

# How do you solve a problem with users finding what they're looking for in the digital space?

By: Joseph Jeffrey

A brief history lesson.

Once, a long time ago, Rodgers and Hammerstein asked us “How do you solve a problem like Maria?” Unfortunately, the version I am presenting to you is far less catchy: ‘How do you solve a problem with users finding what they're looking for in the digital space?’

User experience is as important in the virtual space as it is in the physical. During her tenure as the Vice-Principal of the District Learning Commons in BC's School District 57 - Prince George, Monica Berra did a phenomenal job implementing the work of Koechlin, Rosenfeld and Loertscher (2010) to transform our physical space from a resource centre focused on holdings to a participatory professional development space for cultivating ideas, using resources and transforming thinking.

Our journey as a district towards a learning commons model involved substantial physical change, especially in our District Resource Centre (DRC). Beginning in 2011, the DRC began to evolve. Many of our holdings were single items that were being booked in groups by enterprising teachers. We decided to begin to bring those items together transforming us from hundreds of thousands of single items to tens of thousands of kits each containing a multitude of different items hitting at multi-modal forms of learning. Books, puppets, realia, games, all of these would go into a single kit for kindergarten imagination, learning about salmon or many other areas of study. This changed the resource use. It also required new shelving and new layouts. Weeding was done to ensure we only kept the most up to date of material.

In 2014 as the Canadian Library Association and, Daly, Ekdahl and Zubke (2017), took the original learning commons model and formalized it with implementation standards, so too did the District Learning Commons (DLC) continue to evolve. By this point we had cleared a large section of shelving to make way for a community learning hub. Constantly in use for professional development from across the district as well as meetings of different departments, and even community events from the attached school occurred. The space could be reconfigured quickly with rolling tables and chairs. Most of the elementary schools and high schools were also following a learning commons model. Transformation of the physical was well under way.

# E-Resources

Fig 1. The infamous big orange button. It still persists to this day.

We turn now though to the digital. We had a virtual learning commons, and it was important, and well utilized. Our digital space was a central hub for e-resources, as well as our ILS. The classic refrain of “the big orange button”, the link to our e-resources, was on the lips of every teacher-librarian and principal. This was a solid foundation for transformation.

When I took over in 2020, the pandemic was in full swing. Our physical space was sound, but not being used due to curtailments on gathering. We had thousands of beautiful kits filled with learning materials that weren’t able to move because there was uncertainty over whether COVID-19 transmitted on surfaces. The virtual space was suddenly a much more important part. All that groundwork that had been done paid off, yet it wasn’t set up for so much of our work to move online.

How do you solve a problem...?

In 2016, the excellent Kobi Yamada asked, “What do you do with a problem?” a salient question for us as we began to try and find our way in a world of upheaval. We began with seeking to understand where we needed to grow. For us that meant turning to our standards of practice (Canadian School Libraries, 2020) and listening to the teachers, principals and teacher-librarians that we serve.



Fig 2. Standards of Practice for School Library Learning Commons in Canada (Canadian School Libraries, 2020)

As the world shifted online temporary access from vendors allowed us to see e-resources that we had never had before. When that time was up it helped us see that one of our

biggest gaps in our e-resources were Canadian focused videos and quality, modern Indigenous content. The pandemic did not lessen our commitment to Truth and Reconciliation. In order to advance the learning community to achieve our district goals around this we needed to fix this disparity. So we added Can-Core from McIntyre Media to our e-resource roster, replacing Learn360. Can-Core (On-Core in Ontario) was one of the e-resources we had access to during the pandemic and is the home for much of APTN's content. McIntyre's been a leader in Canadian content for years and as many of our new school computers and laptops do not have DVD drives, our collections of their content has been harder to access. Can-Core solved this for us. Yet it created another problem. Can-Core was now our third streaming service along with Radio-Canada's Curio and Criterion-on-Demand. Searching for content was now more clicks, more tabs.

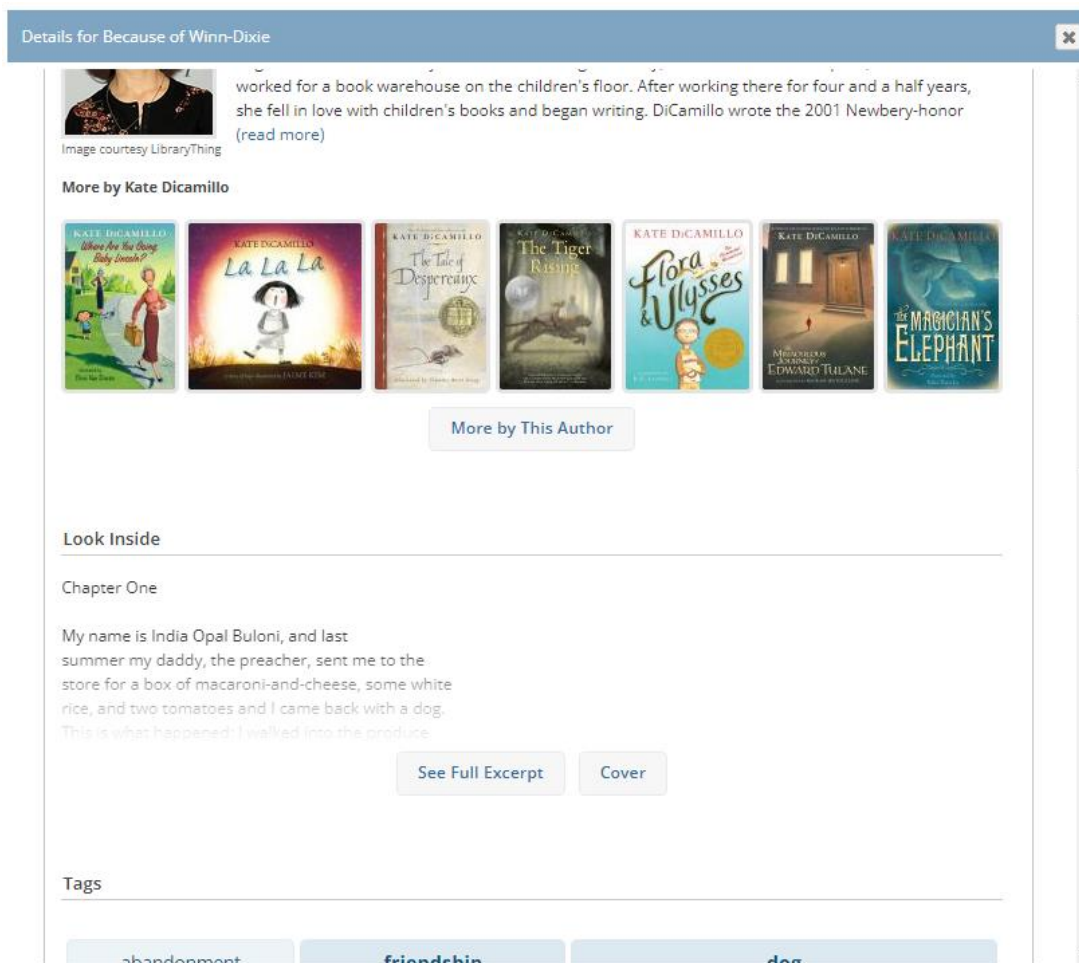
Our solution to this was to examine how people search. Most of our web traffic was going through our bookings catalog. People knew how to get there and what to do. We had a few options. We could teach them new tricks and show them how to use all these new search engines, but people were burnt out from the pandemic. Now was not the time to show them 'something new'. Instead, we found a way to integrate our streaming services into our web catalog. Now from the search engine they were familiar with, they could find digital and physical resources.



Fig 3. Media-integrated search. SV is a streaming video, DV is a DVD, LK is a large kit and BK is a book. Previously only physical items like DV, LK and BK appeared.

Another issue the pandemic brought about was an exacerbation of an existing one. Northern BC has had a problem with lack of teachers teaching on call (TTOCs) for years. Now with people not being able to work unless they could pass their health check and illnesses lasting longer, along with stress leaves and all the usual leaves, meant few TTOCs. That meant non-enrolling teachers like teacher-librarians being pulled. Digital programs will never be able to replace skilled professionals, but there was a need to have some way to

deal with reader's advisory in the absence of our teacher-librarians. Again, we looked at user experience. What was it we wanted to achieve? We wanted users to be able to find information about books that they could usually ask the teacher-librarian about. We wanted to replicate the experience students and staff were used to searching online retailers like [Bookmanager](#) or that giant-web-store-that-shall-not-be-named. Using a feature of our ILS we had never implemented called [Syndetics Unbound](#), we were able to add those meta-data based features into our online catalog such as other books by the author, others in the series, reviews and even some 'if you like this...' action. At the same time, we also turned on FRBR-ish grouping, which presents all editions of a title as one title. This helps cut down on duplicate entries and also shows if an item has video or audio versions.



*Fig 4. Syndetics Unbound additional title information - Author Profile, More by this Author, Look Inside, Tags. Not pictured - Awards, Professional reviews, if you like this ty...*

What happens if we go back into lockdown? The worry was real. Our high school teacher-librarians rely on physical displays to push books as face-to-face time to do book talks is much more limited compared to their elementary peers. Was there a way to do digital book displays? Once again Syndetics Unbound turned out to be our key. The widget feature allowed us to create dynamic displays of books connected to our catalog. While these features had been

around for a while, had the pandemic not forced our hand, they would likely have sat unused for even longer.



*Fig 5. 3D carousel Widget in Syndetics Unbound*

Our next innovation was based on work out of Richmond School District in BC. At the annual IT4K12 conference that brings together teacher-librarians, principals and IT professionals we saw a fascinating presentation helping teachers move from whole class novels to literature circles. Building on what we had learned about [Medianet's](#) capabilities over the last several months we decided to work on our own project with a similar outcome. While the Richmond selections were PDFs, was there any way to build the booking system straight in? Turns out the answer was yes. We put a team together of classroom teachers and teacher-librarians to select books based on themes and following the Equity Informed Selection of the Collection Diversity Toolkit (Brooks Kirkland et al, 2021). Just like the Richmond selections, the focus was on a diverse selection of picture books and novels to provide not just a path from novel to literature circle, but also from classics whose protagonists often tended towards white and male to books that a multitude of students could see themselves in. During her keynote address to Ontario Library Association (OLA) in 2022, Cherie Dimaline compared libraries to a neighborhood, and a good library should have a home for everyone. That was the goal of this project.

Utilizing my love of a podcast called 'Off-Menu' I decided to flavour our site like a menu letting teachers pick their appetizers (picture books), main course (literature circles) and side-dish (whole class read aloud). For each choice there was between five and fifteen options to choose from, all of which would be ordered for the same date and come in a single shipment. While this may not sound impressive, being able to order multiple things from a single screen efficiently was new to the way we had been getting teachers to order. This project also aligned with many of the standards in Fig 2.

## Middle Grade Lit Circle Menus (Gr 5-9): Survival and Adventure


[Home](#)
[Survival and Adventure](#)
[Perseverance and Adversity](#)
[Immigration, Refugees and Citizenship](#)
[Series Starters](#)

*Appetizers - Try Introducing the Lit Circle with one or more of these picture books:*

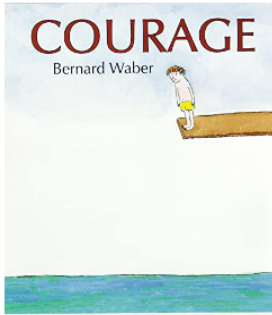
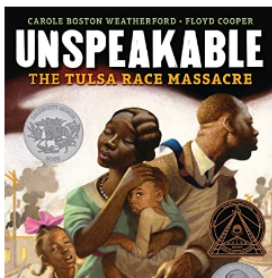
<p><b>Courage</b> By Bernard Waber</p> <p>Illustrated by author</p> <p>Published: 2002</p> <p>Add to my <a href="#">appetizer</a>: <input type="checkbox"/></p>		<p>What is courage? Certainly it takes courage for a firefighter to rescue someone trapped in a burning building, but there are many other kinds of courage too. Everyday kinds that normal, ordinary people exhibit all the time, like "being the first to make up after an argument," or "going to bed without a nightlight." Bernard Waber explores the many varied kinds of courage and celebrates the moments, big and small, that bring out the hero in each of us.</p>
<p><b>Unspeakable: The Tulsa Race Massacre</b> By Carole Boston Weatherford</p> <p>Illustrated by Floyd Cooper</p> <p>Published: 2021</p> <p>Add to my <a href="#">appetizer</a>: <input type="checkbox"/></p>		<p><b>Unspeakable</b> takes a powerful look at the Tulsa Race Massacre, one of the worst incidents of racial violence in our nation's history. The book traces the history of African Americans in Tulsa's Greenwood district and chronicles the devastation that occurred in 1921 when a white mob attacked the Black community.</p> <p>News of what happened was largely suppressed, and no official investigation occurred for seventy-five years. This picture book sensitively introduces young readers to this tragedy and concludes with a call for a better future.</p>

Fig 6. Middle Grade Lit Circle Menus - built in ordering with the book lists.

Finally, we looked at the site itself. While by no means bad, the site was not designed in a consistent manner. Further many links had been added, but not pruned (Fig 6). The result was a lot of clutter on the main page and inconsistency between pages. Within this step our first task took us to Schmidt and Etches (2014) and the examination of the consistency of our colour palette (p. 75), font selection (p. 73) and immediacy of access for critical tasks (p. 95). Using a central cascading style sheet (CSS) rather than applying fonts on an individual basis transformed the look allowing that consistent edge (Fig 7). We kept only the most necessary links on the front page, opting to have a rotating section on the right-hand side that would change based on what we were promoting, and a static left-hand side. We trialed removing different sections from view and saw quick responses for some disappearing and crickets for others. This gave us an immediate sense of what was being used and what was not as we lacked analytics to know what parts of the site were being clicked on.

### Ch-ch-ch-changes

With all these changes, what difference was it making to traffic on the site and what were we hearing from our users? Unfortunately, we do not have comprehensive analytics that can detail every aspect of all of these changes. However, within Medianet our traffic went up significantly.



Fig 7. Virtual Learning Commons circa 2016. While the front page looks clutter it does have a mostly consistent look. Subpages did not all follow this look however.

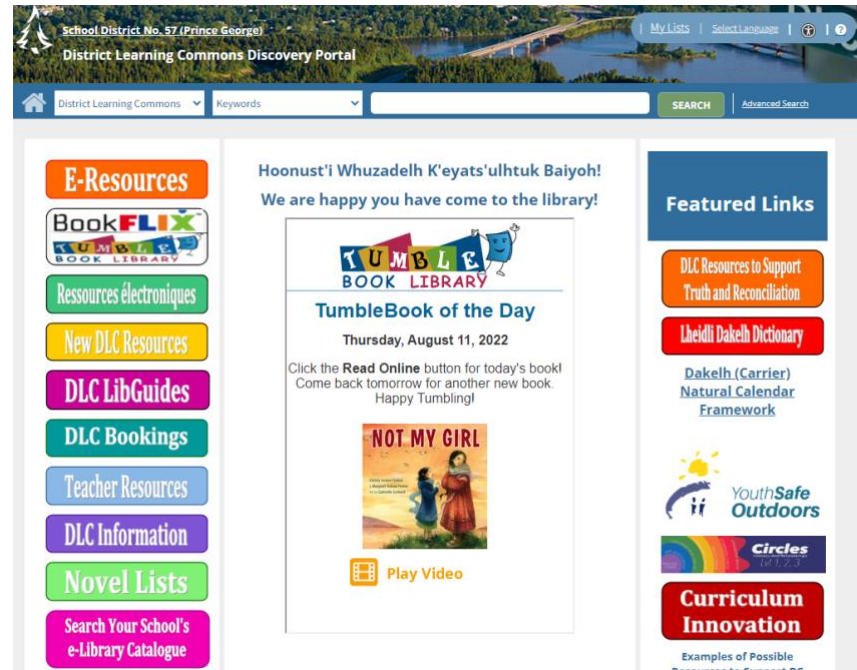


Fig 8. Virtual Learning Commons circa 2022

Analytics from our e-resources showed more people using them than we had been seeing previously, and most of the access was now coming through Medianet. While we released videos showing this change, we were unable to run a proper professional development due to the timing within the school year. We hope to see further increases once we can do professional development around this for staff.

During the short time the literature circle menus have been available they have shown consistent use, being booked solidly from their release in May to the end of June. Is this just due to novelty or will it be sustained? Another question that we have on our minds as we enter this new school year.

Anecdotal evidence from our user base is that the new features are helpful and drawing them to our virtual learning commons platform. Our teacher-librarians like the emergence of widgets they can deploy to their own sites allowing them to integrate searches and books into their sites without the need for complex code of their own and that they are compatible with the major platforms they are using: [Wix](#), [Weebly](#) and [LibGuides](#).

Overall, it is too early to tell how these changes have improved our circulation of materials, traffic to our site and quality of the experience. What is important to note, however, is that this is not the end of the line. Much like the physical learning commons, the digital one must keep evolving to provide the best experience for our users. The next big step is to utilize our foray into Microsoft 365 as a district to provide a platform for user participation. One aspect we have not explored in a meaningful, district wide way, is designing online participatory learning spaces as an extension of our virtual learning commons. What this looks like is largely unknown, but as all staff and students have accounts and the opportunity arises, we need to look into what it can do, along with our MS365 Training Teacher. SD57's DLC must lead by example and demonstrate what can be done with teacher-librarians as we have with all the changes to our physical space. It is in this area that we have thrived and grown, the pandemic providing challenges to bringing people together, but giving us new avenues to explore. We have to continue to push down them and find ways to grow.

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