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KONARSKI LECTURES

Managing “the shapeless mass” in the digital age

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ABSTRACT

In his 1927 “Archeion” article, *On issues of modern Polish archival science* (*Z zagadnień nowożytnej archiwistyki polskiej*), the renowned Polish archivist Kazimierz Konarski wrote of the challenge of managing the “shapeless mass” of modern archives in the 20th century. In this presentation, Canadian archival consultant and independent scholar Laura Millar examines the records and archives management challenge of the 21st century: managing the “shapeless mass” of electronic records inundating governments and organizations in the digital age.

The “flood” of physical and textual documentation that Dr. K. Konarski faced a century ago has become a torrent of invisible, omnipresent, elusive electronic records – photographs, audio recordings, databases, AI-generated data, and more – stored in countless computer hard drives, cloud storage systems, and personal digital devices. How can the archivist manage digital sources that are both ephemeral and eternal at the same time? To ensure society has the documentary evidence it needs, L. Millar argues that archivists must our shift attention away from the care of static, “old” archives and focus more directly on the work of capturing and recording the present. The digital age may transform our methods, but our mission remains the same: to help society capture, protect, and make available for use essential sources of documentary proof.

KEY WORDS

Konarski Kazimierz, archives management, records management, mass documentation, digital records, digital archives

Zarządzanie „bezkształtna masą” w erze cyfrowej

STRESZCZENIE

W pracy *Z zagadnień współczesnej archiwistyki polskiej*, opublikowanej w 1927 r. w „Archeionie”, znany polski archiwista Kazimierz Konarski pisał o wyzwaniu, jakim było zarządzanie „bezkształtną masą” współczesnych archiwów w XX w. Autorka, kanadyjska konsultantka ds. archiwów i niezależna badaczka Laura Millar analizuje wyzwania związane z zarządzaniem dokumentacją i archiwami w XXI w.: zarządzania „bezkształtną masą” zapisów elektronicznych zalewających instytucje rządowe i organizacje w erze cyfrowej.

„Zalew” fizycznej i tekstowej dokumentacji, z którą borykał się K. Konarski sto lat temu, przybrał kształt potoku niewidzialnych, wszechobecnych, nieuchwytnych zapisów elektronicznych – zdjęć, nagrań audio, baz danych, danych generowanych przez sztuczną inteligencję i nie tylko – gromadzonych na niezliczonych twardych dyskach komputerów, w systemach przechowywania w chmurze i osobistych urządzeniach cyfrowych. W jaki sposób archiwista może zarządzać źródłami cyfrowymi, które są jednocześnie efemeryczne i wieczne? L. Millar argumentuje, iż aby zapewnić społeczeństwu niezbędną do funkcjonowania dokumentację, archiwiści muszą

SŁOWA KLUCZOWE

Konarski Kazimierz, zarządzanie archiwami, zarządzanie dokumentacją, dokumentacja masowa, dokumentacja cyfrowa, archiwa cyfrowe

odwrócić uwagę od opieki nad statycznymi, „starymi" archiwami i skupić się bezpośrednio na pracy polegającej na zachowaniu i rejestrowaniu dowodów teraźniejszości. Era cyfrowa może zmienić nasze metody, jednak nasza misja pozostaje ta sama: wspierać społeczeństwo w zachowaniu, ochronie i udostępnianiu niezbędnych źródeł dokumentalnych.

Introduction[1]

I am honoured to be here in Warsaw to speak to you today, to deliver this year's Konarski Lectures. The lectures are named for your outstanding Polish archivist Kazimierz Konarski, a founding father of modern archival science and the author of the first handbook for archivists in Europe. I stand in his shadow with humility and gratitude as I take this opportunity to share some thoughts with you.

Let me start by clarifying my role. I have been an independent records and archives consultant and scholar since I finished my Master's degree in Archival Studies in 1984. Over close to 40 years, I have worked with agencies across Canada and internationally on the creation of sustainable archival programmes, including national governments, international aid agencies, the United Nations, the World

[1] The article is a transcript of a lecture by Dr. Laura Millar delivered on October 25, 2023 at the Warsaw School of Economics as part of the series of the international lectures "Konarski Lecures", organized by Polish State Archives. L. Millar has worked as a records, archives, and information management consultant and scholar for nearly 40 years, advising on records and archives programmes for governments, universities, non-governmental organizations, First Nations governments, churches, and businesses in such diverse countries as Canada, Bermuda, Trinidad and Tobago, Fiji, and Ghana. Two of her most recent consulting projects were with the World Bank in 2020, designing and writing a Records Management Roadmap and with the United Nations Secretariat in 2021, developing a strategic plan for digital records and archives management. She received her Master of Archival Studies degree from the University of British Columbia, Canada, in 1984 and her PhD in Archives from the University of London, England, in 1996. She taught for many years in the fields of records and archives management and is the author of dozens of publications and presentations. Her archival textbook *Archives. Principles and Practices*, first published in 2010 and revised in 2017, was awarded the Society of American Archivists' Waldo Gifford Leland Award in 2011. Her 2019 book, *A Matter of Facts. The Value of Evidence in an Information Age*, aims to raise public awareness of fundamental importance of evidence, including archives, to society. L. Millar has been recognized as an Honorary Senior Research Associate at University College London. In 2017, she was identified as a "Change Maker" by the British Columbia Museums Association for her contributions to the cultural field in the province. In 2021, she received the Emmett Leahy Award for contributions to international information and records management. In 2022, she was made a Fellow of the International Council on Archives in recognition of her support for international archival development, and particularly for her work on behalf of archival studies students and newcomers to the profession. She lives in the rainforests of western Canada.

Bank, and others. I am not an official representative of any Canadian archival agency, federal, provincial, territorial, municipal, university, or otherwise. I have seen the insides of dozens of archival institutions around the world, but I work independently, and my remarks today are entirely my own.

Polish and Canadian Contexts

I do not know enough about archival practice in Poland. One of the joys of encounters like this is the opportunity to learn more, and I am here to have you teach me as much as possible. What I have understand so far is this. Poland and Canada have much in common. We both have beautiful red and white flags; we both have about the same number of inhabitants; we both have complex and rich histories. But Poland's story is so different from Canada's.

Poland today stands upon the shoulders of centuries upon centuries of people living and working in the heart of central Europe: farming and trading, establishing kingdoms, commonwealths, and republics. Like a sheaf of wheat growing out of the ground, the archives that you have about Poland today came from the people and institutions of Poland across a rich and complex past.

The first and second world wars brought chaos, upheaval, and destruction to Poland. Archives were one of the many victims of the horrors of war, and the work you have undertaken since – to support reconstruction and to reconstitute and safeguard archival collections – has been monumental.

I understand your State Archives network has existed since 1919, though the oldest archive has operated consistently for over 200 years[2]. The State Archives of Poland is the primary government agency for archival management in the country. The integration of state-level archival services seems robust, and the work of the National Digital Archives – which I understand grew out of the Archives of Audiovisual Records – has resulted in an exciting online resource[3]. I was delighted to hear about your family archives initiative during a presentation by Małgorzata Grysbalska at the International Congress on

2 Some of the valuable online resources about Polish archival activity include the official website of the Polish State Archives. See State Archives, Homepage, 20 Feb. 2023, archiwa.gov.pl/en/, accessed 20 November 2023.

3 Information about the National Digital Archives can be found at Narodowe Archiwum Cyfrowe, www.nac.gov.pl/, accessed 20 November 2023.

Archives in Abu Dhabi two weeks ago. I also understand that other archival collections across the country tell the story of churches, universities, and local communities. And I am overwhelmed by the number of different digital resources providing access to archival documentation[4].

As I discuss the situation in Canada, I remind you that we are an exceptionally large country, with a small population for our size. It would take over 100 hours to drive from the western to eastern sides of Canada. I live in the very west coast of Canada, over 4,000 kilometres from our nation's capital in Ottawa.

Canadians are active peacekeepers around the world, but we have not experienced war on our own soil for centuries. We are a country that blends – usually successfully – Indigenous people with recent immigrants and with people, like my family, who have long and complex ties to the country. I am American born of Canadian parents. My father is Canadian born of American and English parents. My mother was Canadian born of Irish parents. I have lived some of my life on different sides of the Canadian-American border. Dual or multiple citizenship is a common reality for Canadians. We embrace our diversity as part of our identity.

Overview

Let me outline my talk today, which draws on K. Konarski's idea of the "shapeless mass" of modern archives, as he wrote in his 1927 "Archeion" article, *On issues of modern Polish archival science*[5].

The "flood" of physical and textual documentation that Dr. K. Konarski faced a century ago has become a torrent of invisible and elusive electronic records – photographs, audio recordings, databases, AI-generated data, and more. These sources of evidence are stored in countless computer hard drives, cloud storage systems, and personal digital devices. How can the archivist manage digital sources that are both ephemeral and eternal at the same time?

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[4] Among the many interesting archival resources is the Polish Archives website at Archive – Polish Documents. See Archive – Polish Documents, www.polishdocuments.com/archive/, accessed 20 November 2023. See also the EuroDocs wiki page of Polish historical documents, at EuroDocs, Poland: Historical Collections, www.eudocs.lib.byu.edu/index.php/Poland:_Historical_Collections, accessed 21 November 2023.

[5] K. Konarski, *On the Issues of Modern Polish Archival Science, Translated and edited by Bartosz Nowożycki*, "American Archivist" 2017, v. 80, no. 1 (Spring/Summer), p. 217.

I will build on Dr. K. Konarski's concerns about the "shapeless mass". I have divided my remarks into three sections.

First, I reflect on the nature of records and archives management in the 19th and 20th centuries in Canada. I believe Canada's archival history, like our sociopolitical history, has been quite different from yours in Poland, and I hope you will find the contextual information of interest and value[6].

Second, I look at the impact of digital technologies on the content, form, and nature of records, archives, and evidence. I highlight the challenges archives and records professionals face in our effort to protect sources of evidence in a digital age.

Third, I present suggestions for action. How do we manage this "shapeless mass" of digital evidence? In this section, I will draw on some of the ideas I address in my 2019 book, *A Matter of Facts. The Value of Evidence in an Information Age*.

So, to begin.

Part 1: Archives in Canada

Let me offer an exceptionally brief historical overview of Canada, to place the archival story in context.

What is now Canada was home to Aboriginal people for millennia. Canada as a distinct geopolitical entity emerged as French and English missionaries and fur traders arrived in the 16th and 17th centuries. They were followed by refugees from the American Revolution. People loyal to the British Crown, loyalists like my own ancestors, were expelled from the new United States in the late 1700s, and many were given grants of land in the British colonies of Canada. My ancestors were ship builders in the Maritime provinces of eastern Canada.

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6 My review of Canadian archival history here is brief; for those who would like to know more, I direct you to two articles I wrote on Canadian archival history and development, published in the Canadian journal "Archivaria" some years ago. See: L. Millar, *Discharging Our Debt. The Evolution of the Total Archives Concept in English Canada*, "Archivaria" 1998, vol. 46, pp. 103–146, https://archivaria.ca/index.php/archivaria/article/view/12677, accessed 20 November 2023 and eadem, *The Spirit of Total Archives. Seeking a Sustainable Archival System*, "Archivaria" 1999, vol. 47, pp. 46–65, https://archivaria.ca/index.php/archivaria/article/view/12697, accessed 20 November 2023. This research was based on my doctoral studies at the University of London, England, under the title "The End of «Total Archives»?. An Analysis of Changing Acquisition Practices in Canadian Archival Repositories", completed in 1996.

Canada became a Commonwealth under the British Crown in 1867. As more immigrants came to Canada, from Europe, Africa, Asia, the Caribbean, and the Pacific, the population grew more diverse. Today, Canada's population of 40 million people represents over 250 different ethnic origins. The largest diaspora communities in Canada are Chinese, with 1.7 million people, Italian, with 1.6 million people, Indian, with 1.3 million people, and Ukrainian, with 1.4 million people. Diversity is at the heart of Canadian identity.

Brymner and the Search for Archival Theory

In 1871, the government of Canada established a national archival agency – the Dominion Archives – to collect and preserve the documentary memory of the country. This is only four years after the country itself was formed. The first archivist, Douglas Brymner, who served from 1871 to 1901, was a journalist. Administratively, the archival agency was placed within the office of the Minister of Agriculture. Not a typical start to archival development.

D. Brymner was not allowed to access any Canadian government records that were still in use; all the documentation under the control of government officials were off limits to him. His remit was to collect the "old" stuff. As he said, he was given the title of archivist, along with "three empty rooms and very vague instructions"[7].

Looking for Guidance

To help him with his work, D. Brymner looked for guidance about what archives were, and where they could be found. He looked for definitions and theories to frame his work. This was all before the time of Dr. K. Konarski in Poland, Hilary Jenkinson in England, and Theodore Schellenberg in the United

[7] D. Brymner's words are quoted in many archival articles, one of the earliest of which is J. Atherton's *The Origins of the Public Archives Records Centre, 1897–1956*, "Archivaria" 1979, vol. 8, pp. 35–59, https://archivaria.ca/index.php/archivaria/article/view/10728, accessed 20 November 2023. For more information on D. Brymner's life and work, see the biographical entry for him in the *Dictionary of Canadian Biography.* See:. G. Wright, *BRYMNER, DOUGLAS*, [in:] *Dictionary of Canadian Biography*, vol. 13, Toronto 2003, http://www.biographi.ca/en/bio/brymner_douglas_13E.html, accessed 20 November 2023.

States. In the absence of written manuals, D. Brymner and his staff members travelled to the United Kingdom and France to learn from archivists there. What he learned was that most of his colleagues defined archives as the documentary evidence of actions, transactions, communications, decisions, and ideas. Government decrees, financial ledgers, and correspondence – physical, tangible sources of information and evidence. The custodial repositories he studied held documents that had been created in the past and kept for reference and research. This concept of archives, articulated in European manuals and in English and French practice, was steeped in Roman law, Greco-Roman recordkeeping traditions, and Western approaches to records and archives[8].

This, of course, is the definition we generally accept in the archival world today. It underpins the guidance provided by organizations such as the International Council on Archives, and by national archival organizations. As you will see, I see problems with that definition. D. Brymner had troubles with the definition too, but in quite different ways.

But let's imagine D. Brymner, sitting in his empty rooms, looking for the documentary evidence of the history of Canada. Even though, as I have mentioned, Indigenous people had occupied the country for millennia, they didn't produce records as defined by the likes of Samuel Muller, Johan Feith, and Robert Fruin. And the records that did fit the definition – the paper records of missionaries, traders, settlers, and colonial officials – those had all been transported back to England and Europe when the colonial representatives, military officers, and others went back home. Many of those people still living and working in Canada hadn't yet produced records old enough to fit the concept of archives.

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[8] It was long assumed that D. Brymner turned to the now-famous Dutch Manual by S. Muller, J.A. Feith, and R. Fruin (*Manual for the arrangement and description of archives. Drawn up by direction of the Netherlands Association of Archivists, translation of the second edition by Arthur H. Leavitt, with new introductions by Peter Horsman* [et al.], Chicago 2003), first published in Dutch in 1898, but this theory is unlikely, since the first English edition of that work did not appear until 1940. See E. Ketelaar, *Archival Theory and the Dutch Manual*, "Archivaria" 1996, vol. 41, pp. 31–40, https://archivaria.ca/index.php/archivaria/article/view/12123, accessed 20 November 2023.

Focus on copying

What is an archivist to do? How can you preserve original documents if you don't have access to original documents? D. Brymner met this challenge by collecting private documents from settlers and military officials, and he filled in the gaps with an active – I would say extreme – copying programme. He hired staff to live in England and France for months or years, copying colonial records and personal papers held in storage vaults in national and regional repositories. By the mid 1880s, D. Brymner's staff of copyists had transcribed thousands and thousands of pages of original documents. This copying programme was so robust, that our national archival repository still had staff in Europe actively copying when I began my archival career forty years ago.

But what about provenance, original order, custodial history, or the idea of a fonds? Those matters were not of much interest to D. Brymner. His goal was to collect anything that would help tell the story of Canadian history. Content was much more important than context.

Arthur Doughty and the Collecting Impulse

This all-encompassing definition of archives was embraced by D. Brymner's successor, Arthur Doughty, who served as Dominion Archivist from 1904 to 1935. By the time A. Doughty took on the role of Dominion Archivist, Hilary Jenkinson had written his *Manual* in England. Dr. K. Konarski was actively leading archival work in Poland. The idea that archives were defined by their content, context, and structure – that concepts of provenance and original order and the fonds were central to archival management – these were central ideas in Europe.

As Dr. K. Konarski argued, the uniqueness of the different items in a body of archives – the different documents or photographs or ledgers – was intricately connected to their placement within an aggregation of materials. The aggregation – the collection of archival materials, in their original order, became known as the "fonds". Dr. K. Konarski explained this idea in his article from 1927 – and I appreciate I am citing an English translation of his words in Polish, which is ironic and inadequate, and I beg your indulgence:

> Records… pass through all departments of the office. They cross paths many times, and merge and fuse with each other… these threads,

> crossing in all directions, create a closed consistent organic whole. This whole we will call an archival fond[9].

To provide this physical, time- and place-based service, archivists brought these aggregations of archival materials into a custodial environment, a storage repository, and then the archivist appraised, arranged and described the materials. The fonds was central to archival work, wasn't it?

A Broad Definition

Not to A. Doughty. As he wrote in a public report, "it is immaterial to the enquirer, whether a letter of a Governor has been found in a particular collection in Europe, or in Canada"[10]. The practice started by D. Brymner and continued by A. Doughty soon became a defining principle of Canadian archival work. Anything that helped explain Canadian history could be considered archival. I must add, having read some of A. Doughty's personal correspondence myself, I think he was more than a collector. He was a hoarder. "Zbieracz" in Polish. Canada's national archives was, he believed, his creation. The collections were his to shape and define. And he collected everything, from documents to paintings to clothing to military equipment. So, one of the pillars of Canadian archival theory was not the concept of the fonds; it was the idea of totality.

Canada and our Neighbour to the South

Another key pillar in Canada was the central role of government. This vision was embraced by the archival community and by the population at large. Let me explain the origins of that idea.

Canada's closest neighbour has always been the United States. We are neighbours, and we are friends. We have fought wars against each other, and we have fought wars alongside each other. We are often referred to as "children of a common mother". But we do suffer from a lot of sibling rivalry!

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9 K. Konarski, *On the Issues*..., p. 217.

10 A. Doughty's words are from his official report for 1905: see Canada, Archives, *Report on Canadian Archives* (1905), p. ix, quoted in L. Millar, *Discharging our Debt*..., p. 110.

From the creation of the American colonies in the 1600s, Americans have always believed in the separation of church, state, and citizen. Their national identity is built on the idea of limited government. After all, they created their country to kick out George III, King of England. We Canadians defined ourselves by staying in the good books of the same king and his descendants. We are a sovereign nation, but we are part of the British monarchy. King Charles III is our king. And most Canadians don't really mind.

Canadians tend to have a benevolent opinion of our government. Or governments, because we have many, including federal, provincial, regional, municipal, and First Nations. We complain about government, but mostly, I think, because we think our public sector should be doing more, not less.

In the archival realm, government was seen as directly responsible for the preservation of archives. And those archives were defined broadly, coming from all sources, public and private, copies or originals, textual, visual, or oral. Distinctions based on medium, form, or purpose were much less important than the idea that historical materials should be kept, and that the government should be responsible for this work.

Total Archives

So, you have D. Brymner responsible for archives but not having any archives in custody – he had to find some. You have A. Doughty believing that anything that crossed his threshold should be kept in the archives. And you have a population that sees the government as a central figure in our cultural lives.

This broad archival vision was entrenched in the 1970s. Celebrating the 100th anniversary of the Dominion Archives of Canada, Dominion Archivist Wilfred Smith argued that public archival institutions should be responsible "not only for the reception of government records which have historical value but also for the collection of historical material of all kinds and from any source which can help in a significant way to reveal the truth about every aspect of Canadian life"[11].

As you can imagine, sustaining a "total archives" programme of archival management is not easy for any government. Money doesn't grow on trees, as

[11] W.I.l.l. Smith, *Introduction*, [in:] *Archives: Mirror of Canada Past*, Toronto, 1972, pp. 9–10, quoted in L. Millar, *Discharging our Debt*..., p. 117.

we say in English. Collecting private archives meant diverting resources from the care of government records – how could a "total archives" repository serve two masters, the government official and the research public?

Also, in a country as large as Canada, serving a population across thousands of kilometres was a struggle. Over time, Canadians realized that having one archives in Ottawa was not terribly logical. Provinces and territories established their own archival institutions, and then universities and colleges, churches and municipalities, and community groups and historical associations.

In 1871 there was one national archival institution and a handful of local collections. By the 1970s, there were about 50 archival institutions across the country. By the 1980s there were about 200. Today there are over 1,000 archival institutions across Canada, of various sizes and shapes. Many of these institutions adhere to the "total archives" philosophy: they acquire and manage their institution's official records and they also collect and preserve non-institutional documentary evidence in all media and all forms[12].

The Canadian Archival System

Archivists invented a term for this distributed approach, which saw archival institutions scattered across the country, many of them funded directly by governments. We called it the Canadian Archival System (see Illustration 1). As part of this system, the federal government provided, and still provides, funding for a range of archival work. The government contributes about 1.5 million dollars a year to help archival institutions clear up backlogs of unprocessed archives, arrange and describe archives, and build online descriptive tools.

[12] For a discussion of the growth in archival institutions, see L. Millar, *Coming Up With Plan B. Considering the Future of Canadian Archives*, "Archivaria" 2014, vol. 77, pp. 103–140, esp p. 112, https://archivaria.ca/index.php/archivaria/article/view/13485, accessed 20 November 2023.

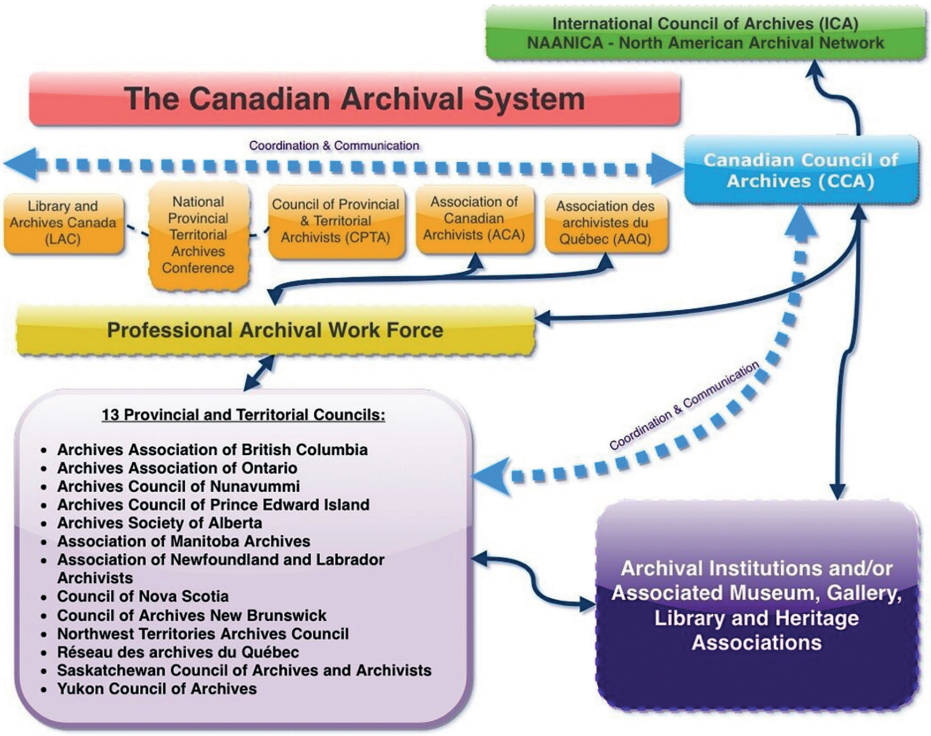

Illustration 1. The Canadian Archival System. Source: Yukon Council on Archives: https://www.yukoncouncilofarchives.ca/, accessed 21 November 2023.

The government funded the creation of our national descriptive standard *Rules for Archival Description* – a precursor to the *ISAD (G) international standard for archives*. The funds have also been used to establish an archival advisory programme, which allowed provinces and territories to hire full- or part-time archival advisors, who provide education and training, conduct site visits and provide advice for archival institutions in the region in which they are based. The success of these different initiatives has varied, and the funding is meagre: 1.5 million dollars does not go far across 1,000 institutions[13].

[13] The CCA's *Rules for Archival Description* is available online at Canadian archival standard. Rules for archival description, May 2004, https://archivescanada.ca/wp-content/uploads/2022/08/RADComplete_July2008.pdf, accessed 20 November 2023. I discussed the evolution of, and strengths and weaknesses of, the CAIN initiative in 2003, in a a web publication for the Association of Canadian Archivists: L. Millar, *Seeking Our Critical Vision: Speculations on the Past, Present, and Future of CAIN* (Web Publication No. 3), 19 May 2003.

It is also worth noting that in 2004, Canada's National Archives and National Library merged into one agency, Library and Archives Canada. This blended national library and national archives became the home of government archives, private archival collections, publications, maps and plans, documentary art, photographs, stamps and seals.

So here we are in 2023. We have one blended national archives and national library, ten provincial and three territorial archival agencies, and hundreds of municipal and regional government archival operations. We have university and college archives, art gallery archives, church archives, and special interest archives. We have an increasing number of First Nations archives, as many Indigenous groups have established legal claims to land and taken on responsibilities for economic and social development in their communities, which means they are creating physical and digital documents that need to be protected. The list of archival institutions is just about endless.

Canadian archivists are generally rather proud of the history that led to this "total archives system". We value the role of government in archival development, and we recognize that the story of society cannot be told only from government records – private archives, and materials in all media and forms, help to document our history: national, regional, or local. But the truth is, without public funding, this comprehensive approach to archival service could easily collapse. I have been a critic of this approach, which I fear is increasingly unsustainable.

Part 2: The Shapeless Mass in the Digital Age

Next we turn to the challenge of the digital, which is, I believe, is putting extraordinary pressure on archival services around the world, including in Canada. So, we arrive, at last, to the 21st-century reality of K. Konarski's "shapeless mass."

Computerization has fundamentally changed the nature of work, life, and archives from Canada to Poland and from South Africa to China. Archival institutions around the world are struggling with the challenge of acquiring and preserving digital documentation.

The impact of digital technologies is international, but I believe every society has to consider its own historical and cultural realities when deciding how to act. I began my remarks today with an overview of the social and cultural realities of archival work in Canada because I think cultural context is so very important.

Archival work in Canada is difficult in part because we have built our philosophy of archives on a custodial model and on a broad and vague definition of archives. There is more focus on collecting "old" materials and less on managing "new" evidence from the start.

With our custodial focus, records management and archives in Canada – and also in the United States – are defined as very different areas of work. We have different professional associations and different interpretations of professional roles and responsibilities. I am often rebuffed when I argue for a closer continuum of care between current records and historical archives.

But in a digital world, we will not have good archives at the end if we don't have records and evidence from the start. It is not that I don't care about culture and heritage. I began my career in archives because of my deep interest in the value of history and culture. But selling culture, heritage, and history is hard, especially to governments with extensive public responsibility and limited resources.

Today, virtually all of society's records start life in digital form. Where would we have been during the Covid-19 pandemic if we didn't have Zoom to keep us connected? How could scientists have developed Nobel-prize winning mRNA technologies without computers? How would we keep airplanes in the sky and ships crossing the sea without digital resources?

The digital products of these communications and interactions – the materials we archivists want to manage and preserve for posterity – they are born, they live, and often they die in the hands of their creators, before the ever make it into any kind of "archival" environment. How can our archives reflect that "shapeless mass"? Dr. K. Konarski saw this coming, didn't he? As he wrote in 1927:

> Twentieth-century archival science is in peril. Modern bureaucracy has rapidly undergone qualitative and quantitative changes. Gone will be the manuscripts along with their meaning when machine prints replace them. Much of the semi-official business will be absorbed by the phone. […] [the] veritable "geological layers" of paper […] will flood the archives with its shapeless mass […] The tragic deliverance from this flood would be perhaps the fact that current records will disintegrate into ash long before they will reach the archives[14].

The traditional archival institution in Canada might not receive archives for ten or twenty or a hundred years after the records had been created. If we don't

[14] K. Konarski, *On the Issues…*, p. 226.

take action from the start, current records will disintegrate into ash – or digital dust – before they make their way into our care.

The Explosion of Digital Technologies

I wonder what poor Dr. K. Konarski would think if he were with us today. According to the statistical website Statista, people send and receive close to 350 billion emails around the world. Every day[15]. Over 33 million Canadians own a cell phone. That is over 90% of the population. Statisticians are now counting the annual growth in data created and shared in zettabytes. Can one even imagine a zettabyte[16]?

What does the dramatic growth in information technologies mean for our efforts as keepers of archives? Of the small sliver of documentary memory worth keeping? Computers shatter traditional assumptions, don't they?

Here's my view of the impact of digital technologies on archival practice.

Time is an enemy

Archivists cannot wait for documentary evidence to become old before we act. We cannot wait for digital records to be created, used, stored, appraised, and then preserved in order to capture the core evidence needed for posterity. How can we extract the small portion of valuable emails from the 350 billion sent each day by waiting for a decade? We will only be able to keep documentation if we play a role from the beginning.

Traditional archival methodologies are challenged

Acquisition, arrangement, description, contextualization, access, and use are all based on the idea that archives can be defined as fonds. Every methodology

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15 See: Emails sent per day 2025, 22 Aug. 2023, https://www.statista.com/statistics/456500/daily-number-of-e-mails-worldwide, accessed 20 November 2023.

16 See: N. Blair, *Internet and Cell Phone Plans and Usage Statistics in Canada*, https://madeinca.ca/internet-and-cell-phone-plans-and-usage-canada-statistics/, accessed 20 November 2023.

we use today starts from the assumption that some "whole" body of archives will comes to us with some measure of provenance and original order as a defining feature.

Consider this. Much of the evidence essential to charging and convicting the people who attacked the United States Capitol in 2021 was not created by the American federal government. A great deal of valuable documentation was posted on Facebook, Instagram, or Twitter – now X – by the people who were there, as rioters or bystanders. Are we going to wait to acquire the whole body of archives, the fonds, of Joe or Jane or Fred who witnessed the events in person, when they decide to donate their archives to a repository twenty or thirty years from now? Are we going to collect what evidence we can from social media sources? And why are we collecting that evidence? For history? Or to help uphold justice and the rule of law?

Provenance, original order, and the fonds are all contextual elements in archives. But modern evidence comes with complex multiple provenances, with no linear original order as we understand it, and not necessarily as part of a cohesive aggregation. If we wait for the "whole" to exist before we participate in its care, we will end up deferring essential recordkeeping work until it is too late.

Sources of evidence are being created everywhere

Evidence intersects governments, organizations, and people. In a digital world, the evidence of us is not necessarily made by human hands. How do we deal with closed circuit television footage – CCTV cameras are everywhere, and the images they capture are used as evidence in law? Are they also evidence for archival and societal purposes? If so, how do we capture them? What do we capture? How do we preserve it?

What about generative artificial intelligence? The evidence created using technologies such as Chat GPT or Google Bard is evidence of something, isn't it? What is the archival role in capturing and protecting such materials? How do we shape our policies, procedures, and methodologies to accommodate these digital realities? The future is here, and we must deal with it. How?

A Closed Loop

In my country of Canada, the foundation of archival practice has been built on public service and public funding, and on an assumption that custodial care will be the norm. Our Archival System is what scientists call a "closed ecosystem" – a closed loop. Look at Illustration 1 again. Where is the public? Where is the creator of records, or the user of archives? They are not part of the scheme. How is an ecosystem sustainable if it does not invite new sources of energy? People need oxygen to breathe. Archives management needs records creators and records users to sustain our archival life.

Digital technologies shatter the assumption that the public sector can and should be a primary funder of archival work. The organizations that create sources of evidence must be encouraged, if not required, to take responsibility for protecting those sources of evidence, not just for narrow legal reasons but because our world is richer and more accountable when all sectors of society recognize the value of facts, truth, and evidence.

The foundation of archival practice in Canada also relies on archivists – a poorly recognized and poorly respected class of worker. We are underpaid and overworked, yet we carry on with the zeal of a missionary. But as my dear Canadian friend and colleague, Richard Valpy, argued in a seminal 2016 "Archivaria" article, archivists are not missionaries. As he wrote,

> Archival professionals can advise society on the "how" of archival management, and archival institutions can provide the support system for housing, protecting, and making available those archives that come into their custody. But neither professionals nor institutions can "make" society create and keep good records. We cannot make the horse drink[17].

Do you have an expression like this in Polish? You can lead a horse to water but you can't make him drink. It seems to appropriate here. Archivists cannot save archives if the creators of records, and the society at large, want those archives to exist. We cannot make the horse drink. If we do not find a new approach to the archival endeavour, then Dr. K. Konarski's ashes will, indeed, turn to digital dust.

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[17] See: D.R. Valpy, *From missionaries to managers. Making the case for a Canadian Documentary Heritage Commission*, "Archivaria" 2016, vol. 82, pp. 137–163, https://archivaria.ca/index.php/archivaria/article/view/13584.162, accessed 20 November 2023.

Part 3: Taking Action

Much of my work now is advocacy. I think one of the most important actions we in the archival community can take today is to engage with the public, to raise awareness of the critical importance of evidence as a source of facts and truth. This awareness raising will help us achieve other critical results too.

Strategic action is needed in four areas. The first relates to the legal and regulatory framework in which records and other sources of evidence and information are created and managed. The second relates to the design of information technologies. The third relates to the critical task of raising public awareness of the value of records, archives, and other sources of evidence. The fourth relates to our role as archivists in society.

Action No 1: Legal and Regulatory Frameworks

First, our governments need to strengthen the legal and regulatory frameworks in which records, archives, and other sources of evidence are created, used, and managed. Societies need strong, sustainable, enforceable records and information legislation and regulations. I understand Polish requirements for records classification and retention/disposition are quite strong, and I congratulate you on this achievement. But we also need stricter controls around the design, development, and implementation of digital technologies. The European Union's General Data Protection or Regulation, or GDPR, is a valuable tool. But GDPR and similar legislative mechanisms need to include formal recognition of the enduring value of evidence. It's not "just" data. It's not "just" information. It can stand as proof.

Sebastiaan van der Lars, founder and CEO of the Trusted Web Foundation, has argued that strengthening data and information legislation is necessary to support integrity and authenticity. As he said, "Consumers should demand transparency and…accountability… If information impacts your life, as a citizen you deserve the freedom to verify how information changed over time, and who the sender is"[18].

[18] See: S. van der Lans, *Will Europe Lead the 'trusted Web' after GDPR?, The Trusted Web*, 21 Jan. 2021, thetrustedweb.org/europe-trusted-web-gdpr/, accessed 20 November 2023.

As S. van der Lars has argued, and I agree, integrity of evidence must be a pre-condition of records creation, not an afterthought.

Action No 2: Evidence by Design

Second, those who design and distribute – and use – information technologies need to incorporate stronger record making and evidence protection protocols into systems. If we are going to have evidence for present and future use, we need to build "evidence by design" into computer systems. Archivists also need to insert our expertise into the development of technologies for making and keeping information and records. As I have said many times, we cannot wait to acquire "old" archives so that we can then examine their provenance and determine if they are authentic.

We can and should continue to contribute to the development of tools to capture and preserve authentic digital signatures, to blockchain or similar technologies for recordkeeping, and to the work of coding software and firmware to authenticate sources of information.

Andy Parsons, Senior Director of the Content Authenticity Initiative at the computer software company Adobe, has taken steps by developing technical standards for certifying the source and history of media content. Under the oversight of a body called the Coalition for Content Provenance and Authenticity, or C2PA, Adobe is developing content authenticity tools that sit within hardware and software.

For example, coding is being build into the software that operate digital cameras so that GPS, tracking, and descriptive data are captured the moment an image is created. The software then ensures this metadata persists when the images are exported into other repositories, from digital storage systems to news feeds.

Automation can help us here, replacing the sometimes-erratic capture of metadata by humans – which requires the creator or holder of information to remember to add contextual data – with a more consistent method of contextualizing evidence[19]. Authenticity needs to be guaranteed from the beginning.

[19] See: The Coalition for Content Provenance and Authenticity (C2PA), C2PA Specifications, c2pa.org/specifications/specifications/1.3/index.html, accessed 21 November 2023. See also

Action No 3: Public Awareness

Third, the public needs to understand why records, archives, and other sources of evidence matter. We archivists cannot make this change in public perception happen by ourselves: we must reach out and build bridges across disciplines and across sectors of society. We must engage more widely with others in the information community and across society.

Archivists need to be advocates. The more we engage with the public about the value of archives, the more we gain their support. We need to change how we communicate. If we focus on the past, on the old, people will not understand their role in the digital archives of today.

We need to emphasize evidence and authenticity. We need to explain how documentary evidence serves as an antidote to fake news. We need to speak less about research and scholarship and more about rights, responsibilities, identity, and memory. This shift in language does not change who we are. But as the materials we work with change, and our processes change, our relationship with the public also needs to change.

Action No 4: The Archival Role

Fourth, archivists need to re-examine our role and duties in society. What is our professional identity? We can no longer think of ourselves as custodians only or custodians first. Sometimes we will need to be advisors. Sometimes we will need to be activists. We need to expand the understanding of what it means to "be an archivist". We must look not at our role in professional isolation but as part of a wider vision to support the recognition of facts and truth and evidence as antidotes to lies and disinformation. Taking a strategic approach is essential.

Our professional associations have a role to play in clarifying, or redefining, the archival role, and in implementing, stronger, more enforceable, and more relevant organizational and ethical frameworks for our work. In my presentation to the International Council on Archives in Abu Dhabi this month, I called on

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an interview between Sebastiaan van der Lans and Andy Parsons, founder of the Content Authenticity Initiative at Adobe: YouTube, Digital Content Provenance with Andy Parsons and Sebastiaan van der Lans. Content Authenticity Initiative (CAI) at Adobe, 11 Jan. 2023, www.youtube.com/watch?v=nQNTMicYu6E, accessed 21 November 2023.

the ICA to completely overhaul our international professional codes of ethics, to reflect the changes in archival responsibilities in a digital age. I have called on national and regional archival associations to do the same. I wait in hope.

Intersections and Connections

I want the public to understand the value of all types of documentary evidence: digital and analogue, public and private, creative and corporate. But archives are not just about risk and bureaucracy. Archives are about stories, memories, and connections. And archives as defined in Western law are not the only way that societies remember.

When I began my story of the development of archives in Canada, I told you about our very Western, document-focused approach to evidence. The voices of Indigenous people were silent in this approach, as were the voices of immigrants and others whose cultures and identities were not shaped through the creation of physical sources of proof.

Canadian archivists are starting to see that our foundation for archival practice – based on the idea that evidence is static, physical, and documentary – leaves out whole sections of our national story. For example, a wampum belt is a form of evidence in an Indigenous context: such textile productions were often created to mark agreements between different communities. But the context in which a wampum belt is understood is not documentary.

The belt alone does not tell the story: it is traditionally cared for by a member of the Indigenous community in question. That person interprets the belt, providing the contextual information, the "metadata," as it were. That information resides in the memory of the keeper and is passed down formally from one generation to the next. Putting a human keeper in an acid-free box isn't possible, is it? Describing that keeper's memory according to *Rules for Archival Description* and *ISAD(G)* is problematic. But that belt, and that keeper, form part of the memory of that community. This different type of memory should be acknowledged, even if – or especially if – its care involves quite different protocols from those we typically apply in archives.

CCUNESCO Symposium

I recently had the opportunity to facilitate a virtual symposium, held under the auspices of the Canadian Advisory Committee for Memory of the World and financed by the Canadian Commission for UNESCO, the International Council on Archives, Heritage Saskatchewan, and Western University in Canada. The symposium brought together a dozen experts and an audience of over 200 from around the world. Meeting over Zoom, we spend a day considering the relationships between records, archives, and other forms of cultural expression, from oral traditions, songs, and folklore to crafts and living heritage.

One of the lessons I learned from this experience was that archivists must keep redefining the concept of evidence to meet the dynamic realities of technology and society. But we must also acknowledge that physical or digital documentary evidence is only one form of cultural expression. Some of those expressions hold evidence; others less so. We should acknowledge their existence and then determine how to protect them.

Conclusion

Let me end my presentation with an articulation of my own vision for the future of records, archives, and evidence. I want to support the existence of sources of evidence – documentary and otherwise – as the foundation for societies that are enlightened, democratic, respectful, and self aware. I want to ensure archives play a central role in holding institutions and agencies – public and private – accountable for their actions, so they are transparent, effective, and democratic. I want people to be able to draw on records, archives, and evidence as a means for forming a sense of personal and collective identity, for sharing memories, and for building a sense of belonging. I want to see records and archives as a lever for helping people work together for the common good while respecting each other's autonomy and agency.

To achieve that vision for the future, my efforts now are on raising awareness of the importance of a collective consciousness, which comes with a shared understanding of "truth" and of facts and evidence. This doesn't mean one and only one truth, but it does require a recognition of the value of fact-based truth,

which depends on unfettered access to sources of evidence, including but not only documentary materials such as data, records, and archives.

I also believe in the power of artifacts and stories, art and music, and other types of tangible and intangible heritage. My specialty is documentary evidence, and I don't pretend to those other areas of knowledge, but I recognize their value, and I support their protection.

My vision speaks of diversity and inclusion, which are defining feature of Canadian culture. As a recent advertising campaign for our national broadcaster says, "It's not how Canadian you are. It's who you are in Canada". But I believe that archivists around the world share the same vision. We want the public to value evidence. We want decision makers to strengthen legislation and regulations around the creation and management of information and evidence. We want improved digital technologies that protect the evidential value of digital content. We want the world to recognize that we are ethical, trustworthy professionals, dedicated to the public good and helping to make change through our area of expertise.

There will always be a role for the archivist. Some of us will still be custodians, working in archival repositories. Others will focus less on what is in front of us and more on how we liaise with our partners in the wider ecosystem. We may be strategic planners, teachers, and advisors. We may be more activist than archivist. I still see us as evidence specialists, managing sources of documentary proof in different ways in different contexts.

Let me end on a hopeful note. K. Konarski saw a shapeless mass. I see a tangled pile of electronic wires. But perhaps we are both looking at something that can be crafted into a beautiful product. Working together, we can make it. Thank you.

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