more intimate and personal, including aspects of personal and familial identity, memory, and history. Digital archiving refers to the performance of any or all archival activities and processes using digital technologies.

Among the most important aspects of what we call the Nordic model of digital archiving are traditions of collaboration at all levels of government and society and a reliance on standards and regulation that manifests in many ways in Nordic societies. Centuries of political and territorial unions in the Nordic region have left a surprisingly homogeneous governmental apparatus, at least from a record-keeping perspective. Perhaps most important is the focus on archival mandates, from national governments through regional and municipal governments, that ensure responsibility for public records, combined with a reliance on standardised registry systems, structured to enable not only government functions but also citizen access to information. Outside of the Nordic region, user-centred digital technologies quickly eroded centralised record-keeping practices with the introduction of desktop computing, generally starting in the 1980s (Bak 2016a,b). Within the Nordic region, centralised record keeping persisted. The stability of Nordic government infrastructure, including record-keeping infrastructure, during the post-Second World War expansion of the welfare state and during the transition to digital systems from the 1970s to the 1990s, was enabled by, and enabled, the remarkable trust in government that is typical of the region. This continuing faith in a trusted, professional civil service is weakening today but has been far stronger in the Nordic region than outside of it, perhaps because of the clear link between a competent civil service, robust freedom of information laws and practices, and the transition to eGovernment (Thurston 2015). Within government, trust in the civil service underwrites strong traditions of collaboration across agencies, as well as understanding of and respect for the distinct roles and responsibilities of the various levels and arms of government, including the archives. Although most chapters of this book only focus on one or perhaps two of the Nordics, the main traits described and discussed will be true also for the countries not directly mentioned.

The survival of standardised and centralised record-keeping registries across the transition from non-digital to digital record-keeping infrastructure is only one aspect of this cultural consensus. Another is the recognition that record keeping is an essential aspect of government in which everyone plays a role, while archives provide leadership. Throughout the Nordic region, new information technologies adopted by government agencies must first be cleared by the archives to ensure they meet the minimum requirements to allow for a satisfactory record to be extracted or output from the system when the time comes. As can be seen, particularly in Herbjørn Andresen's contribution to this volume (Chapter 5), this requirement is not always well received within government and has sometimes been identified as holding back Nordic bureaucracies from making use of the full range of digital tools available. It has nonetheless served for more than half a century to ensure enviably continuous runs of government records that span non-digital and digital record-keeping systems.

Recognition of the importance of record keeping not only to the functioning of the state but also to citizen access to information, and of the role of the national archives in determining the technologies and processes of record keeping, undoubtedly eases collaboration among the archives and the government agencies that they directly serve. Another distinctive feature of Nordic record keeping is the lack of differentiation between archives and records management; indeed, a recurring issue in this book is the lack of a vocabulary to distinguish between records and archives. Policies and procedures set by the national archives are generally adopted by municipal governments, sometimes due to existing archival legislation or regulation compelling them to do so and sometimes out of acknowledgement of the expertise of national archives staff. This is particularly true of digital archiving, in which national archives' approach of setting preservation formats and having government agencies convert data into those formats before transfer to the archives has become foundational for archives at both the municipal and national levels throughout the Nordic region. This culture of collaboration has led to another major Nordic innovation in digital archiving at the municipal level: the creation of consortia of municipalities who pool their resources to create a shared digital archiving infrastructure. The predictable costs and processes of a common approach to digital preservation have resulted in the development of IT experts who specialise in migrating digital information into designated archival formats. These specialists may either be independent consultants hired by government agencies on an as-needed basis, or they may be hired onto the regular staff of archives. Either way, the ready availability of these specialists is an important part of the overall digital archiving infrastructure that supports the Nordic model.

Shared digital infrastructure works because of the strong reliance among Nordic recordkeepers on standardised digital archiving practices. This reliance on standardised practice starts with strong, clear archival legislation and cascades down through various regulations, policies, and procedures. Increasingly, this standardised approach is being aligned with international standards. The current *Digital Archiving Policy* of the Danish National Archives, for instance, cites standardisation as one of eight high-level principles and structures its processes according to OAIS, adopting OAIS terminology throughout the policy and the related *Digital Preservation Strategy 2025*. It is of course best practice in much of the world today to make use of OAIS in this fashion and to build upon the additional standards that have been developed alongside or subordinate to OAIS, such as METS for structuring data and metadata and PREMIS for identifying and managing preservation metadata. Since the Danish *Digital Preservation Strategy 2025* is focused on data reuse as

well as data preservation, there is a similar reliance on the FAIR principles, "to improve the Findability, Accessibility, Interoperability, and Reuse of digital assets." As with OAIS, integrating the FAIR principles into the Danish digital preservation strategy enables the use of a range of additional standards and tools such as the FAIRification Framework and the FAIRification Process (GoFAIR 2022). The FAIR principles are fundamental to, for example, the kind of open data reuse that is promoted through the Danish Link-Lives project, described by Olivia Robinson et al. in Chapter 9.

The Nordic turn towards international standards is a theme in the book, especially in Chapter 5 by Herbjørn Andresen and Chapter 8 by Martin Ellingsrud, Ellingsrud, however, suggests that too much can be made of this, noting that international standards are embraced opportunistically and not out of any specific alignment between Nordic record-keeping traditions and the international record keeping or archiving theory that underwrites these standards. Rather, standards adoption can be seen as further evidence of Nordic pragmatism, combined with the trust in professional expertise that is common in the region and especially in government bureaucracy. In the absence of sufficient international standards in the 1980s, Ellingsrud explains, Nordic archivists created their own. With the rise of sufficient international standards, Nordic archivists are content to shift to using these when possible, avoiding the considerable effort (and cost) of keeping national standards up to date.

We have already deconstructed the idea of a common, distinctive Nordic identity and a common, distinctive Nordic archival tradition. Having noted the rising influence of international standards within Nordic digital archiving, it is warranted to question the entire concept of a specifically Nordic model of digital archiving. And yet it remains the case that, once again, stepping back from the specifics of each national tradition allows the distinctive commonalities of Nordic digital archiving to become much more apparent. The presence of archival legislation is hardly distinctive, and yet, it is not at all common to find archival legislation as the backbone of an extensive system of regulations and policies in which the national archives not only has the responsibility to determine which records of government are archival, but the authority to secure their transfer (in archives-determined formats, no less) and is looked to for leadership in establishing the requisite mechanisms and processes. Similarly, while relying upon registry systems is not unique to the Nordic region, the reliance on similar registries throughout the Nordic region, before and after digitisation, has encouraged a distinctive set of archival processes to manage digital and non-digital registries. Our Nordic model is also defined not only by its successes but also by its shortcomings. As Greg Bak describes in Chapter 6, the struggles of Canadian archivists to deal with seemingly endless digital formats in the 1980s and 1990s led them to develop new techniques for archival appraisal, specifically for digital records. Having established the principle in the 1970s that the creating agency is

always responsible for converting data into standardised preservation formats and that archival appraisal therefore happens irrespective of format, Nordic archivists are now struggling with proliferating data. Another blind spot in our putative Nordic model is in its inability so far to address private digital records creation. While the Nordic model of digital preservation has resulted in continuous archiving of public records across non-digital and digital record series, the reliance on legislation and regulations to compel the transfer of digital records in predetermined formats cannot easily be applied to private records creators. Having dodged the digital dark age of government records. Nordic record keepers are becoming increasingly anxious that they may have inadvertently created the conditions for inevitably and inexorably declining acquisitions from outside of government. Aviag Fleischer, in Chapter 13, considers the peril this creates as Greenland recognises the need to preserve the archival heritage not only of the central government, but of the small settlements that ring the coasts of Greenland and that are equally important in the developing history of independent Greenland. Direct Danish colonialisation of Greenland may have come to an end, but Fleischer demonstrates that Greenland has not yet undone the structures of colonialism that continue to undermine distinctive Greenlandic identity. Bente Jensen, in Chapter 12, describes an innovative Swedish, Finnish, and Danish project to collect private records through social media while fully respecting Nordic and European intellectual property and privacy rights. Although the participating archives can save photographs uploaded by social media users, they are not able to capture all the comments and other metadata that have accumulated around them. Social media remains a promising source for relevant documentation from private record creators, but further research is required on the intellectual property and privacy implications of this kind of collecting, as well as the technical infrastructure needed to capture, keep, and provide access to this new form of personal/communal record.

Contents of this volume

Most chapters in this book had their origins in discussions and presentations of the IRFD-funded research network *Digitization and the Future of Archives*; we also issued calls for papers for our conferences and for the book itself. Our goal was not to produce textbook-style comprehensive coverage of Nordic digital archiving, but rather to showcase the research and work being done by network members and other Nordic archivists and archival thinkers. Since our network brought together practitioners and academics, we called for either shorter, more practical contributions or longer, theoretical pieces. The editing process has tended to even out the differences between the chapters, but it remains that some are shorter and some are longer, and some take a more overtly conceptual approach to their topic than others. The chapters

were completed in the Fall of 2022 and may not reflect legal and other changes that have happened since that time.

We have titled the first section of four chapters "Evolutions in Nordic Digital Archiving." In Chapter 2, Marianne Rostgaard surveys the history of Danish digital archiving through the lens of Terry Cook's four archival paradigms, with a particular interest in considering how best to enable the secondary use of archival records and data in the present and future. While Cook's paradigms do not reflect the chronology of Danish archival history. Rostgaard finds them useful archetypes for the purposes and social meanings of archival work. Samuel Edguist in Chapter 3 examines the history of archival appraisal in Sweden, across the digital divide. He finds that Swedish appraisal primarily is understood within a legal framework that does not differentiate between digital and non-digital records but is oriented towards citizen access to information. Despite this legal framework, Edquist notes that appraisal decisions, made by archivists at the National Archives, are implemented by staff in government agencies, and that economic, operational, and pragmatic factors can greatly affect which and how many records are transferred to the archives. In the end, Edguist sees Swedish appraisal as a political process, regardless of its legal framework. In Chapter 4, Ann-Sofie Klareld and Marianne Paasch review Swedish and Danish archival legislation and practices through the lens of the records continuum model developed by Australian theorists Frank Upward and Sue McKemmish. Although they find significant parallels between the records continuum and Danish and Swedish practice, Klareld and Paasch argue that the Australian model proposes a more radical and comprehensive rethinking. The Swedish and Danish national archives have adapted to the digital era on an ad hoc basis without reference to an overarching theory like the records continuum model, resulting in inconsistencies in their approach to born digital records. In the final chapter of this first section, Chapter 5, Herbjørn Andresen examines the simultaneous proposals for rewritten archives acts in Norway and Sweden, prompted by escalating concerns for the impact of digital technologies on Nordic record keeping. While the Swedish proposal is fairly anodyne, the Norwegian committee sought to eliminate the registry requirement from government record keeping – a radical proposition in a region in which registry systems are employed at all levels of government. In the end, neither the conservative Swedish proposal nor the radical Norwegian proposal has been implemented; new archival legislation has yet to be introduced in either nation as our book goes to press. Andresen ends his chapter by noting that inaction in the face of changing technologies is not less risky than action.

The next four chapters are grouped under the heading "The Value of Standardization," and they explore not only the value of data standards or descriptive standards, but the value of standardised systems, processes, and data structures. In Chapter 6, Greg Bak offers a comparative, international perspective on the Nordic model by contrasting the Danish system of

migrating data and records from archives-approved IT systems and into standardised formats prior to archival accessioning with the Canadian approach, in which Canadian digital archivists must sort through whatever systems and formats were used by individual agencies, units, and staff members. The result, in Denmark, is enviably continuous runs of digital records, in contrast with perhaps 20 years of haphazard digital archiving at Canada's national archives. At the same time, Canadian archivists developed techniques of appraisal and preservation that have proven extensible to private digital archives, even as Danish archivists find themselves acquiring private digital records haphazardly. These outcomes are themselves typical of where Nordic and North American digital archivists find themselves today. In Chapter 7, Pekka Henttonen examines an attempt to implement metadata interoperability through standardised systems, exploring the history of Information Control Systems in Finland. Despite strong archival legislation, Henttonen finds that relatively few government agencies implemented Information Control Systems as they viewed the work they required to be of secondary importance relative to the mandate of the agency. Henttonen concludes that "there are limits to the archival influence on records management" - even when implemented through regulation. In Chapter 8, Martin Ellingsrud treats the surprisingly long history of standardisation in Norwegian archiving. Already in the 1980s, the National Archives of Norway recognised the benefits of creating a records management standard, the first of the Noark series, to support paper-based archival practice. Discussing Noark and the Norwegian database archiving standard ADDML, Ellingsrud explains that in the absence of international standards, Norway created its own. As international standards were written, such as ISO 15489 in records management, SIARD in database archiving, and OAIS as a framework for digital archiving, Norwegian archivists incorporated them as well. Standards are often thought to promote data interoperability, and Ellingsrud offers interesting analysis of why this does not always work out in practice. Chapter 9 describes the Link-Lives project at the Danish National Archives, focusing on efforts to develop a protocol for disclosing the many layers of subjective intervention that happen when non-digital records are digitised and datafied, such that they can then be accessed and manipulated computationally. Working with census records and birth, baptism, death, and burial registers and considering the FAIR principles for data use and reuse, Link-Lives seeks to make available for secondary use a set of data that describes the population of Denmark from 1787 to 1968, a period that spans many eras of record creation and keeping, including early digital technologies. Robinson et al., who are aware of the pitfalls of datafying and combining records of diverse eras and provenance, report on the protocol that they are designing, which highlights the limitations and ambiguities inherent in this project, such that users can approach their secondary use of the data with these risks and limitations foregrounded.

The third set of four chapters addresses gaps in Nordic digital archiving. Foundational to the Nordic model of digital archiving is the practice of migrating archival data and records out of their formats of origin and into formats better suited to long-term preservation and access. In Chapter 10, Asbjørn Skødt explores the implications of such format migrations for the authenticity of records and data held by the Danish National Archives. Skødt notes that no format migration is perfect: all result in some loss of interactivity and metadata, indelibly and irreversibly changing the nature of the archival record. Although he acknowledges that the current practice has served the Danish National Archives well, Skødt proposes a system of parallel archiving in which records and data would be retained in both their original format and in migrated formats. Digital records come in many different forms, including some that have no analogue among non-digital records. Caroline Nyvang and Eld Zierau in Chapter 11 survey the history and current state of Web archives in the Nordic region, while Bente Jensen in Chapter 12 reports on efforts to archive social media through the Nordic research project Collecting Social Photography (CoSoPho). Nyvang and Zierau note that the Swedish-led Nordic Web Archive project of the early 2000s established web archiving as a practice within Nordic National Libraries, where it has remained since. CoSoPho, on the other hand, was a research project of museums and archives in Denmark, Finland, and Sweden, and it largely followed archival methods in creating archives of photographs circulated on social media. It is interesting to note that social media content is captured in both the web archives described by Nyvang and Zierau and the social media archives described by Jensen, but with utterly different methods for capture, preservation, and access. While the National Libraries view materials circulated on the Internet as published and therefore subject to each nation's legal deposit laws, the archives and museums that participated in CoSoPho followed archival practice in treating social media postings as personal records, negotiating their collection with individual social media users. Moreover, private records are perhaps the most significant gap in the Nordic model of digital archiving since a reliance on regulatory solutions is not well suited to the private sector. CoSoPho offers an attempt to meet this gap. The final chapter in this section is by Aviaq Fleischer, who explores some lingering effects of Danish colonialism on heritage preservation in Greenland. Fleischer is concerned that the emphasis on preserving the records of the central, national government leaves Greenland's archives without a requirement to collect private records that document Greenland's intangible culture. Through a case study of 1990s records of TV-Aasiaat, a private television broadcaster on Greenland's western coast, Fleisher demonstrates that an exclusive focus on records of the national government threatens the survival of crucial records of Greenlandic language, history, and culture created by private citizens and institutions throughout Greenland. Her chapter most sharply and urgently expresses a running concern in our book around the

lack of mandate, requirements, and resources for preserving private records within the Nordic model of digital archiving.

The final section of the book offers four chapters that explore the cultures of records professionals in the Nordic region. Informed by current research into conceptions of participation and participatory archiving among Swedish and Norwegian archivists, Isto Huvila in Chapter 14 distinguishes the participatory archive from participatory archive practice. He finds that while the first envisions a radical reorientation of archival practice towards community and individual perspectives rather than institutions, the latter would simply integrate user participation into some current archival practices, with archivists retaining their authoritative or determinative role. Huvila finds little appetite among Nordic archivists for wholesale transformation. One way that archivists manage themselves and create a distinctive professional culture is through forming associations. Lars-Erik Hansen and Anneli Sundqvist, in Chapter 15, explore the complicated history of Swedish archival associations, revealing as they do some otherwise unseen dimensions of the Nordic model. For much of their history, Swedish archivists divided themselves according to their workplaces, with archivists at the National Archives forming one association, archivists/records managers in government agencies forming another, and so on. In effect, this submerged their work within their employer's mandate, obscuring those aspects of records work that are common across the specific contexts in which they are implemented. Over time, records professionals have come to see their work as fundamentally similar, regardless of institutional context, resulting in current movements towards a convergence of associations and a consolidation of the field. One reason for this convergence may be the rise of records-specific training and education in the Nordic region. In Chapter 16, Anneli Sundqvist surveys the current state of archival education throughout the region, identifying 15 programs of archival studies at universities in Denmark, Finland, Iceland, Norway, and Sweden. Despite significant variance, Sundqvist discerns a shared Nordic approach to archival education that does not often differentiate between records management and archives, while focusing on legal compliance and the rule of law, with a particular emphasis on citizens' right to information. As with the Nordic model itself, none of these characteristics are unique to the Nordic region, and yet together they form a cohesive and distinctive approach to professional education. In Chapter 17, Ragna Kemp Haraldsdóttir contrasts the primarily digital work of records professionals in Iceland with their stereotypical reputation for paper-based clerical work. While job ads do not consistently ask for digital competencies for records and information professionals, Haraldsdóttir notes that records professionals often end up working on digitisation of government services and information. Digitisation currently is a top priority of the Icelandic government, but one that is primarily seen as the work of IT professionals. Haraldsdóttir warns of the longterm implications of implementing digitisation without focusing on issues of

preservation and transparency – without considering the longer-term archival implications.

The final chapter in the book serves as an epilogue with a look at the Nordic model from outside the region. Elizabeth Shepherd views the Nordic model of digital archiving from the other side of the North Sea and finds that its strengths and weaknesses walk hand in hand. On the one hand, the centralised, regulatory framework of Nordic archiving has resulted in consistent practices and well-managed public archives; on the other, it has not always met the needs of other sectors in society, whether in the acquisition of private archives, meeting the research needs of non-academic and non-government researchers, or recognising the value of archives to users who are not researchers, including the subjects of the records, whose identities and lives may be wrapped up in records that are managed outside of their own control.

We hope this volume will initiate discussions about the Nordic model of digital archiving within the Nordic region and beyond. Datafication and data reuse are new challenges that archives around the world must address, much as they have had to come to terms with digitisation and digital records. What the Nordic model will become in the future will depend on how these new challenges are met. The objective of the IRFD-funded research network Digitization and the Future of Archives was to create a forum where Nordic, European, and international researchers and practitioners could meet to share insights, accomplishments, and critiques. We hope that the discussions continue as Nordic archivists continue to address pressing archival challenges and as the Nordic model continues to evolve.

Notes

- This point is made by Tim Knudsen (2000) with contributions from the Swedish historian Harald Gustafson and the Norwegian historian Berge Furre. Gustafson claims that the Swedish government in the 1700s had the most fine-meshed net of local administrators in all European countries.
- For a history of the Nordic archives see Harald Jørgensen (1968) encompassing the history of the Danish, Finnish, Faroese, Icelandic, Norwegian, and Swedish public archives.

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