UNB | McKenna Institute
UNIVERSITY OF NEW BRUNSWICK
EST. 1785

IMPACT REPORT 2023

CONTENTS

$50+ MILLION
raised to date

18 MONTHS AND WE'RE JUST GETTING STARTED

3
Fellows/Research Chairs established

$10 million
investment by the Government of New Brunswick

$5.2 million
Indigenous Youth Digital Acceleration Program in partnership with JEDI and Ulnooweg to develop a mobile unit with STEAM related digital exploration tools that are culturally relevant

$1.45 million
to expand the Promise Partnership program with digital mentors across NB in priority neighbourhoods

$1.25 million
scholarship funding raised for underrepresented groups

$125k
scholarships awarded

+44%
in graduate enrolment in computer science

+14%
in undergraduate enrolment in computer science

1,000
students taking computer science and growing exponentially

+35%
computer science co-op placements year over year

Top 20%
rank in the world on the *Times Higher Education's* 2023 World University Rankings list for UNB's faculties of computer science and engineering

99
students in the first 3 Coding Bootcamps

A MESSAGE FROM OUR FOUNDER

It takes a lot of talent, energy and determination to change the economic trajectory of a province. So I want to congratulate you: This report is a testament to the success that you and all our other champions have had, in turbocharging New Brunswick's vibrant tech economy through the creation of the McKenna Institute.

Thanks to the support of partners, donors and advocates like you, the Institute is building a world class, inclusive tech talent pipeline from K-12 to post-secondary and beyond.

The philosophy is simple: if we build the best talent pipeline, industry will thrive. I'm here to tell you that our message has been heard and our momentum is growing.

The Institute has raised more than $50,000,000 in less than 18 months and has accelerated talent development dramatically, with some 1,000 students taking computer science and growing exponentially. It has made large commitments to digital health, artificial intelligence, data science, digital agriculture, and digital entrepreneurship, and there are many more announcements to come.

I want to thank you for all that you have done and continue to do to make this generational change possible.

With your support, the McKenna Institute and UNB are leading a digital transformation that will establish a place for the people of this province in the future of commerce and industry.

We couldn't do it without you.

THE HON. FRANK MCKENNA, PC OC ONB KC

"OUR MESSAGE HAS BEEN HEARD AND OUR MOMENTUM IS GROWING."

"WE UNDERSTAND THE POTENTIAL OF DIGITAL TO TRANSFORM OUR ECONOMY AND SOCIETY."

EXECUTIVE DIRECTOR'S MESSAGE

It's more evident than ever that here in New Brunswick, we understand the power and potential of digital to transform our economy and society.

At the McKenna Institute, we are working hard to implement our agenda for digital transformation in this province and beyond, and we have many successes to celebrate.

The UNB Coding Boot Camp, for example, is directly addressing our province's Top 3 tech industry labour shortages. Nearly $350,000 in financial support has been offered to date to learners who are traditionally underrepresented in the IT workforce.

Thanks to donor support, UNB's successful Promise Partnership mentoring and tutoring program for children in economically disadvantaged communities is expanding to include a new curriculum to foster digital literacy in communities across the province. It is vital that all New Brunswick youth, regardless of circumstance, have the opportunity to become digitally literate.

The McKenna Scholars program is helping to create a rich pool of tech talent with diverse skills and backgrounds by supporting underrepresented individuals working to join the technology sector. In its first year, the program has already attracted $1.25 million in donor support and awarded $125,000 in scholarship funding.

These successes – and many others you will read about in these pages – are tangible, and they are thanks to donors like you.

ADRIENNE OLDFORD
EXECUTIVE DIRECTOR

Dick Carpenter with Frank McKenna

TAKING THE LEAD IN AI

THE DATA SCIENCE AND ARTIFICIAL INTELLIGENCE INSTITUTE AT UNB

Artificial intelligence (AI) is growing rapidly as a major influencer of the global economy, with a projected worldwide impact of $15.7 trillion by 2030, according to projections made by PwC.

With an aim to drive development of artificial intelligence and data analytics in New Brunswick, the McKenna Institute is leading the creation of a new research institute.

The Data Science and Artificial Intelligence Institute at UNB will support the development of interdisciplinary research across UNB's faculties and campuses.

The Institute, recently approved by UNB's Board of Governors, was made possible by foundational gifts from Moncton businessman and UNB alumnus Richard S. "Dick" Carpenter and other donors. Securing a well-respected and credentialed director for the Institute is a priority which we intend to have finalized in the coming weeks.

AI and data science have become essential elements in the creation of effective digital products and services. The Data Science and Artificial Intelligence Institute at UNB will bring together researchers from multiple disciplines, providing shared resources for
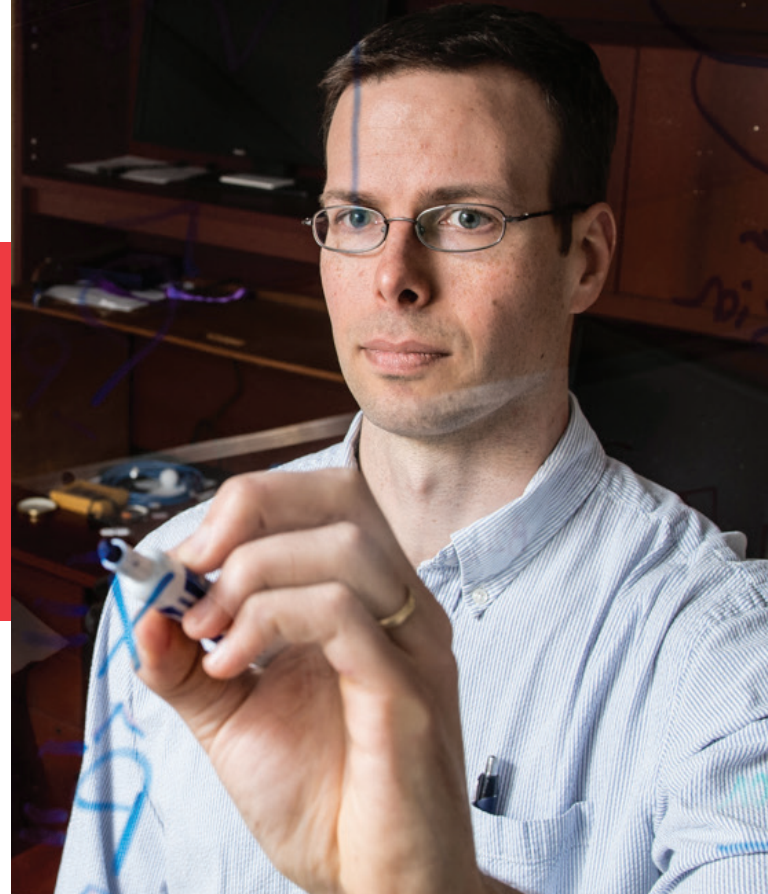
conducting research on topics of interest, to answer deep research questions and to provide solutions that address societal challenges faced by our community.

By connecting expertise from across campuses, faculties, and departments, the Institute will act as a multiplier of UNB's research capacity in artificial intelligence and data science; it will allow for innovative multidisciplinary solutions; it will gain access to resources unreachable to individual researchers; it will allow for a great increase in development of highly qualified personnel; and it will create a national point of reference for AI and data science research. The Institute will complement the Université de Moncton's established strength in applied AI, enabling New Brunswick generally to become Eastern Canada's applied AI hub for business.

The Institute will have a distinct advantage over other AI research centres in Canada because it will be more inclusive of applied research, ensuring that any competitive advantages UNB researchers develop are rapidly transferred to the community. By creating verticals within the Institute to focus on areas such as health, gaming, and agriculture, this applied focus will make the Institute a game-changer for businesses in New Brunswick and Atlantic Canada.

Dr. Jon Sensinger has been working on integrating artificial intelligence and prosthetic limbs since 2007.

If you would like to partner with The Data Science and Artificial Intelligence Institute at UNB, please contact: Luigi Benedicenti, dean of computer science at Luigi.benedicenti@unb.ca

THE MCKENNA SCHOLARS PROGRAM

With a focus on women, Indigenous students, and students in financial need, the prestigious McKenna Scholars program is attracting the best and brightest students from across Canada and around the world, building a community of future leaders that will accelerate talent and ideas in a digital New Brunswick.

In its first year, the McKenna Scholars program has received $1.25 million in scholarship funding, with $125,000 awarded to exceptional students in computer science and software engineering programs on our Fredericton and Saint John campuses.

New McKenna Scholars awards were granted to fourteen exceptional students, a significant step toward the McKenna Institute's mandate for a greatly expanded and even more engaged faculty of computer science.

Donor support for McKenna Scholars awards is a vote of confidence not just in the McKenna Institute but also in UNB's faculties of computer science and engineering, which were ranked in the top 20 per cent in the world on the *Times Higher Education's* 2023 World University Rankings list.

The McKenna Institute is proud to assist in UNB's mission to grow its computer science faculty to be inclusive, equitable and diverse. Together, and with the support of our donors, we are creating opportunities for underrepresented students in computer science programs, giving them a place in New Brunswick's exciting digital future.

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ASHLEY KING
3RD YEAR COMPUTER SCIENCE
JOHN KHOURY SCHOLARSHIP

"

I fell in love with the idea of working with computers and programming… I've really found enjoyment in my classes and work experience. I'm really grateful that you believed in my potential.

"

THE AWARDS ARE AS FOLLOWS:

The George F. Doherty Memorial Scholarship

Valued at $2,500 and awarded to a Fredericton campus student who is enrolled in the bachelor of computer science degree program. Selection is based on academic achievement, financial need and demonstration of entrepreneurial spirit.

The Dwight and Fay Fraser Scholarship

Valued at $4,000 over four years and awarded to a student enrolled in a computer science or software engineering undergraduate degree program. Selection is based on academic achievement, with preference to students from high schools in Carleton County, N.B.

The Georgio Gaudet Scholarship

Valued at $10,000 and awarded to a woman student enrolled in a computer science or software engineering undergraduate degree program. Selection is based on academic achievement.

The John Khoury Scholarships

Four awards valued at $15,000 each and awarded to students enrolled in a computer science undergraduate degree program. Selection is based on academic achievement, and preference may be given to women and/or Indigenous students or those in financial need.

> I'm extremely appreciative of the scholarship I've received - it just makes it so much easier to go to university with a little bit less stress. I'm in the computer science co-op program, gaining lots of experience learning what I want to do with my degree.

FRANCESCA STEWART
2ND YEAR SOFTWARE ENGINEERING
FRANK MCKENNA COMPUTER
SCIENCE SCHOLARSHIP

The Mais Family Foundation Scholarships

Two awards valued at $5,000 each and awarded to students on the Fredericton campus enrolled in a computer science or software engineering undergraduate degree program. Selection is based on academic achievement and demonstration of entrepreneurial spirit through involvement with the J. Herbert Smith Centre for Technology, Management and Entrepreneurship.

The Frank McKenna Computer Science Scholarship

Valued at up to $15,000 and awarded to students who are enrolled in the Bachelor of Computer Science, Bachelor of Science in Software Engineering and/or Bachelor of Science in Computer Science. Selection will be based on academic achievement. The recipients must have graduated from James M. Hill, Miramichi Valley, and/or North and South Esk High School. Preference will be given to entrance students.

THE MCKENNA FELLOWS & RESEARCH CHAIR

Big ideas can change the world, but they need support to go from concept to reality. The McKenna Institute nurtures progress by convening and connecting the brightest minds in New Brunswick and beyond to focus on issues related to digital transformation. It is our mandate to accelerate the recruitment of talent and adoption of ideas relating to digital transformation. The McKenna Fellows program is helping us achieve these goals.

Through the creation of strategic chairs and targeted training and employment initiatives, the McKenna Institute is nurturing a workforce and a society that are ready for the incredible opportunity before us.

The McKenna Fellows program is an example of this philosophy in action. It supports collaboration across industry, academia and government, engaging stakeholders, faculty and graduate students to ensure good ideas are examined and executed within New Brunswick.

Over the past 18 months, we have been pleased to launch two inaugural McKenna Fellows and a Research Chair at UNB with the support of our community and industry partners.

Bill and Ed Barrett with Frank McKenna at the 2022 Digital Innovation Summit.

Dr. Kenneth (Ken) Kent, the Barrett Chair in Entrepreneurship for Digital Transformation will advance the faculty of computer science mission while furthering its shared goals with the McKenna Institute to drive digital progress in New Brunswick.

❶ MCKENNA FELLOW IN DIGITAL EDUCATION

Dr. Matt McGuire

Located in UNB Fredericton's faculty of education, this fellowship was created through the generosity of an anonymous donor. The McKenna Fellow in Digital Education is working with the McKenna Institute, the New Brunswick Department of Education and Early Childhood Development (EECD) and other education stakeholders to develop and implement a new K-12 digital literacy program across all New Brunswick schools. The inaugural Fellow, Dr. Matt McGuire, has developed educational technology courses in UNB's bachelor of education program and is developing courses for the master of education program. These courses are enhancing future teachers' knowledge and skills in educational technologies and ultimately will strengthen all New Brunswick students' digital literacies and competencies. As a tangible example of the changes taking place as a result of this fellowship, 50 teachers from Education and Early Childhood Development are participating in a Digital Learning Network Cohort that connects educators with UNB's faculty of computer science.

2 BARRETT CHAIR IN ENTREPRENEURSHIP FOR DIGITAL TRANSFORMATION

Dr. Kenneth (Ken) Kent

Located in UNB's faculty of computer science, the Barrett Chair in Entrepreneurship for Digital Transformation will advance the faculty's mission while furthering its shared goals with the McKenna Institute to drive digital progress in New Brunswick. This chair was created through a generous $2.5-million commitment from New Brunswick business leaders and entrepreneurs, Edward (Ed) and William (Bill) Barrett. The Inaugural Barrett Chair, Dr. Kenneth (Ken) Kent, has the background in entrepreneurship and extensive experience with industry partnerships necessary to lead our entrepreneurship evolution.

3 THE WILSON-MCKENNA FELLOW IN DIGITAL SUSTAINABILITY

This felllow will focus on the power of technology to further enhance environmental, social, and governance (ESG) reporting for organizations across the globe and to be a catalyst for digital solutions to sustainability strategies. The chair was created through a gift of $300,000 from Sackville, N.B. business and community leaders Jane and Mike Wilson. The Wilson-McKenna Fellow will research, examine, and promote ESG through a digital lens, contributing to the development and teaching of curriculum around digital sustainability in the context of ESG. There is an active search to recruit the inaugural Wilson-McKenna Fellow, with an aim to initiate this work in the fall.

These prestigious fellowships have enabled UNB to harness and focus the research capacity of some of our province's brightest minds, while reinforcing the Institute's long-term commitment to economic growth, social progress, and digital sustainability in New Brunswick and beyond. When you support the McKenna Fellows program at UNB, you make possible the digital transformation of industry and society.

DIGITAL LITERACY FOR ALL

Digital transformation offers New Brunswick a once-in-a-generation chance to leap to the front of the economic pack in our increasingly digital global economy. But how does one ensure that every young New Brunswicker has the opportunity to benefit, regardless of their family's economic situation?

The McKenna Institute has joined forces with UNB's acclaimed Promise Partnership peer-to-peer mentoring program and philanthropic partners to create The Promise Partnership Digital Literacy Initiative.

Since 2009, The Promise Partnership has taught literacy and numeracy to more than 2,000 economically disadvantaged children in Saint John through the volunteer efforts of more than 1,500 university undergraduates.

Through the philanthropic support of The Joyce Family Foundation, The Wesley & Patricia Armour Foundation and other partners, The Promise Partnership will work with the McKenna Fellow in Digital Education to develop, pilot and scale up a peer-to-peer digital literacy curriculum designed to meet the distinct needs

of economically disadvantaged K-12 students provincewide.

Contributions from philanthropic partners will enable UNB to reach up to 500 additional students in Saint John and up to 500 students in each New Brunswick community where the new curriculum can be delivered through local partners.

This innovative initiative affirms that anything is possible when we work together to create a future of opportunities for all citizens.

> The Promise Partnership provides students with an opportunity to shape their future and break the cycle of poverty. This gift isn't just about helping students from low-income neighbourhoods beat the odds of succeeding; it's about helping communities change the odds.

JEN BROWN
FORMER PROMISE PARTNERSHIP MENTOR, TUTOR AND STAFFER WHO GREW UP IN THE PRIORITY NEIGHBOURHOOD OF CRESCENT VALLEY

OUR TEAM

Meet our team members at the McKenna Institute who work with our donors and partners to achieve our collective goals.

Abby David
strategic program director

Lynne Faught
strategic program director

Ginette Gautreau
strategic program director

David Itoafa
digital success coordinator
IBM SkillsBuild

Lisa Johnstone
executive assistant

Sahil Mehta
digital success coordinator
IBM SkillsBuild

Adrienne Oldford
executive director

Melissa O'Rourke
strategic program director

Craig Poole
associate director, campaigns
Development & Donor Relations

Jeff Wright
executive director
Development & Donor Relations

PARTNERSHIPS FOSTER INNOVATION

Our success would not be possible without the help of partners in industry, government and the non-profit sector who are helping to enrich our province today and position it for a bright future with new levels of prosperity, progress, and pride.

Over the past 18 months, the McKenna Institute has helped secure multiple new partnerships that will advance the digital transformation of New Brunswick by accelerating the acquisition of talent and the promotion of transformative ideas.

UNB BOOT CAMPS

Thanks to an investment of $10 million by the Government of New Brunswick, the McKenna Institute, in partnership with TechImpact and UNB's College of Extended Learning, has launched a series of boot camps designed to meet the market demand for IT talent in the province. These boot camps directly address our province's Top 3 tech industry labour shortages (coding, data analytics and cybersecurity) and will provide students with a direct path to get hired in the New Brunswick tech workforce.

IBM SKILLSBUILD

UNB is working with IBM Canada to provide education and career readiness resources to students, businesses and community members across the province. To that end, the McKenna Institute is providing enhanced access to IBM SkillsBuild with its partners at UNB, Université de Moncton, and TechImpact. IBM SkillsBuild is a free digital training program that prepares users for in-demand, entry-level IT and non-IT roles in many industries. It enables UNB to develop custom pathways for companies that wish to upskill their employees.

The McKenna Institute's partnerships with corporations and community organizations will expand the reach of IBM SkillsBuild in the province, addressing one of the key challenges to tech development: breaking down the barriers that have historically prevented underrepresented groups from participating in and benefitting from technology.

THALES

The McKenna Institute has partnered with Thales, a global cybersecurity and defence company with their head office in France, to develop their Canadian National Digital Education Centre at UNB. The partnership has been funded by ACOA with support of $1.8 million for the development of the Centre.

The McKenna Institute will work with Thales to develop K-12 Cybersecurity programming in both official languages to be offered throughout New Brunswick to engage students in cyber education and science, technology, engineering and math (STEM) careers generally.

The Thales' Cyber Security Operations Centre (CSOC) for North America will eventually employ more than 110 highly skilled workers in Fredericton.

PARTNERSHIP IN EDUCATION

The McKenna Institute has helped UNB partner with New Brunswick's Department of Education and Early Childhood Development to change how teachers approach digital education.

Our Digital Learning Network brings together 50 in-service teachers across all regions of New Brunswick who are being trained to integrate technology directly into their teaching practices to give students the skills they need to excel in the six digital core competencies of New Brunswick's Digital Learning Framework. Connecting High School teachers and computer science faculty creates a pathway for top talent to remain in New Brunswick to study and connect to employers through UNB's co-op education program.

UNB has made additional resources available to educators through the annual Tech 4 Teachers Conference and by making an award-winning contribution to New Brunswick's Centre of Excellence for Digital Innovation.

SRI VISHNU EDUCATION SYSTEMS

In collaboration with Opportunities New Brunswick, UNB has formed a partnership with the Sri Vishnu Educational Society (SVES) to provide an employment experience for SVES students through the master of computer science by coursework (MCSC) program at UNB Fredericton.

Through this partnership, SVES students will complete the course requirements for the MCSC at UNB while ONB will help to identify meaningful employment opportunities within private and public sectors.

SHOPPERS DRUG MART

Through the McKenna Institute, UNB has partnered with Shoppers Drug Mart to identify, build and test new models of health care for communities in need using pharmacies and new digital tools to make health care more accessible and convenient.

This initiative will identify and address specific needs or gaps in health care and design solutions to help to improve health outcomes. The goal will be to develop digital prototypes that could be deployed nationally, where relevant.

The McKenna Institute, Shoppers Drug Mart and Université de Moncton's Office of Innovation will be hosting a sector-based innovation event on digital health research in New Brunswick on Sept. 27, 2023 in Moncton.

PARTNERSHIP IN EDI

Historically disadvantaged and disenfranchised groups including women, Black Canadians and Indigenous persons are still not well represented in the technological professions reshaping our world. The McKenna Institute is helping UNB establish partnerships that are generating new equity, diversity and inclusion (EDI) initiatives designed to broaden our outreach into the community.

Through donor support of the McKenna Institute and an in-kind gift from MESH Diversity CEO, Mike Wright, UNB's computer science faculty will become the first in Canada to offer the MESH platform and leadership program to faculty, staff and students. A series of seven facilitated and engaging diversity and inclusion training sessions will be offered in a virtual, cohort-style format to a pilot group of up to 50 students and members of the faculty.

The university has approved the hiring of a tenure-track assistant teaching professor and a student support position to assist with EDI initiatives in computer science.
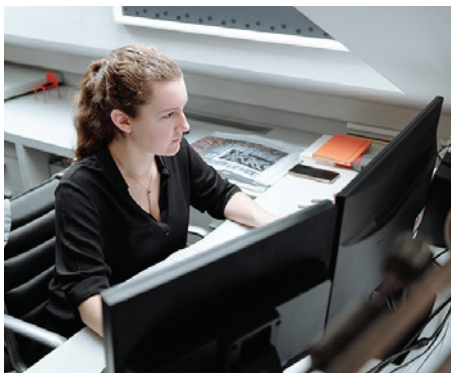
TD BANK

UNB has launched a cybersecurity training program focused on offering experiential learning opportunities for graduate students completing their master of applied cybersecurity (MACSec), with financial support from TD as well as internship opportunities at the Bank.

The Research Intensive Cyber Knowledge Studies (RICKS) program enables students to focus on important fundamentals and foundations, including privacy, information assurance and network security.

JEDI AND THE ULNOOWEG EDUCATION

Through the support of philanthropic gifts worth $5.2 million from Mastercard Foundation and $750,000 from TD Ready Challenge, UNB has been able to bring together the Joint Economic Development Initiative (JEDI) and the Ulnooweg Education Centre in supporting the Digital Acceleration for Indigenous Youth partnership.

Students will learn via a mobile technology unit that will bring educators and the necessary tools directly to Indigenous communities, focusing on uplifting cultural practices and values as part of the program. Opportunities in areas such as fabrication, cybersecurity, artificial intelligence (AI), and robotics, among others, will be shown as career opportunities to those with specific skills training.

MASTERCARD

Mastercard has partnered with UNB to advance cybersecurity research and training opportunities in the Internet of Things (IoT) sector.

Mastercard's investment will help advance UNB's Canadian Institute for Cybersecurity research and learning opportunities through sponsorship of UNB's IoT laboratory, establishing a cybersecurity research chair specializing in IoT security and supporting students through scholarships.

UNB researcher Dr. Rongxing Lu was named as the new Mastercard IoT Chair.

WHAT'S NEXT:

We are proud to be building a coalition of corporate and community partners dedicated to transforming the level of digital opportunity and economic output in New Brunswick.

Thanks to the many generous supporters who have invested trust and philanthropy in the strategic direction of the McKenna Institute, we are pursuing several emerging initiatives and partnerships which we expect to come to fruition in the year ahead, including new academic programs, rural strategies for digital education, broad community engagement initiatives supporting talent acquisition, international exchanges, digital literacy, and new programming fostering equity, diversity and inclusion.

Stay tuned for several high-profile partnership announcements in the months ahead, including agreements on new inter-institutional digital education programs and international scholarly exchanges.

OUR GRATITUDE

Thank you for your generous support of the McKenna Institute.

Together, we are working to design a technology-enabled tomorrow that improves life for every New Brunswicker.

Your support is vital to our success.

OUR DONORS & PARTNERS

Frank & Julie McKenna | Government of NB
Mastercard Foundation

ACOA | Bill & Ed Barrett | Richard Carpenter | Shoppers Drug Mart

Mathieu Arsenault | Natalie Arsenault | River Philip Foundation

Joyce Family Foundation | Margaret Norrie McCain

Thales | TD Bank | John Khoury

Mike & Jane Wilson | Wesley & Patricia Armour Foundation

Dwight & Fay Fraser | Allison & Clare McCain | Brenda & David Sansom

Joel & Denyse Doherty | Jim & Fiona Green | Friedrich Grein

Bill & Margaret Jones | Mais Family Foundation | Lois Walker

John & Marilyn Deweyert | Larry Hargrove | Claire LePage | Sadie Miller | Israel Unger

Special thanks to our in-kind partner, IBM SkillsBuild.

For more information on how you can help us embrace digital transformation for a bright future, contact:

UNIVERSITY OF NEW BRUNSWICK

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"This is the chance to do something truly breathtaking."

FRANK MCKENNA

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