kcj

Annual Report
2018–2019

A Letter From Kate

Not a day goes by where I don't think about kids' education. Are we doing enough to help accelerate education in our current systems to make sure kids have the skills and tools they need in the environments of today and tomorrow?

By the end of 2018, Kids Code Jeunesse was in thousands of classrooms and community centres across Canada, bringing computational thinking and coding into kids' education. Thanks to partners throughout Canada, our passionate and talented team, and funding from the federal government's CanCode program and committed sponsors, we have impacted the education of over 200,000 kids and 8,000 teachers.

Being in the classroom, learning with kids, is one of my absolute favourite things to do. Last May, I was in a classroom where the teacher and students were using Siri. I thought to myself, "I wonder if these kids have any idea how Siri works, how the technology is controlling their communication and using their data."

Over the next few months, I watched kids using their smartphones on the bus to navigate their way around, at home to do their homework, with friends to shop online, and I knew we had to do something. This is the first generation ever to be born into a world controlled by artificial intelligence.

In April 2019, after much research and planning, we launched #kids2030, an initiative that brings AI, ethics and the United Nations' (UN) Global Goals for Sustainable Development into kids' education. Our goal is to reach 1,000,000 kids and 50,000 teachers by 2030.

The response to #kids2030 has been overwhelming. We have presented at the G7 conference in Montréal, at UNESCO's Mobile Learning Week in Paris, at the UN's AI for Good Summit in Geneva, among many other opportunities, in order to share this message:

It is our collective responsibility, as parents, as communities, as countries, to make sure kids have an understanding of how to communicate and create in the world around them. Today's kids will be adults in 2030. They will have important decisions to make on issues such as climate change and poverty. They will need to consider the ethical implications in building and using technology to solve these issues.

As we enter our 6th year at Kids Code Jeunesse, impacting the education of 100,000's of kids a year, I ask you to join me in sharing our message. We need to make sure equitable and inclusive education around algorithm literacy and digital citizenship is available to all kids. Today.

Kate Arthur, CEO

1

CanCode:
A national growth

"As we imagine our future goals and challenges we have every reason to believe that Canada can be a world leader in nurturing our most precious resource, our curious, bright and creative children."

–Kate, CEO

Launched by the federal Ministry of Innovation, Science and Economic Development in 2017, the CanCode program provides educational opportunities for coding and digital skills development to Canadian youth and educators, to ensure that all students come out of school with the skills they need to succeed in today's workforce. A mission that goes hand in hand with ours!

Through CanCode, KCJ was granted $6 million from 2017 to 2019, giving us the opportunity to grow our team, expand our services, and most importantly, inspire more students and teachers than ever before. CanCode allowed us to develop and cultivate three hugely successful national programs: Code Create Teach, Code in the Classroom, and Code Club.

Code|
Create
Teach

In partnership with coding bootcamp Lighthouse Labs, we launched Code Create Teach (CCT) to introduce computational thinking and coding to Canadian educators through full-day training sessions. CCT put tools into the hands of educators and gave them the confidence they needed to transfer those skills to their students.

Our objective? To invest in Canadian educators, inspire them to bring innovation into the classroom, and support them in sustaining the development of digital literacy among Canadian youth. No small feat.

From April 2018 to March 2019, our lead instructors set out on a cross-country adventure of planes, trains… and digital skills! In the end, we delivered 33 workshops, reaching approximately 1,500 educators across every province and territory in English and French.

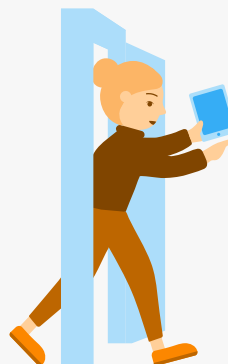## Educator feedback following our CCT sessions:
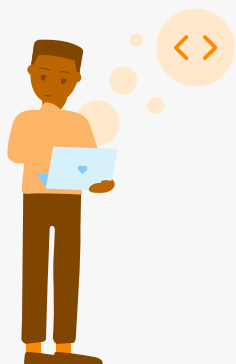
89%
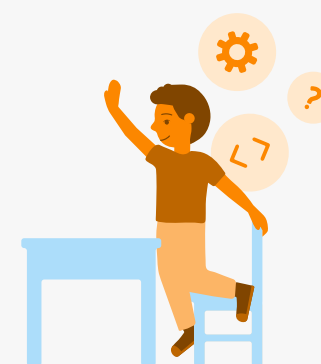say the activities are pertinent to the needs of classrooms and teachers

87%
say that they would integrate coding into their classroom projects

92%
see coding as an opportunity to try new ways of teaching/learning

91%
believed that coding will help to motivate and enrich student learning

" **"**

[KCJ gives] a great introduction to technology education. My students were engaged and excited to share their learning. There were many curriculum connections throughout the workshop. Thank you for working with us!

– Teacher, Alberta

" **"**

Thank you for providing the resources to support ongoing exploration in the classroom. Having access to the tools leads to more frequent use and the discovery of new things to do with them.

– Teacher, Ontario

Code in the Classroom

While training educators to teach code in the classroom has proven to be a great success, working directly with kids in classrooms is what we do best.

That's why in the Fall of 2018, we launched Code in the Classroom, an initiative to run 2-hour hands-on workshops in classrooms across the country. We decided to focus these workshops on the micro:bit, a tiny computer that promotes creative learning across all subjects, explores the rich potential of physical computing, and is a big hit with young girls.

From an ambitious idea to a hugely successful national campaign, we ran over 2,200 workshops, reaching over 50,000 students and their teachers in just 6 months.

Thanks to CanCode, we were even able to give each teacher a set of 10 micro:bits for continued learning and experimentation.

What does a typical Code in the Classroom workshop look like?

After a short unplugged activity away from the computer to warm up their computational thinking skills, the students are ready to start coding with the micro:bit.

It doesn't take long, maybe ten minutes, before these students can code their name to appear in lights across the micro:bit's small LED screen. "Woah!", "Cool!," and other expressions of joy inevitably erupt from all corners of the classroom.

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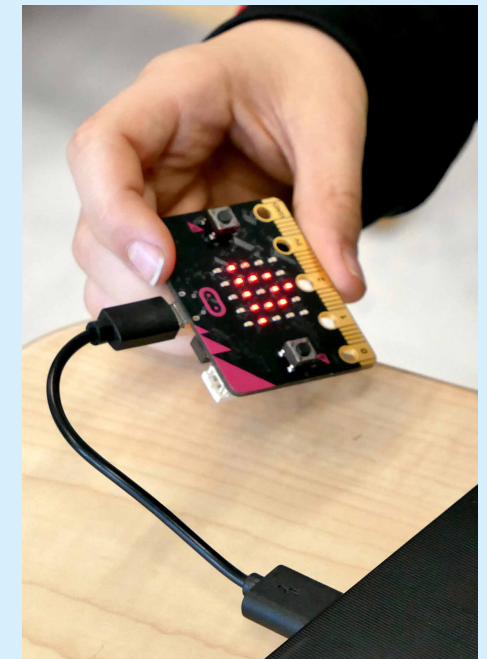
I have learned much more from the kids and my confidence to help the students is much higher. The kids have a sense of engagement when coding and I love the piece that kids who don't feel they have other connections with kids now have this coding connection.
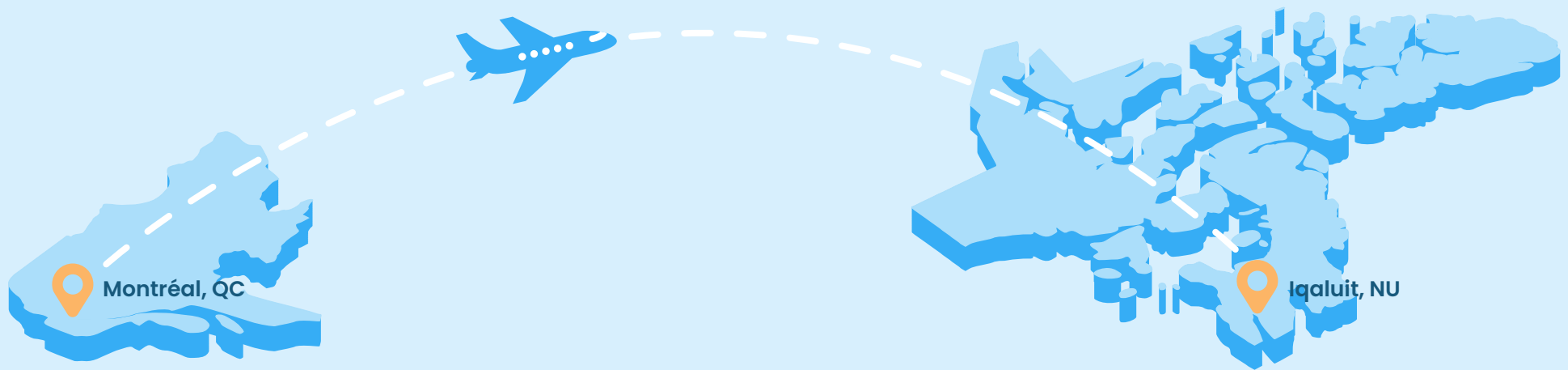
- Teacher, Alberta

" "

All students have enjoyed coding! It is highly inclusive because you do not have to be the best in literacy/math in order to be a successful coder. They have also learned grit – it takes many tries to succeed. All have felt a great deal of pride in being able to code.

- Teacher, New Brunswick

Montréal, QC

Iqaluit, NU

A Heart-Warming Trip to the Cold Canadian North

Nunavut is the newest and largest territory in Canada. Its capital city, Iqaluit, has a population of less than 8,000. In February, when the weather was a punishing -48 degrees celsius, we made the trip to lead a Code Create Teach session and to drop in to a local makerspace, Pinnguaq, to teach a group of curious kids how to code using the micro:bit.

Broadband is poor at even the most expensive hotel, so it's easy to understand the challenges of teaching kids to code without depending on the internet. Thanks to Art:bit, the app KCJ launched last year that connects to the micro:bit and requires no internet connection, the bright minds of Iqaluit were able to code and create within minutes. The best part? We left them with 120 micro:bits so they could continue experimenting!
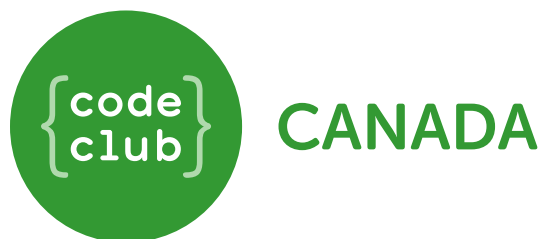
{code club} CANADA

Developing a kid's technological ability, confidence, and creativity in the long-term takes a village, which is why one of our most rewarding programs has been Code Club Canada. Talk about community effort!

We give communities the tools, resources, and support to inspire kids aged 8 to 12 with the infinite possibilities of code.

Code Club's educational materials are available in 28 languages, making them accessible to new Canadians and kids from all communities.

We also support a nationwide network of volunteers who run clubs in public spaces, like schools and libraries.

Thanks to the CanCode grant and sponsors such as Microsoft, NSERC, Ubisoft, and the Ministry of Economy and Innovation in Québec, we have seen a huge rise in clubs across the country. In the last year alone, we grew our program by over 500% with around 40 new registrations per month, showing the fastest growth of any international partner country.

Unprecedented growth of registered clubs:

737

JUL. 1, 2019

304

JUL. 1, 2018

There are now clubs taking place weekly in every province and territory in Canada.

A club leader from Ontario said that code worked in inspirational ways for some of their students:

"   "

One child has learned great resilience through coding. His emotional growth has been exponential, as coding is something he enjoys enough to try repeatedly. He has transferred his feelings of success from perseverance to other areas of his life, and has really grown.
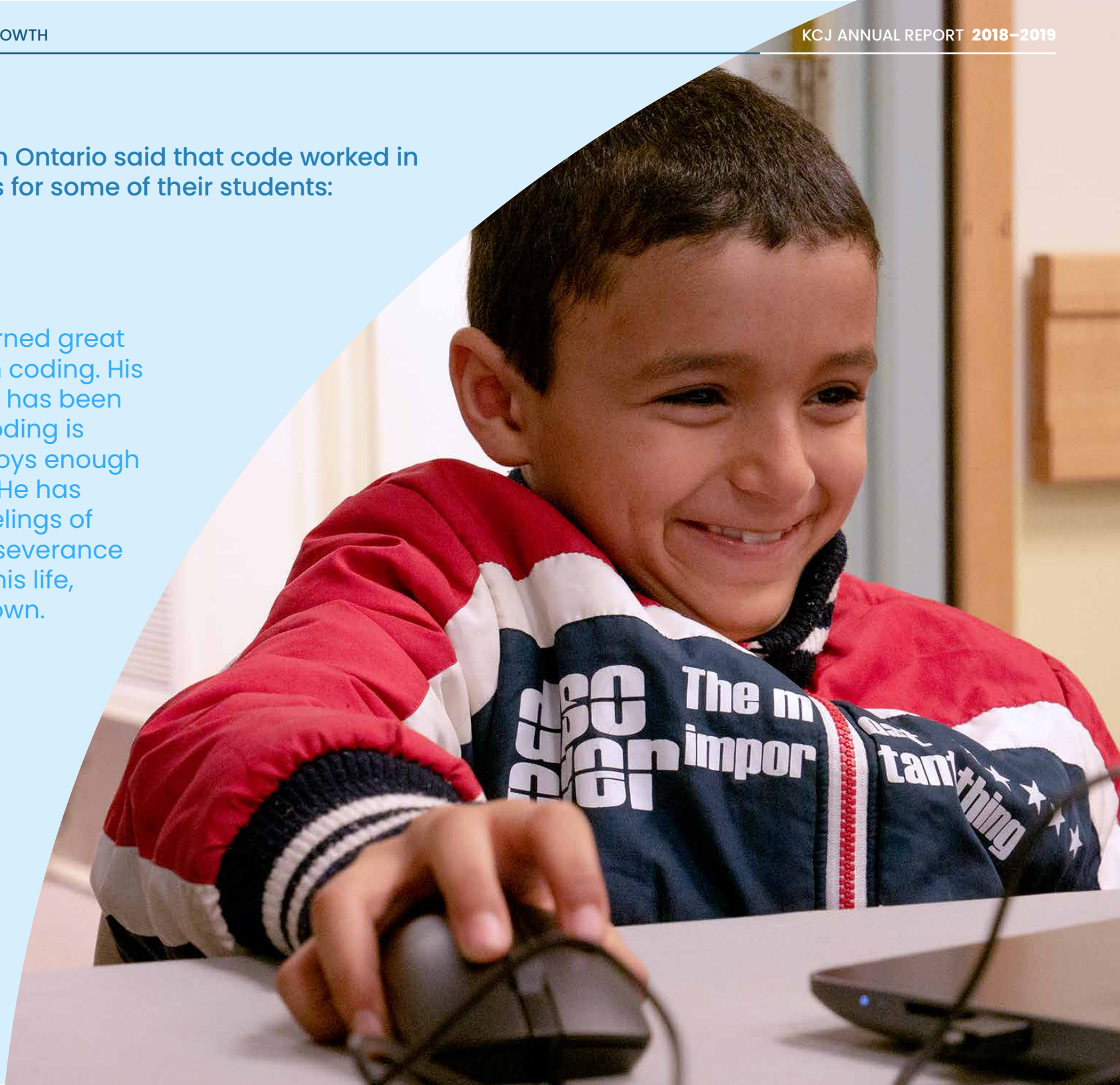
2 Inspiring Partnerships

Sometimes code can be found in the unlikeliest of places... like basketball!

Learning to code is more than just acquiring a new skill, it's also about connecting it to other interests and fields to expand the creative possibilities it offers.

Throughout the last year, we developed new partnerships that reached some amazing heights in the name of digital literacy.

These partnerships not only allowed us to introduce digital skills through new avenues, they also helped celebrate an exciting year for Canada — one of our very own astronauts went up into outer space!

Code in the Stars
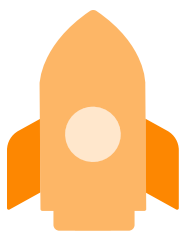
Astro Pi is an annual challenge collaboratively launched by the European Space Agency and the Raspberry Pi Foundation that lets young programmers send their code to the International Space Station (ISS); a challenge that's always been a great fit with KCJ.

This year we took Astro Pi even further. Thanks to sponsors like SAP and CanCode, we launched our own initiative, Code in the Stars, in partnership with the Canadian Space Agency (CSA). The goal was to promote Astro Pi across the country and to engage Canadian kids in David Saint-Jacques' six-month mission to the International Space Station — the longest mission completed by a Canadian astronaut.

A cause for celebration! On January 31, students and teachers gathered at Lord Selkirk Elementary School in Vancouver B.C., to find out more about life in space during a Q&A with Canadian engineer and astrophysicist Saint-Jacques live from the cosmos.

"Seeing David Saint-Jacques communicate directly from the ISS with a very happy bunch of children really brought coding and space to life, and was truly an out of this world opportunity!"

said KCJ President Indra Kubicek, who was on hand to launch the series.

With support from SAP, SSENSE, and the federal government's CanCode program, we also ran Astro Pi workshops throughout the country and created a webinar for parents and teachers so that they could help their students in the classroom and their children at home on their journey to send code into the stars!

Hoops & Loops

KCJ was thrilled to partner with NBA Canada to host Hoops & Loops, two basketball-themed community events in Vancouver and Montréal last Fall. Thanks to the partnership and support from SSENSE and CanCode, we reached a total of 300 kids.

Students from each city got the chance to meet with NBA Legends, interact with the victorious Raptors' mascot, move alongside team dancers, and of course, experience coding through basketball-inspired coding stations that featured unplugged activities, animation and hardware.

We were happy to hear that the students felt inspired after full, fun-filled days. "I absolutely loved the techniques in coding and how easy some of it is," said Macy Nguyen, a student from Vancouver. "My first impression of coding was 'Oh it looks okay…,' but that was when I hadn't learned the fun things about it. The presentation made myself get into coding and I really enjoy coding now."

Addressing the kids in Montréal, NBA Legend Jerome "Junkyard Dog" Williams said that coding is universal. "You may or may not use it later on, but it exposes you to the possibilities — because coding is in everything," he said. We completely agree!

Code Clubs across Québec

We joined the international Code Club family because we wanted to make sure that all Canadian kids have the opportunity to try their hand at coding.

Our nationwide network grew steadily, and we were excited when we reached 100 clubs across Canada. But in the past year, our growth has only intensified. We can now proudly say that we have over 700 active clubs across every Canadian province and territory.

Now our mission is to make Code Clubs an integral part of coding education. On May 25, 2019, Ubisoft, a world leader in video game and interactive services, and the Ministry of Economy and Innovation of Québec invested $350,000 for the deployment of our Code Club program across the province of Québec over the next two years.

The announcement was made at the Maison de la littérature library in Québec City, and it brought together our CEO Kate Arthur, the Honorable Jean-Yves Duclos, Minister of Families, Children and Social Development, Mr. Yannis Mallat, President and CEO of Ubisoft Canadian Studios, and Mr. Louis Frémont, Head of Multimedia Services, Libraries of Québec.

Through this project and with the help of our partners, we plan to begin and support more than 200 new clubs in libraries across Québec and reach 8,000 children over the next two years. There are already clubs in 10 regions of Québec, but this project aims to open clubs in all 17 regions.

"With our program Ubisoft Education, we aspire to do our part to prepare young people in Québec for the jobs of the future," said Yannis Mallat. "That's why we are committed to investing $150,000 in the project to grow Code Club throughout Québec by 2021. With Code Club, we invest both in our children's future and in the socio-economic future of Québec, and all the regions."

On his part, Mr. Duclos said "youth are the future of our country and we are making great efforts to ensure that they have all the skills they need to thrive. We are among the brightest young people here in Québec City and we will continue to help them build their future."

A Bright New Space

DRW—formally known as Vigilant Global—was one of our very first sponsors, and helped us find our footing all those years ago. Thanks to DRW, our head office was stationed for over 5 years at Notman House, a wonderful startup ecosystem. In addition to securing our workspace, DRW has continued to support our various local activities for kids in Montréal.

With a year of spectacular growth behind us and many new initiatives on the horizon, it felt like a good time for a change of scenery.

We said our goodbyes and many thanks to Notman House, and moved our Montréal head office to Anomaly, a bright new co-working space located in the buzzing Mile End neighbourhood.

Another plus: in our new digs, we're surrounded by a lot of friends and partners.
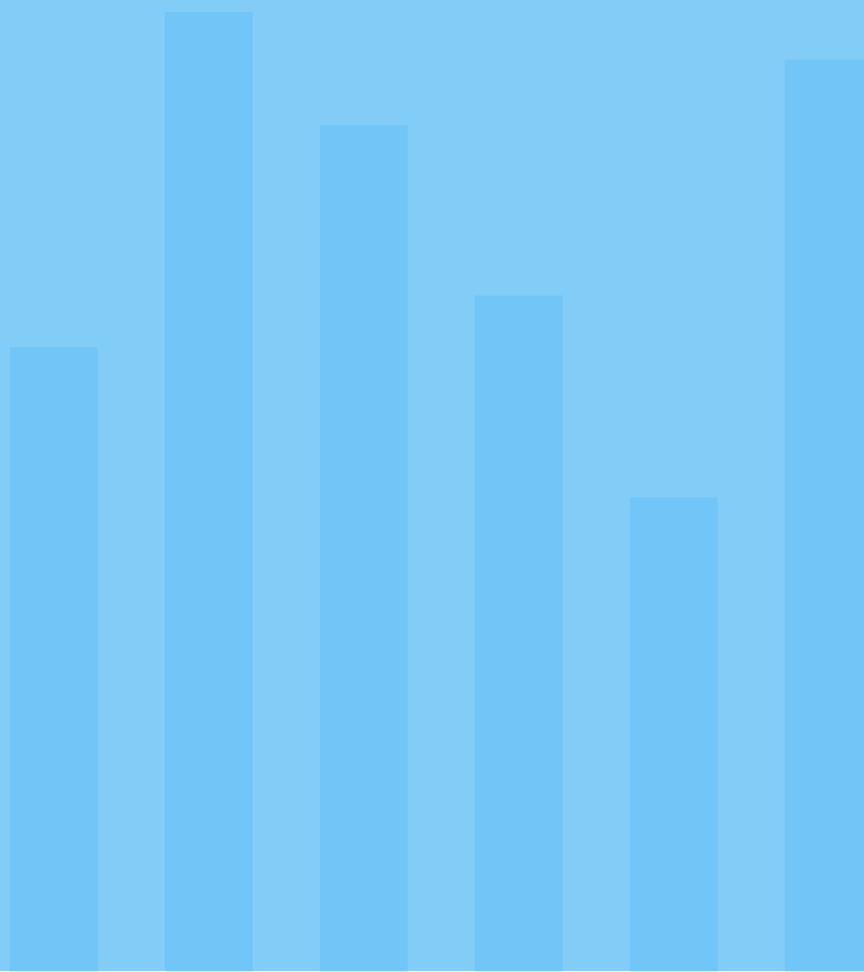
Thanks to DRW's contribution to our success and growth over the past 5 years, we're now working out of a new environment that will be a solid home base for our national team, allow us to create new partnerships, and build more exciting educational projects and initiatives that will have a larger impact on Canadian kids in the years to come.
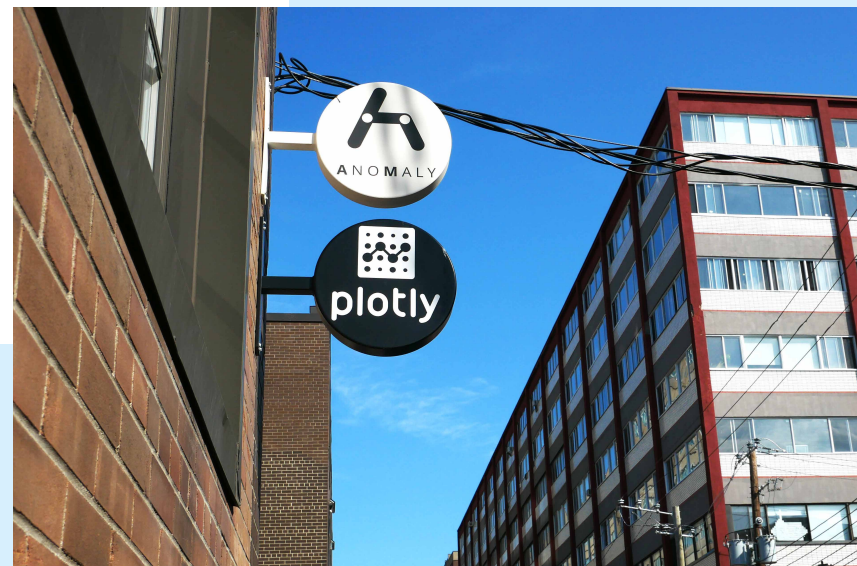
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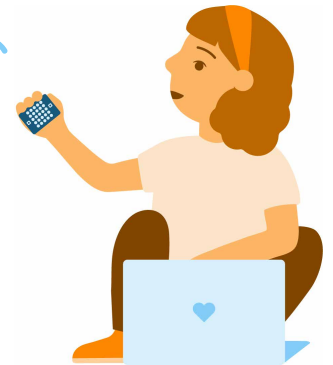## July 2018 – July 2019

Kids

112,723
Total reached

50.5%
Girls

72%
English

28%
French

53,335 Kids reached in classrooms

19,834 Kids reached in communities

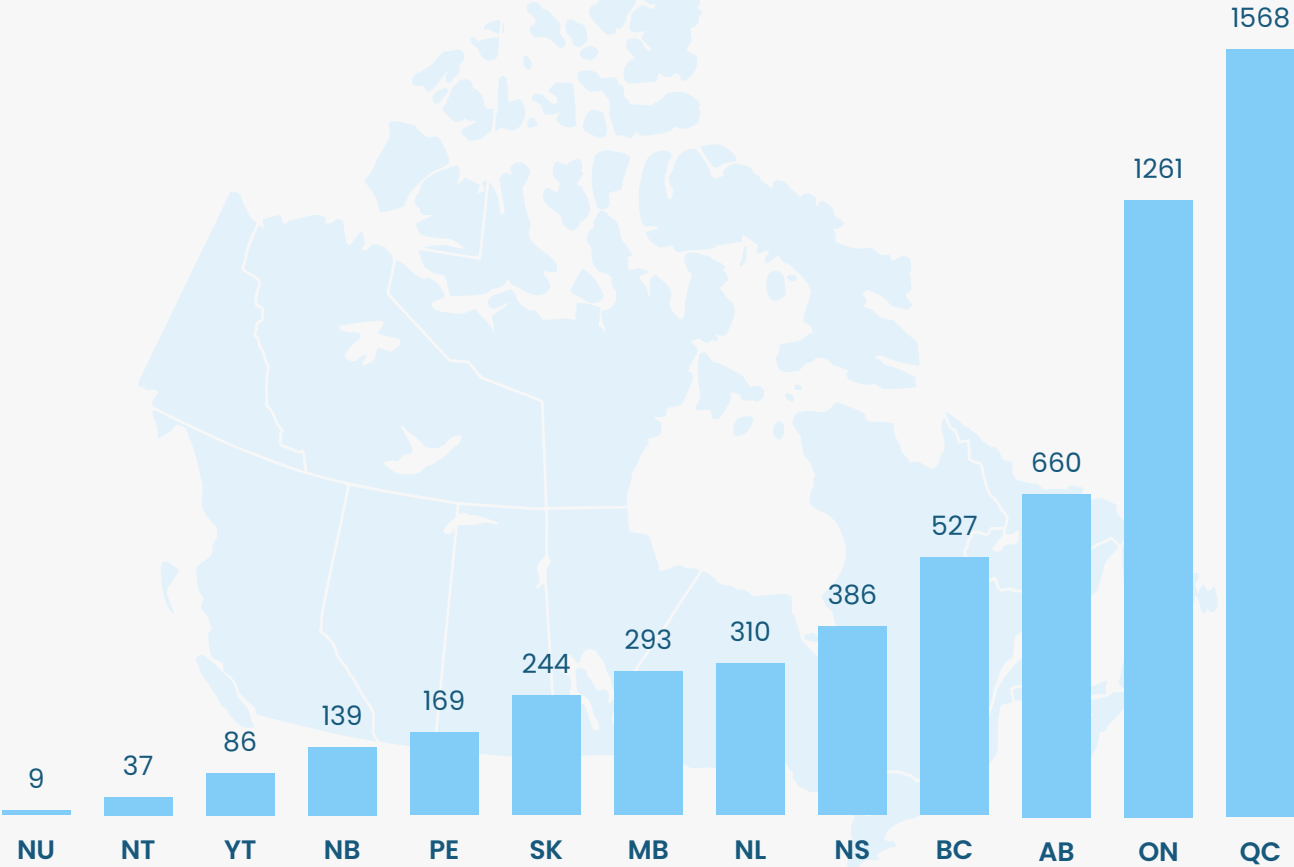**738** Total Code Clubs

434 New clubs this year

Hours spent coding with us:

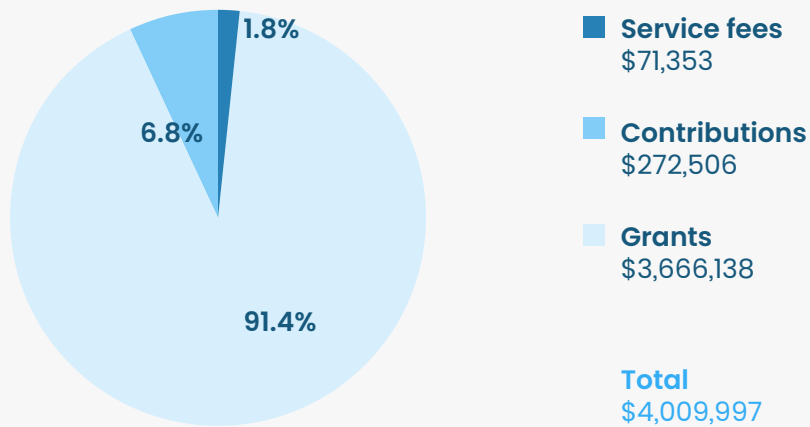106,670

Teachers

Teachers reached per province

NU	NT	YT	NB	PE	SK	MB	NL	NS	BC	AB	ON	QC
9	37	86	139	169	244	293	310	386	527	660	1261	1568

Total reached

5689

Hours spent coding with us:

15,722

General statistics

Financial distribution

1.8%
6.8%
91.4%

■ **Service fees**
$71,353

■ **Contributions**
$272,506

■ **Grants**
$3,666,138

Total
$4,009,997

Web traffic

14.5%
85.5%

Visitor type

■ New visitor
■ Returning visitor

54.2% 45.8%

Visitor gender

■ Female
■ Male

Value of resources given to classrooms*

$1,323,805

**Average age
of visitor**

35-44

**Times our resources
were downloaded**

7112

*Market value as of July 2019

4 Community Highlights

Seeing impact on a national scale is extremely gratifying, but what really keeps us going is hearing heartwarming stories directly from communities.

Whether it's falling in love with code, an "aha" moment, or a story of perseverance, looking back at community highlights on a local scale is the most rewarding way to see the lasting effect code can have on a child's confidence.

Whitehorse
YUKON

In the dead of winter, we traveled to Whitehorse, YK. At 10AM it was pitch black and freezing cold outside Elijah Smith Elementary School, but the kids in class were as bright as the LED lights they were coding on their micro:bits.

There was an excitement and energy coming from the classroom as kids gathered in groups to learn to code festive projects, so much so that the neighbouring classroom teachers stopped in to ask us to visit their students. What a fulfilling day for us all!

The next day, over 50 teachers flew in from across the Yukon to learn computational thinking and code with us, so they could return to their communities with new skills to share with their students and peers.

On the third day, a teacher from Whitehorse's francophone community started Yukon's first volunteer-led Code Club, completing our goal to have clubs running in every province and territory.

Bringing together students, teachers, and community leaders, this story is one of many that demonstrate how we make sustainable, long-term impact in Canadian communities.

Ottawa
ONTARIO
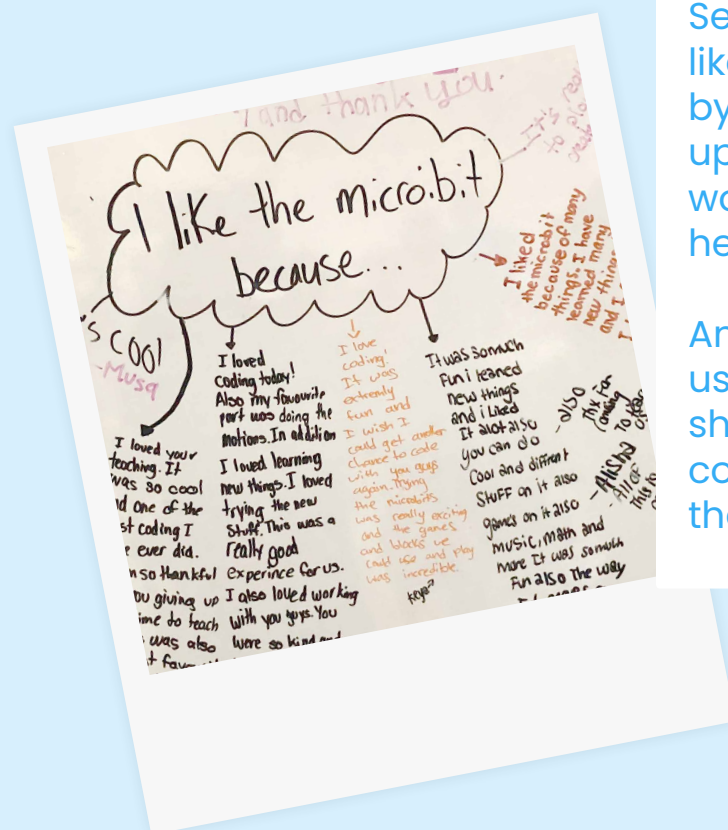
After a workshop at a grade 5 class one morning in February, the class' teacher commented on how impressed she was with how engaged the children were during the coding workshop. It was then she brought my attention to one of the girls in that class:

" "

See the little girl up front? Well, I've never seen her like this. You see she easily becomes overwhelmed by technology and has had a hard time keeping up, which was the case when we did Scratch. She would become both frustrated and despondent at her inability to keep up.

And today, for the first time I saw none of her usual frustration with the matter. To the contrary, she appeared truly engaged and growing in confidence as the class progressed. More than that, she was enjoying herself!

St. John's
NEWFOUNDLAND

At a coding event last November, one child struggled with a complicated project in Scratch. When the instructor and volunteers all failed to debug something, the child's mom stuck with him and figured it out. "I love you mom!" he said, and gave her a big hug.

Last August, we celebrated nature, creativity, and code under the sun in Charlottetown. During a one-week camp with indigenous and non-indigenous youth, kids learned how to use micro:bits and learned how to incorporate art into technology, guided by a local artist, Danielle Gotell.

The projects - created in collaboration with STEAM PEI and Gotell - followed the theme of nature, and kids quickly became inspired by the indigenous medicine wheel, all in the hopes of revealing subtleties hidden in nature's rhythm.

Charlottetown
PRINCE EDWARD ISLAND

Calgary
ALBERTA

On a chilly December day, a girl in grade 5, newly arrived in Canada, came up to the instructor during a classroom workshop and said, "I am learning so much, when I grow up I want to be a programmer! I can't wait to try more and see what happens."

A boy initially averse to the idea of learning code agreed to give Code Club a try this past Fall. His mom said he was very reluctant to go because he didn't think he'd like it and didn't know anything about coding,

but after the first meeting he went back every week. Because of Code club, he showed an interest in school and got his teacher to sign up for a classroom workshop with KCJ before Christmas.

Since then, he was selected in March to participate in the YYCstem competition team to represent his school and had so much fun!

5 #kids2030: Looking Ahead

KCJ is dedicated to ensuring that Canada shines on the international stage as a world leader in digital skills education. In 2017, the United Nations introduced 17 global goals to inspire all sectors of society to work together to solve problems and create a more prosperous world by the year 2030.

In the era of artificial intelligence, with it's potential to both accelerate and disrupt progress, achieving goal # 4, equitable high quality education, is crucial. #kids2030 is our contribution towards this global mission.

What is #kids2030?

#kids2030 is a long-term initiative that brings artificial intelligence, digital citizenship, and global issues to all of our programs, and to the forefront of kids' education. This 10-year strategy will ensure that kids today and tomorrow are included in the action to drive real change.

Kids will learn how to code, how to integrate AI and code, and how they can use their digital skills to solve global issues.

Piloting

Thanks to funding from Microsoft in Spring of 2019, we had the opportunity to build a curriculum that focused on AI, ethics, and digital citizenship.

On a sunny morning in early April, we went back to the classroom where KCJ first taught kids to code six years ago. Marjolaine was the first teacher to welcome us into any school, so it felt fitting to test out our new AI curriculum;

once an early KCJ adopter, always an early KCJ adopter!

After just one workshop of introducing unplugged games and hands-on activities centred on AI, Marjolaine could see the impact. The next day, kids were debating the ethics of Siri. All week she heard from parents who had heard about the pilot from their excited kids. She saw even more kids than usual signing up for summer camps.

Inspired by her feedback, we knew we were ready to host 2 more in-classroom pilots and 4 teacher training sessions in Montréal, Toronto, and Vancouver. The response has been overwhelmingly positive.

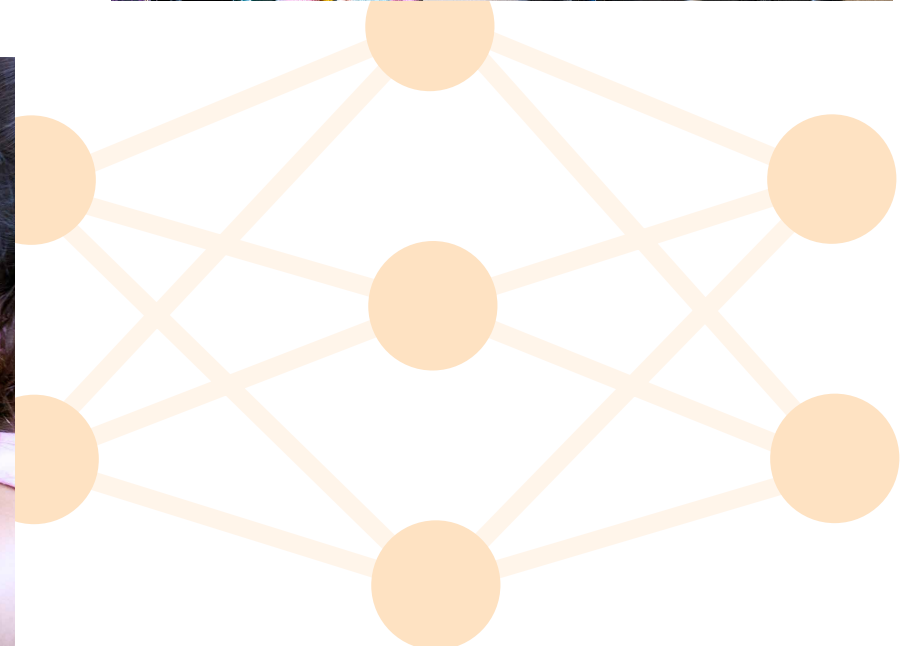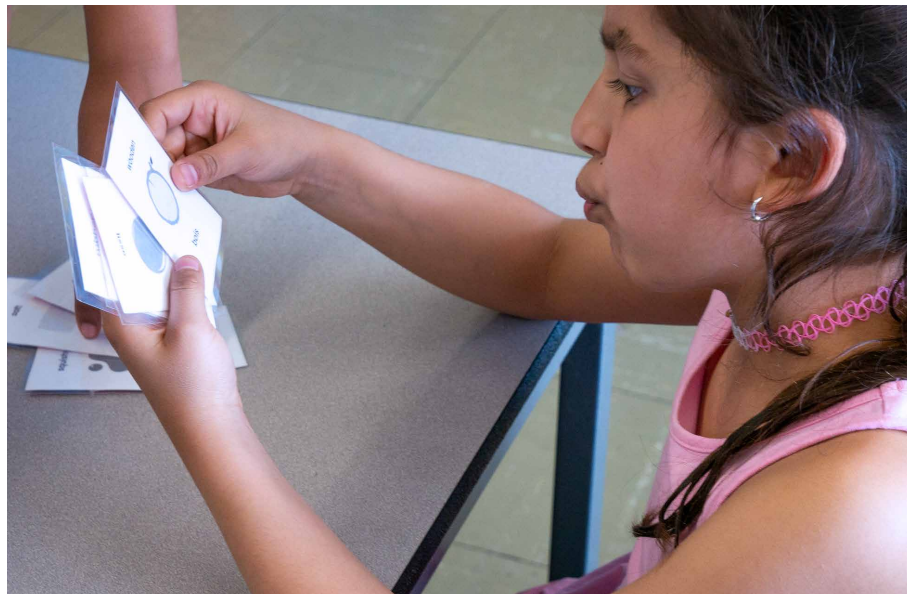Through #kids2030, we will reach **1,000,000** kids and **50,000** teachers by 2030.
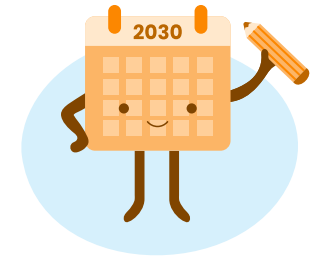
A Call to Action

In April, La Presse published our Open Letter as a call to action, and to support the launch of #kids2030.

"Yoshua Bengio is a prominent Canadian AI researcher and a recent recipient of the highly prestigious Turing Award. He stated that, 'children need to understand what AI is and how it works. It could be useful for many of them as a tool later, but more importantly, as citizens, all of them will need to think critically about the ethics and social impact of AI.'"

Signed by renowned researchers and industry leaders in the fields of science and AI, including Yoshua Bengio, we wanted this letter to help make sure the public understood that teaching kids about AI is necessary in order to ensure they become informed, active, and responsible citizens in our increasingly digital world.

We want our impact to be sustainable and reputable, and one of the ways to do that was by bringing on many of the signatories onto our AI Advisory Board.

Key Sponsors & Partners