Digitally Mapping the Indian Day Schools and the RG10 School Files Series in Canada

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ABSTRACT
This article explores the process of creating a digital history resource on the topic of the Indian Day School system in Canada. It provides an overview of how the website www.indiandayschools.org was created by a team of history educators who built on the work and legacy of Indigenous activist Raymond Mason. The new open-access, inquiry-based resource displays all 699 recognized Indian Day Schools on an interactive map and integrates thousands of optimized files from Library and Archives Canada’s RG10 School File Series. This article details the challenges we encountered while undertaking this project and how digital Indigenous history can be a powerful tool for reconciliation.

Introduction
On March 20, 2022, Indian Residential and Day School survivor, Elder, activist, holder of an honorary doctorate, and community leader Raymond Mason passed away after a battle with cystic fibrosis. His lungs and body still carried the wounds of
his past, but his spirit had uplifted thousands of Indigenous survivors across the country. Over the course of his life, he created Spirit Wind, the largest Indian Residential and Day School Survivors’ organization in Manitoba, and won over $5 billion in total compensation across the Indian Residential and Day School class action lawsuits.

In February 2018, one of the authors first spoke with Raymond about his life and his work in making sure the story of Indian Day Schools would not be forgotten. Ray told him that he had spent the last nine years of his life fighting the federal government through the legal system but was finally getting close to a settlement. He was tired and burned out, having worked relentlessly since 1986 to seek justice for his people. While he was successful in 2006 when the Indian Residential School Settlement was announced and was in attendance for Stephen Harper’s apology to parliament, he was frustrated that Indian Day School survivors had been left out of the settlement. Ray had heard the same kind of traumatic stories from survivors of both types of schools, and many members of his own family had also attended day schools, including his wife, Rhoda Mason. Approximately 200,000 Indigenous children attended these racially segregated Indian Day Schools, which were funded by the federal government, and many suffered from abuse. Raymond told the CBC about his experience in the day school he attended:

I had TB as a child, and I couldn’t speak English. All I could speak was my native tongue, and when I went to day school here, I was punished for it…

Every time I tried to speak, I couldn’t speak English, so I got strapped and I got my hair pulled, my tongue pinched, and I was ostracized and I had to stand on a corner and balance a book on my head for a long, long time, seemed like hours. And then, after that, I had to write on the chalkboard: “I will never speak Indian again” about 100 times.

These experiences drove him to advocate relentlessly for other survivors of Canada’s colonial education system, which he viewed as a single institution comprising both day and residential schools.

In 2009, Raymond decided to initiate a class action lawsuit with his friend Garry McLean and colleague Margaret Swan. They travelled throughout the country gathering support and seeking lawyers who could aid their legal battles. Raymond was a key activist who had pushed with his group Spirit Wind for all survivors to receive justice and some form of compensation. Shortly before the lawsuit was settled, he told the CBC: “The urgency is to get it through as quick as possible so that the people can get what they deserve before they pass on.” It was estimated at that time that over 2,000 Indian Day School survivors were passing away every year, increasing the pressing need to share their stories.

This concern was linked to Raymond’s belief that we urgently require better educational resources to support further learning on this topic by future generations. As his health worsened over the last few years, he became increasingly worried that the story of Indian Day Schools would not be told. In 2020, he co-wrote an article published in The Conversation, “Indian Day School Survivors Are Seeking Truth and
Justice,” in which he spoke about these concerns. He also described a project he hoped to see realized that would “provide an online resource that visualizes the location of all Indian day schools and describes what archival files are available.” The authors have worked together over the last two years to realize this vision and fulfill Raymond’s request.

In one of our final conversations with Raymond, we showed him the website that is the focus of this article: www.indiandayschools.org. He was both glad that the resource could now be shared with others — especially within education — but also sad as he reflected on the communities he had attended and their survivors who did not live to see the settlement or to receive recognition for what had happened to them. Raymond’s spirit has inspired this research and will continue to be a guiding presence as we develop additional tools to remember the history and legacy of Indian Day Schools in Canada. Since Raymond’s passing in March 2022, the need to digitize and make records accessible has continued to increase. This article outlines our work in creating a digital history map of Indian Day Schools in Canada and proposes several avenues to move forward within history education to learn more about this past and present.

Positionality and Project Background

Indigenous research methodology considers it imperative for researchers to be held accountable to all of their relations and to introduce themselves. Anishinaabeg scholar Kathleen E. Absolon explains: “You are in the centre of this process, and it is your location and positionality that generate the pathway. You are accountable to yourself, ancestors, and Spirit.” In creating a resource on Indian Day Schools, the authors made various decisions and compromises on how to best present and share this history within the constraints of such a digital medium, so it is crucial to understand our background and approach.

The first author is a settler Franco-Ontarian educator who has conducted research at the crossroads of digital history, inquiry-based learning, and user experience design. He has been working alongside researchers of Canadian history education and Indian Day Schools since the inception of the digital history project described in this article. He is an Ontario certified teacher and has taught Canadian history at the high school level.

The second author is a mixed settler-Anishinaabe historian who has studied the history of Indian Day Schools in two different First Nation communities over the last five years. The opening narrative was about his relationship with Raymond and how he was inspired to begin creating a digital history resource.

Features of the Federal Indian Day Schools Map

Collaborative work between the two authors and a supervisor began in September 2020 at Queen’s University. In May 2022, we publicly released a web-based map of the Federal Indian Day Schools in Canada (henceforth called the FIDS Map).
Its development grew out of a need, with no apparent map of the day schools to be found on the web—interactive or static—despite the aforementioned federal lawsuit and a growing awareness around the subject. Building on the digital infrastructure of an earlier collaboration on the topic of educators in late antiquity,10 the opportunity was taken to develop a zoomable, searchable, and filterable platform to visualize and research Canada’s colonial Indian Day Schools system. By its nature, the FIDS Map was understood by its authors to have the potential to support teaching and learning in the history classroom.

One of the highlights of the previous interactive map on late antiquity is its inherent potential to pique curiosity. Visitors are immediately greeted with a map, data points, and various buttons to interact with, each producing instant onscreen feedback when they are manipulated. The FIDS Map preserves this quick-start approach, albeit with a splash screen that presents the visitor with a land acknowledgement, trauma resources, disclaimers, and other contextual information. This splash screen can be easily closed for later retrieval, which reveals the default view of the map itself.

The open starting point of the website—visitors might begin by zooming into a region, searching for a keyword, filtering schools by date, or simply clicking on a random school—creates an immediate point of divergence for each digital inquiry. Further facilitating this pick-up-and-play dynamic is the fact that the interactive map is built on a commonly used architecture, Leaflet, and uses recognizable web icons. Far from being groundbreaking, these characteristics make the FIDS Map intuitive to anyone who is familiar with Google Maps or equivalent services. Leaflet is also notably the programming library that the National Centre for Truth and Reconciliation used to construct its web map of Canada’s Residential Schools.11

Many features are built into the FIDS Map that can be discovered progressively
by the visitor, and which are meant to aid students, researchers, and other users alike. There is an interactive table, closed by default, that is used to quickly sort and scroll through all 699 day schools recognized by the class action settlement. They can be filtered with various toggle switches, text boxes, and drop-down menus on the left-hand menu, either by keyword, province or territory, date, religious affiliation, or custom areas. Doing so will update the markers on the map, the contents of the sortable table, and the overall tally of schools. Visitors can also search for any jurisdiction or civic address in Canada to find the day school nearest to that location.

This functionality can be used to effectively spark unique historical inquiries. Indeed, not only can visitors search for schools based on locations that are personally significant to them, but they can also do so after filtering the data. A visitor could search for their place of birth, considering only Catholic schools or schools which were open in the 1990s—or both. Another interesting way to generate avenues of inquiry is to look at gaps or inconsistencies in the map. For example, we can see that there are no recognized day schools in Newfoundland and only one inside Palliser’s Triangle in the Prairies. The kinds of questions that are facilitated by these functionalities are relevant not only to students, but also to researchers and all kinds of visitors.

Other features built into the FIDS Map do not manipulate the day school data directly, but rather help with visualizing and analyzing this data. Visitors may replace the default map background with two different atlases, from 1883 and 1906. These atlases have been digitized and reprojected onto the WGS 84 coordinate standard in order to line up with the digital map and render them usable within this platform. Viewing the day schools on top of different background tiles helps introduce new historical contexts. For instance, when superimposing the schools onto the 1883 atlas, it becomes immediately apparent that the day schools closely follow the path of...
Canada’s historical railroads. This observation generally holds true even when considering, for example, the 293 day schools that were opened after 1950, seven decades after the atlas was published. We note that the default background which greets the visitor is a physical map devoid of contemporary political boundaries. This was a deliberate choice, because it offers counter-mapping perspectives of Turtle Island by focusing the attention of the visitor on the physical land and nearby water bodies upon which all the schools were operated.\footnote{That said, users also have the option to use a typical road map with current provincial boundaries as a background. As well, two additional vector layers—the locations of Residential Schools and the coverage of land treaties—can be added to the map on top of any background tiles and alongside any set of filters. A visitor could, for example, use these tools to compare communities that had both residential and day schools to those who had one or the other. In fact, visitors could familiarize themselves with subjects that are not exclusively related to day schools, such as the large areas of unceded territory in Quebec and British Columbia. All of these examples serve to illustrate how visitors have the opportunity to stack the data in novel ways and to spark unique lines of inquiry.}

The last major feature of the FIDS Map discussed here is the integration of archival files from the RG10 School Files Series, which was made possible through a partnership with Library and Archives Canada (LAC).\footnote{This feature gradually became a core part of the FIDS Map project, and the LAC website from which the files can also be accessed was itself the subject of a document analysis by the first author.} RG10 is comprised of over 700,000 historical documents on the subject of both residential and day schools. Numerous efforts were made to render the digital files themselves more accessible and to improve the flow of reading. Crucially, the files were assembled into multi-page PDF files from their original state as separate single-page files. This allows visitors to easily scroll through dozens of pages using tools and workflows they are familiar with, rather than necessarily relying on the interface of the LAC website to navigate between pages. The new assembled files were then compressed, optimized, and organized by themes to reduce their sizes—which benefits all users, but is especially important for mobile users and for communities with low bandwidth or unstable access to the Internet. Another key improvement made to the RG10 files was the use of optical character recognition (OCR) to produce text data from the flat images of the documents. This process has enabled imperfect but usable text searches within the historical documents, an action which is currently impossible on LAC’s own platform.

Like the creation of the FIDS Map itself, the ameliorations to the RG10 files came out of a specific need—in this case, for academic research. Work on the documents began as an informal attempt to facilitate the second author’s dissertation research with Curve Lake First Nation. As the extent of the usefulness of these improvements became evident, we shifted our attention to the mass dissemination of the files by collaborating directly with LAC. Work was also put into designing an interface within the FIDS Map that could meaningfully integrate the files into the existing platform. The result is a dynamic, sortable, searchable table of the 3,537 multi-page files we produced, which can optionally be matched to the day schools being filtered
onto the map. Visitors could, for instance, create a custom box around the Ontario Peninsula and limit their search to the ten day schools and fourteen files found for those schools. The pop-up that is shown when a visitor clicks on a pin on the map also now includes a button to show all files related to that school. The implications of this work are not limited to day schools, since RG10 also notably contains hundreds of thousands of files on residential schools. For instance, a visitor could search the thousands of documents for the word *death*, and find the fifty-six files with that keyword in their title.

Care should be taken to consider the information, experiences, and perspectives missing from this federal archive. Notably, RG10 is limited to files from 1953 or earlier, but the FIDS Map reveals that 632 of 699 recognized day schools were operational after that year, including 230 schools that opened their doors for the first time after 1953. Acknowledging the limitations and nuances of using this digital archive as a tool for learning is something which the authors are continually working towards. There is potential for this resource to perpetuate misinformation, but also to support rich and critical historical inquiry.

**Development of the FIDS Map**

The most important creative approach which made the development of the FIDS Map possible was our decision to reach for the low-hanging fruits. In essence, we built the resource by bringing together databases and resources that already existed and organized them around a map-based interface. This was also the case with the Educators in Late Antiquity project, which simply transposed two existing prosopographies onto a digital map. The data we used in the FIDS Map for land treaties, residential schools, and background maps were all freely accessible on the web (although work...
was needed to enable them to function within the map). While substantial effort was needed to give the day schools approximate coordinates, the names of the schools and textual descriptions of their locations had already been compiled as a result of the class action. This means that, from a creative standpoint, the information that is included in the map is not only a reflection of what we wished to include, but also a reflection of the work that was already made available to us on the web. Even the technical architecture of the map itself, Leaflet, is a well-documented and open-source library. As such, while some modifications to this library were made during the development of the website, many of the features of the digital experience reflect again not only our vision, but also the practicality afforded to us by the tools at our disposal.

The most labour-intensive part of our work was the manipulation and optimization of the RG10 files. Most of the processes involved, such as the compression of the file sizes and the OCR, were automated relatively easily. However, one particular and unassuming task accounted for the lion’s share of the work hours put into this project: organizing the files by title, rather than by the microfilm on which they had been captured. We were fortunate that the vast majority of the work needed to digitally disseminate the RG10 files had already been done, no doubt at a great cost: microfilming the original documents in the 1970s, and, much later, digitizing them into electronic images. Still, breaking up the digitized microfilms into smaller, thematically contained files—which was necessary to reduce the files to sizes which could be viewed on the web—was not a process that could be reliably automated. Title cards for sections could not be consistently read by software, and omissions and errors in the documents further muddied the process. Luckily, the metadata for these files (titles, dates, etc.) had been supplied to us by LAC, which facilitated our work. The takeaway from this entire experience was the realization of how much the time needed to complete such a project—and thus its feasibility—can vary based on factors outside of our control. Indeed, had LAC not already digitized the RG10 files, even in their suboptimal state, the effort needed to retrieve and convert them from their microfilms would have necessitated a team and a budget on a much higher order of magnitude than ours. Likewise, we did not know that LAC would supply us with the metadata when we took on the work, but its unexpected arrival greatly improved the reliability of our work and likely resulted in dozens of fewer hours of work. As such, with digital history projects of smaller scale such as the FIDS Map, working backwards from available resources—the low-hanging fruits—is practically a necessity. Moreover, understanding the scale of a project can be an emergent process, as was our case with the RG10 metadata, meaning creators of digital history should be ready to adapt to changing circumstances and to revaluate the viability of their project on a rolling basis.

A significant observation to come out of the development of the FIDS Map is that this process would have greatly benefited from the meaningful engagement with representative users and collection of their feedback during the development process. Notwithstanding the thoughtful discussions that went into the creation of our resource, it is important to acknowledge that it was largely created in an echo chamber, which gives credence to John K. Lee’s statement that most pedagogical digital history
projects are highly idiosyncratic, with little consideration for how people access them. Only after our website had been online for some months did we realize that the AWStats analytics tool was disabled. Through the collection of these anonymous statistics, we quickly realized that a much higher proportion of our visitors than we had anticipated used mobile devices. The ubiquity of mobile devices was not lost on us but, since we principally imagined the resource being used in the classroom and by researchers, developing a mobile-friendly interface had not been an immediate priority. But after we shared our resource to a social media group of thousands of day school survivors, which generated a burst of traffic, it became evident that developing a responsive mobile website should have been a priority. This triggered an immediate response on our part, and within two days, we had deployed a refreshed interface for our website that uses responsive design conventions to accommodate devices of various sizes. However, by the time the update was published, the traffic to our website had slowed back down. While this return to normal is not at all unexpected, it is worthwhile to consider how many visitors we might have retained or how many more times the website might have been shared with new visitors if we had published the mobile-friendly interface before receiving this burst of traffic. Knowing more about our potential visitors throughout the creation process of the FIDS Map, such as through user experience design, could have helped us to easily anticipate this need through feedback and dialogue.

Figure 4. A comparison of the mobile interface of the FIDS Map, before and after implementing responsive design over a two-day period. Courtesy of Benjamin Farmer Lacombe and Jackson Pind.
Future of the FIDS Map

While the FIDS Map is currently functional, different ideas have been put forward as to how the resource might be enhanced. First among these is the creation of pedagogical activities or lessons that can be accessed directly on the website and that make use of its various functionalities. Efforts are underway to introduce new voices onto the platform, notably those of teacher candidates and graduate students who wish to participate in this project. These learning activities could be explicitly or implicitly designed to support rich student-led inquiry. Learning scaffolds and vast archives are two major elements that foster digital historical inquiry, yet the former is notably missing from the FIDS Map.  

Another important feature that we would like to deploy for the FIDS Map is the ability to access the website in several Indigenous languages. The metadata on the day schools which came out of the class action (locations, names, etc.) is fortunately already available in seven languages: Dene, Inuktitut, Mi'kmaq, Ojibway, and Plains Cree, as well as in English and French. The other major dataset on our platform, the RG10 files, contains English-language documents only. While this is unfortunate when considering our goal, it is the reality of the historical context in which these schools operated and in which these documents were produced. As such, putting aside the RG10 files, the bulk of the work needed to make the website available in the five aforementioned Indigenous languages has already been done. This is another opportunity to pick a low-hanging fruit, where all we would need is to translate the website interface itself. We have already taken the first steps towards this through a small grant obtained from the National Centre for Truth and Reconciliation. With the expertise of language speaker Jordan George from Kettle and Stony Point First Nation, we launched a partial implementation of the Anishinaabemowin translation in June 2023.

Figure 5. An ongoing development of an Anishinaabemowin interface for the FIDS Map. Courtesy of Benjamin Farmer Lacombe and Jackson Pind.
Moving forward, we will also be opportunistic about adding more data and layers onto the map as these become available online or as we continue to develop partnerships. There is ample room on the platform to continue adding background maps, vector layers, archival documents, and other types of data that would give visitors more tools with which to conduct their inquiries. In particular, we have begun looking into ways in which the platform could be used to host and share oral histories and knowledge about Indian Day Schools. This would undoubtedly constitute a larger endeavour than simply integrating existing datasets, but it would also address a need that is currently unmet in Canadian digital history.

A similar idea would be to allow user contributions directly onto the website. This would also constitute a marked departure from the opportunistic approach that has fuelled the creation of the FIDS Map up to this point. Allowing user content onto the website—such as comments, videos, or new archival documents—might be an even larger endeavour than collecting oral histories, since it would likely require constant active management of the platform. Still, there are some significant benefits to allowing discussions to take place directly on digital history projects. As digital historians Molebash, Lee, and Friedman note, “the use of Web 2.0 authoring tools can remove many of the technical burdens that have historically prevented amateur historians from contributing to the body of historical knowledge.”

The last major consideration for the future of the FIDS Map is the need to collect formal data to develop a proper understanding of our users, both current and future. This is the last observation recorded in this article, but it is also the most pressing for the future of the project and should be undertaken ahead of other goals. Doing so will ensure that the FIDS Map is useful, robust, and enjoyable in its current form before piling on more features. It will also help us devise other avenues and priorities for the future of the project, which will not necessarily have come to the surface in the closed environment in which it was developed. Both Saye and Brush and Molebash, Lee, and Friedman detail the importance of such input towards their respective digital history projects, especially coming from students.

Conclusion

We believe the launch, maintenance, and growth of the FIDS Map represents an important piece of a larger discussion on the history of federal Indian Day Schools in Canada. The website and all of its content are made completely open access, with the aim of disseminating this information as widely as possible. Beyond making the platform nominally open access, we also prioritized ease of use and responsive design to maximize its accessibility in practice. With the website receiving a steady stream of visitors—including about 32 per cent from the United States—each day more people are learning about the history of Indian Day Schools. As the discourse continues to grow, we hope to expand the FIDS Map alongside it.

The limited statistics we are gathering on the website allow us to construct an understanding of how it is being used. From its launch in May 2022 to December of that year, the website received over 10,443 visitors. Most visitors came to the website...
through a search engine or from a bookmark or direct link, but a sizeable portion came from Facebook and various news sites. We take this to mean that the FIDS Map is in fact being shared in different communities and circles. We also know that several ongoing Indigenous community-led research projects are utilizing the map and files to support historical investigations into specific Indian Day Schools. In the above timespan, different files within our optimized RG10 set were downloaded a total of 4,640 times. We also know that these inquiries are not exclusively about day schools. The most downloaded document is currently File 758-12, Part 1, on the topic of the Old Sun’s Residential School in the Blackfoot Reserve in Alberta, from 1923 to 1931. We hope more scholars and educators will continue to use and share the map to better understand the impacts of colonization on Indigenous peoples, and to spark conversations on the matter.

These numbers should be understood to be estimates and thus taken with a grain of salt. The prevalence of robots and spiders on the web can skew the traffic statistics. While we know that the RG10 files have received tens of thousands of hits, these are mostly the results of Google, Bing, and other search engines crawling the website in order to index it. This is largely a good problem to have, since an increase in bot traffic results in higher visibility on search engines. This is important not only to our own website, but also in creating awareness of the massive contents of RG10, which were previously invisible to search engines.

The purpose of this article was to present our experience with the technical development of the FIDS Map, as well as our motivations for its creation. Relying on the above statistics and on our own anecdotal evidence gives us insights into the ways in which the resource can be used. Notably, one of the authors consulted and received permission from Curve Lake First Nation to research the files stored on the map to help write his dissertation and, in turn, shared this information with community members on the National Day for Truth and Reconciliation in 2022. The FIDS Map was thus designed from the ground up to support academic research as well as classroom learning on the topic of day schools. Still, the reality is that there is much about our visitors that we do not know. The implications which this project and others like it have for decolonization, reconciliation, and education in Canada remain to be seen. From where we stand now, our most important questions are about people today and tomorrow. Who will use this resource? And how will they use it? Exploring this will help us steer the FIDS Map in a direction that is relevant and impactful to as many people as possible. We hope to achieve this by systematically engaging with representative users, by reaching out to potential collaborators and partners in various communities, and by continuing to keep our eyes open for creative ways to grow the project.
Notes


4. Pauls, “Just Get It Done.”


9. The following sections of this article were originally part of the first author’s master’s thesis, who would like to thank Theodore Christou for his valued support as supervisor for this work and for the FIDS map.


17. Farmer Lacombe, “Supporting Historical Inquiry by Design.”

