Digital Human Library: Reimagining Library Collections in the 21st Century

The Digital Human Library *(dHL)* is a new kind of library that addresses the need for connections-based learning through the curation of volunteer human resources *(experts)* that are catalogued and available for loan virtually to teachers, students, and librarians. With a special focus on connecting students who attend school in rural and remote areas of Canada, our connections-based learning approach to teaching and learning focuses on building relationships and partnerships between students, teachers, families, libraries, experts, and organizations. By leveraging digital technologies, students learn to question, connect, collaborate and cultivate partnerships that will empower them to be leaders in their own learning and become digitally literate contributing global citizens.

Students learning in rural Canada do not have access to the same kinds of educational experiences as students who attend schools in urban centres. Research shows that geographic location, school conditions—including the lack of specialist teachers, programs, and use of ICT—as well as economic conditions, like the well-documented tendency for rural students to have lower educational aspirations, are all factors that contribute to rural-urban gap in education.
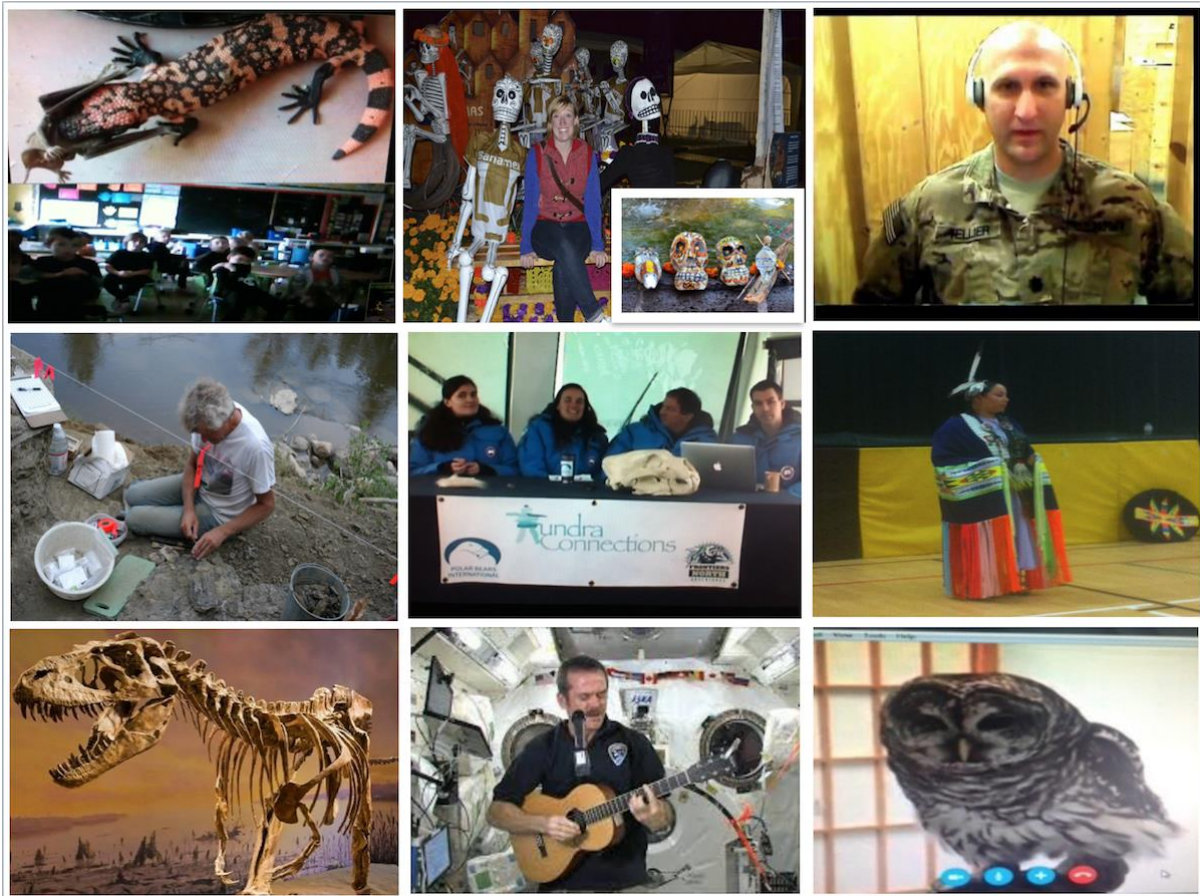
As of 2011, 19% of Canadians live in rural areas: 1,092,386 are children (0-14yrs), and 348, 890 are Aboriginal children[1]. In the 2003 Programme for International Student Assessment (PISA), urban students outperformed rural students in math, reading and science. Research also indicates that rural high-school dropout rates are twice as high as the urban dropout rate (9.2%).[2] These adverse educational outcomes limit the range of employment options available to rural youth, thus affecting their success now, and in the future.

With 19% of Canada's population living in rural areas, there is an urgent need for resources and training to support students attending school in rural settings. Connections-based learning addresses many of the inequities rural students face by leveraging our connected world to cultivate meaningful relationships with others, as we partner locally and globally, learn with experts, support organizations, and serve our communities.[3] If an anticipated 10,000+ teachers register with the dHL in 2017-2018, and connect their classes with 25+ students to even 3 experts/ year, we would reach close to one million students in 2017-2018. Over a student's 14 year academic career, the dHL has the potential to connect individual learners with 40+ experts, introducing students to new people, places, experiences, and future career paths, thus improving their success now, and in the future.

[1] Population, urban and rural, by province and territory (Canada). (n.d.). Retrieved November 21, 2016, from http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo62a-eng.htm

[2] High school drop-out rate. (2015, November 30). Retrieved November 22, 2016, from http://www.statcan.gc.ca/pub/71-222-x/2008001/sectionf/f-dropout-abandon-eng.htm

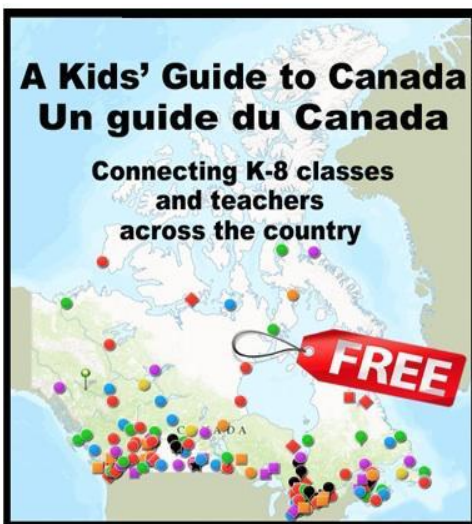[3] Robinson, S., & Cassell, L. (n.d.). Digital Human Library: Connections-based Learning. Retrieved November 21, 2016, from https://www.digitalhumanlibrary.org/connections-based-learning/

Leigh Cassell, Digital Human Library

The Digital Human Library not only connects learners to experts, but provides opportunities for students to create unique Canadian content using a variety of digital tools and resources through Social Innovation projects like A Kids' Guide to Canada, and Walk With Us.
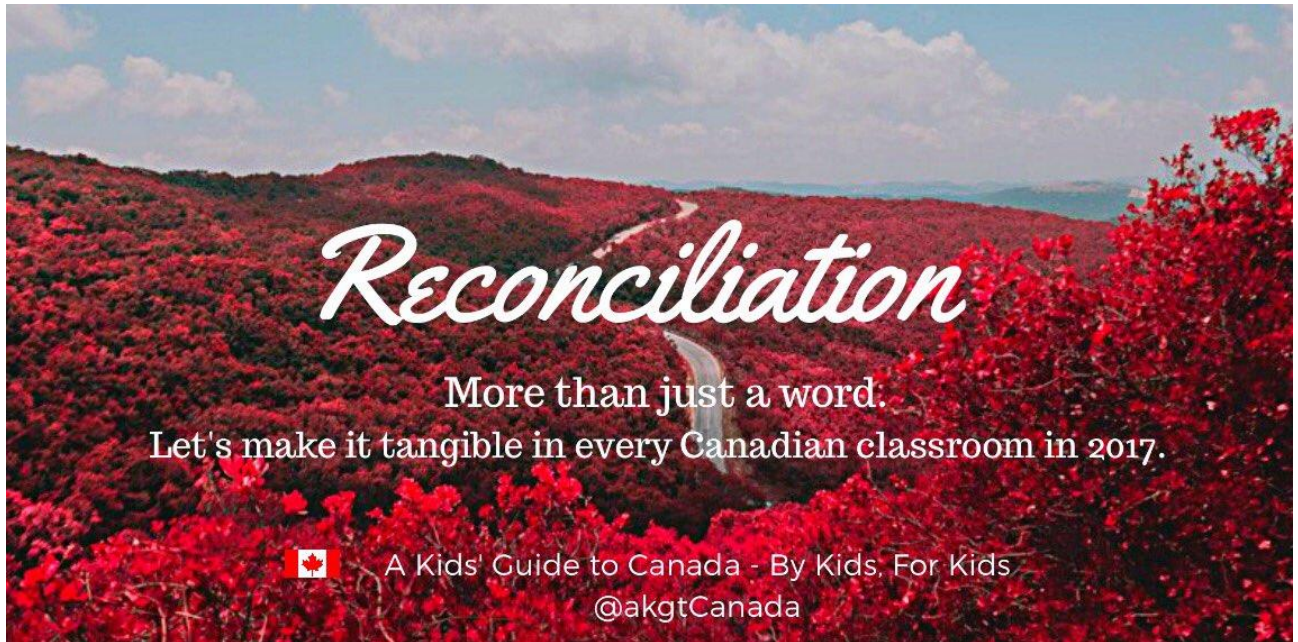
A Kids' Guide to Canada

With over 3000 teachers currently registered as dHL members, and an anticipated 10000+ more Canadian teachers registering for our newest initiative, A Kids' Guide to Canada, the dHL is making great strides to support and encourage students to be creators of content. A Kids' Guide to Canada project is a national teacher-led initiative which has been organized by elementary teachers across Canada to provide rich and meaningful educational activities for K-8 students marking Canada150th+. All K-8 students are invited to help create Canada's first ever multi-lingual, multi-cultural interactive guide to Canada made by kids and for kids, and in the process help to build a new era of "understanding, empathy, respect". *(Truth and Reconciliation Commission, Call to Action 63.3)*

The project takes place in 3 parts, with students first learning about cross-cultural communication, digital safety and citizenship. The second part of the project focuses on students creating a vast array of artefacts that will be shared on an interactive map hosted by ESRI to create Canada's first ever multilingual guide to Canada created by kids, for kids. The third part of the project focuses on teachers and students making cross Canada connections through the Digital Human Library. Classes are supported as they #Learn2Connect and

#Connect2Learn with other classes across Canada to pursue deeper conversations and collaborative learning activities together.[4]

One of the challenges we face is connecting with learners living in First Nation, Metis, and Inuit *(FNMI)* communities. A Kids' Guide to Canada and Walk With Us projects are the beginning of our ongoing efforts to engage FNMI students in connections-based learning, while at the same time establishing and maintaining respectful relationships outlined by the Truth and Reconciliation Commission (2015) as a vital step in the direction toward reconciliation.[5]

Walk With Us

Our Walk With Us *(WWU)* project is new initiative, affirming the voices of Indigenous learners who are producing virtual tours of their communities (James Bay / Treaty 9 territory to start); and creating content digitally archived to educate future generations[6]. WWU uses a technology-supported online learning environment comprised of a free virtual tour building software called WalkInto and Google Street View. Led by Digital Human Library Vice President Melissa Lavoie, students are trained to use 360' cameras, connected to their smartphones, to control image captures via the GSV app. WWU is, quite literally, putting 18,592[7] Indigenous peoples' communities on the map by capturing Street View images to

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[4] Beach, C., & Cassell, L. (n.d.). A Kids' Guide to Canada - By Kids, For Kids ~~ Un guide du Canada - par des enfants, pour des enfants. Retrieved November 21, 2016, from https://akgtcanada.com/

[5] *Honouring the Truth, Reconciling for the Future: Summary of the Final Report of the Truth and Reconciliation Commission of Canada* [PDF]. (2015, July 23). Ottawa: Library and Archives Canada Cataloguing in Publication.
http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls_to_Action_English2.pdf

[6] Lavoie, M. (n.d.). Walk With Us Project. Retrieved November 22, 2016, from https://sites.google.com/necdsb.education/walkwithusproject

[7] Welcome to the First Nation Profiles Interactive Map. (n.d.). Retrieved November 23, 2016, from http://cippn-fnpim.aandc.gc.ca/index-eng.html

share stories of their people, and contribute to a new culture of mutual understanding, empathy, and respect *("TRC Call to Action," 2015)*.[8] Scaling this online learning environment will soon include more Indigenous communities across Canada, and develop a classroom resource for accessible implementation.

Despite being one of the most wired countries in the world, there is an urban/rural divide in terms of connectivity: "77 percent of large population centres in Canada have access to download speeds of over 100 Mbps, while only 18 percent of rural areas can expect the same service."[9] Connectivity issues in rural areas continue to be a factor limiting the kinds of connections-based learning experiences offered via digital technologies. However, the Government of Canada's Digital 150 plan "recognizes this challenge – including a $305 million investment to bring high-speed, 5 megabits per second to 280,000 households in rural and remote areas."[10]

As the Government of Canada's Digital 150 plan moves forward, so does the need to connect our learners with others as we move away from simply learning about the world, to learning from the people living within it. The Digital Human Library's curated collection of experts, including our external collection of Additional Networks of Content Providers, Global Connections for Teachers and Students, and our thousands of educational multimedia Virtual Tours makes the Digital Human Library the largest, and only comprehensive National Canadian Education Network for teachers, students, and librarians. What differentiates the Digital Human Library from other niche networks of content providers *(experts)* is that we proudly host our network on a secure Canadian server, and our members have free open access to our curated library of experts in all curriculum subject areas with no set schedules, and no fees. Registered teachers and librarians simply search our collections, collaborate with chosen members to determine the content, date, time, and video conferencing platform *(Google Hangouts, Skype, Zoom, Adobe Connect…)* and connect. As the Digital Human Library continues to grow, we will continue to outsource key partnerships with organizations that support and further our mission and diversify our wealth of resources to better serve our members.

What's Next?

One of our ongoing goals is to continue connecting hundreds of thousands of students with experts and other students across Canada and around the world to collaborate on projects with the goal of educating students on the process and benefits of curating their own unique professional learning networks and creating unique Canadian content.

Select libraries belonging to the Alberta Library Consortium are piloting the addition of the Digital Human Library on their Public Library websites as a resource for educational

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[8] *Honouring the Truth, Reconciling for the Future: Summary of the Final Report of the Truth and Reconciliation Commission of Canada* [PDF]. (2015, July 23). Ottawa: Library and Archives Canada Cataloguing in Publication.

[9] The Canadian Internet. (n.d.). Retrieved November 21, 2016, from https://cira.ca/factbook/2015/the-canadian-internet.html

[10] The Canadian Internet. (n.d.). Retrieved November 21, 2016, from https://cira.ca/factbook/2015/the-canadian-internet.html

programs in their Learning Commons[11], and to help attract new experts to the Library. Moving forward, we intend to scale this model in Alberta, and then introduce this model in Ontario through a series of strategic partnerships.

Furthermore, we hope to continue engaging more Teacher Librarians to join our provincial team as partners who are empowered to curate their own unique regional collections of experts to support student learning in their districts, throughout Ontario and potentially across Canada.

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[11] Moses, A. (2016, January 13). Spencer Avenue Elementary School, UGDSB - Digital Human Library. Retrieved November 21, 2016, from https://www.digitalhumanlibrary.org/spencer-avenue-elementary-school-ugdsb/

Further Resources Bibliography

Digital Human Library

Website: https://www.digitalhumanlibrary.org
Twitter: @dHL_edu
Facebook: https://www.facebook.com/digitalhumanlibrary
Email: admin@digitalhumanlibrary.org

A Kids' Guide to Canada

Website: akgtcanada.com
Twitter: @akgtcanada
Facebook: https://www.facebook.com/akidsguidetocanada
Email: akgtcanada@gmail.com

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Government of Canada. "Welcome to the First Nation Profiles Interactive Map." *First Nations,* 2012, http://cippn-fnpim.aandc.gc.ca/index-eng.html