Research & Innovation















In The Media
January – March 2016



Hitting the top 10 across Canada

Niagara College climbed the rankings for the third year in a row as part of Canada's Top 50 Research Colleges. The College also placed third-highest among Ontario's five leading institutions.

COVERAGE TYPE Print, Digital JANUARY 2016 stcatharinesstandard.ca

POST-SECONDARY EDUCATION

Niagara College, Brock climb research rankings

Research and its practical use for firms has been top of mind at Nia-

And here, food and wine, mechanical engineering, business administration and new media have led the way. That focus is being fruitful, with a

recent report naming the college as being among the top in Canada for research funding The report by Canada's Top 50

Research Colleges by Research Infosource Inc. places the college at No. Its ranking was based on total research funding for 2014 and is two

placings higher than last year. Since that first report in 2013, the college had also moved up three

Niagara College has also ranked third among Ontario's five leading colleges, with bested only by Sheridan at No. 9 and George Brown, which topped the national research

Using data from the past two years, the college's research funding also increased to \$5.34 million in 2014 from \$4.036 million in 2013 up more than 32 per cent.

"It's important to be good at what you're good at and not try to be mediocre at everything," said Marc Nantel, associate vice-president or research and innovation at the col-



Oksana Sytchouk, third-year Culinary Innovation and Food Technology program research assistant, is using the rotary evaporator for extracting oils and essences from botanical sources.

could make a difference with local industry partners, then we managed to attract the funding and also the group projects with great students, industry and faculty partners.

"And that made it possible to attract more money and projects." To that end, the college also saw a

bump-up in the ranking in terms of partnerships and projects. It moved to No. 5 from No. 8

among large colleges for the number of formal partnerships held, and No. 5 to No. 4 for "successfully completed projects," a 26 per cent increase in that area.

Niagara College receives research funding from various regional, pro-"By focusing our efforts where we vincial and federal agencies, and supports the hiring of students and graduates to work alongside faculty researchers in helping industry partners in the marketplace.

cal engineering technology, culinary innovation and food technology, business administration - marketing, and new media web design.

Before that it was mostly virtual real-FedDev funding allowed them in manufacturing. So we also developed our capabilities in manufacturing over the last few years,"

Canadian F expansion "h Brock Un in the surve **NEWS LOCAL** 2014 from 4

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Niagara College, Brock climb rankings period. Universi topped that r Brock pre said the univ 10 in terms growth over

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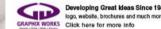








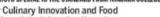


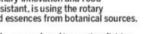














Nantel said about five years ago the college started to work with manufacturers in applied research ity, and agriculture/horticulture.

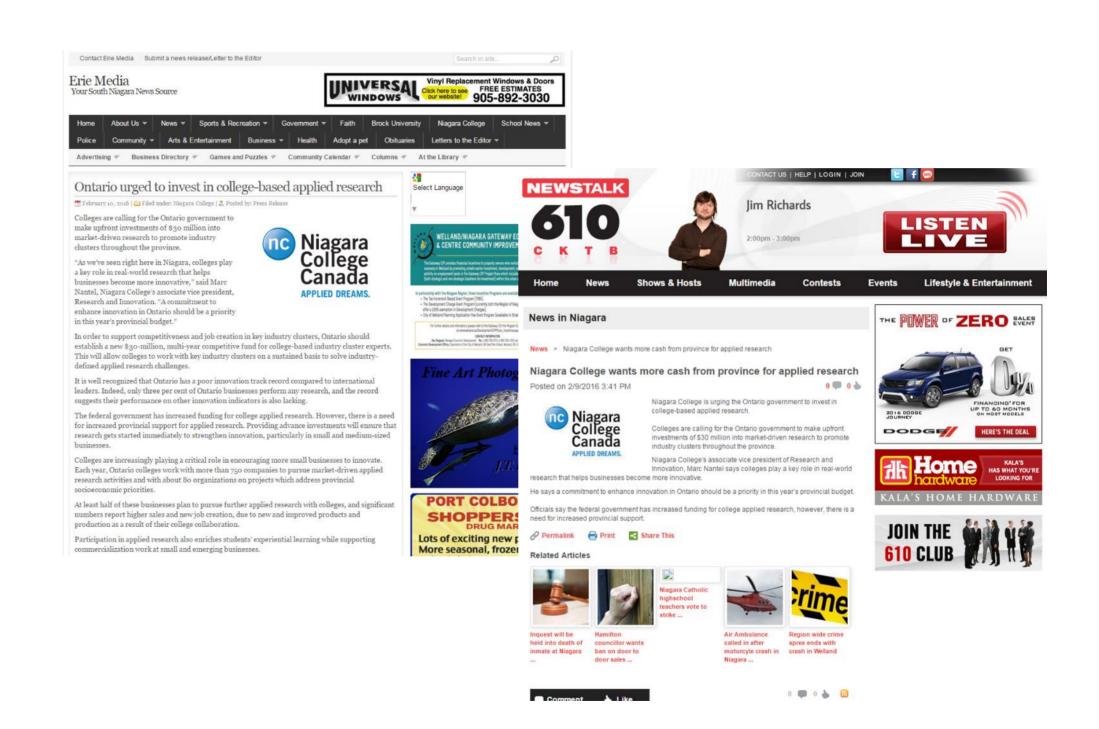
to take on 15 new projects, "and we had unique capabilities, where we that's administered by the college's took the 15 best ones," he said. "It



Strengthening the budget message

Colleges Ontario called on several of its members to contribute compelling evidence of applied research funding to the province's college. Niagara College's success with the MADD Virgin Craft Brew Lager was included in the narrative.

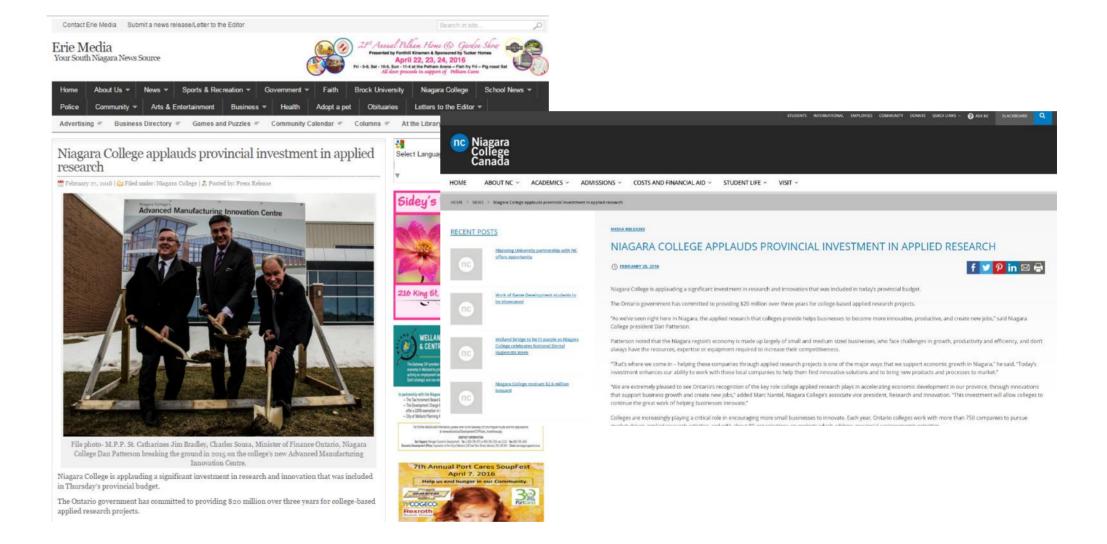
COVERAGE TYPE Digital, Radio **FEBRUARY 2016** <u>610cktb.com</u>, <u>eriemedia.ca</u>





Reaping the rewards

After the initial lobbying and editorial publications regarding the potential benefits of investing in applied research, Niagara College praised the Province of Ontario, and promoted the positive aspects for post-secondary education, as included in the provincial budget.



COVERAGE TYPE Digital

FEBRUARY 2016 <u>niagaracollege.ca</u>, <u>eriemedia.ca</u>

Getting that data to work for farmers

Dr. Mike Duncan's work with data related to precision agriculture is included in a feature article on the way in which growers are being enticed to utilize that data. Country Guide is a national farming publication.

COVERAGE TYPE Print FEBRUARY 2016 agcanada.com



BY GORD GILMOUR / ASSOCIATE EDITOR

CROPSGUIDE

DATA, DATA EVERYWHERE, BUT...

Some big ag players and Silicon Valley investors are convinced that precision agriculture and 'big data' are the next big things. Convincing farmers is another matter

marketers can sell it, but it's left to the farmers out in the field to figure out exactly how to make it work.

That's the dynamic today for precision agriculture, according to one specialist. Mike Duncan, a Natural Sciences and Engineering Research Council (NSERC) research chair at Ontario's Niagara College, says the possibilities of precision agriculture are tantalizingly close, but no one has fully cap-

Analysts often speak of an "adoption curve" for new technology. First, a few innovators test drive the technology. Then a slightly larger group of "early adopters" jump on board and work the bugs out of he system. They're followed by the "early majority," then the "late majority," which typically make up



JANUARY 2016

The figure shows the universal management zones that result from Niagara College's yield probability index (YPI) algorithm. The zones are the result of stacking a set of historical yield maps while asking "which cells in the yield maps overperformed the average this year?" The colours represent overlapping areas of where the crop performed well. The red areas are where the crop never overnerformed the average, and the green area are where the crop always overperformed the average

can use to make a variable-rate fertility application

Continued on page 28

country-guide.ca 27

two-thirds or more of the potential uses. The "laghe problem with any new ag technology is that the engineers can design it, gards" finally bring up the rear. the manufacturers can make it and the Duncan says precision agriculture in Canada has barely started down this path.

"There's a curve?" the outspoken Duncan asked rhetorically in an interview with COUNTRY GUIDE. "At the moment I would say there are some early adopters in the game. The hardware people are force ing the issue by selling machines that no one knows

That's not to say there aren't uses for it - there is a solid group of growers who has done the early spadework of breaking their fields up into produc tion zones and using variable-rate technology to make more efficient input applications. It's in the area of taking it one step further and generating data that can paint a clearer picture of what works and

loesn't that many lag behind, Duncan said. "The only people with data are the people with the new technology - and most of them use it as a really accurate clock and overwrite or ignore the data," Duncan said, "Of those who collect data, most have no data discipline and can't remember which field did what - so there are a small few with some really good data, a bigger bunch that have the capability but need to learn some data discipline. The rest

are following the argument, but not moving yet."

Karon Tracey-Cowan is a precision agriculture specialist with 20 years' experience through her company AgTech GIS, which works with agronomist and growers throughout Ontario

This perspective has given her a clear view of what's happening on the ground, and she says growers are ahead of industry on this one.

"I don't think farmers are getting the credit they deserve for the work they've done," Tracey-Cowan said. "The truth is the vast majority of growers in Ontario has used precision agriculture on their operation in some form."

She said those applications can take every form from a full effort to collect and use all available data, to more casual observations that the local agri-retailer

Convincing farmers to use big data

In the second of two articles on big data in precision agriculture, Dr. Mike Duncan offers his take on some of the challenges in standardizing the way in which farmers use that big data, in this country-wide publication.





One almost gets the impression Mike Duncan is tired of answering the questions What's "big data" mean for agriculture? And when will it really take off?

Duncan is a Natural Sciences and Engineering Research Council (NSERC) research chair holder at Ontario's Niagara College who has spent the past 10 years working on precision agriculture. Rather, he's a bit weary of having to explain how far

the business still has to come, beginning with even the most basic of concepts like what big data is, and accepting that agriculture isn't even close yet.

"We're not really truly talking about big data; not like most people talk about big data." Duncan explained. "If you want to see big data, go to the Interac banking centre. It's a bunker in London (Ontario) and you can sit there and watch millions of transactions flow in every hour. That's big data, and we don't have anything even close to that."

The problem, Duncan explains, is that in the case of Interac and other big business endeavours, there's a significant amount of data discipline. Standards are set for calibration, collection, management and analysis. As a result, reasonably clearcut conclusions can be drawn. In agriculture you're dealing with a lot of independent operators with varying views on the importance of data collection and varying methods of collecting the information.

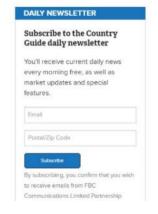
"How often is the average yield monitor calibrated, for example?" Duncan said. "If you want really good data, it should be calibrated before you start every field. I doubt that will happen and I bet that most yield monitors aren't even calibrated once a season."

Then there's the question of cleaning up the inevitable statistical noise that's going to be present in the reams of data that will be collected. For example, data cells some just don't add up — a cell that says corn yielded a bushel to the acre might be right beside one that says the same field just yielded 2,000 bushels an acre.

"If you want to be able to really use this data, and have it be meaningful, you've got to clean it up and remove those outliers," Duncan said.



Sources: Xignite, Inc. | ICE Canada Quotes are delayed up to 20 minutes



COVERAGE TYPE Digital

FEBRUARY 2016 country-guide.ca



E-business solutions for Niagara's SMEs

Carolyn Mullin is the featured guest writer for the Innovation Insights column in the January edition of Business Link Niagara. The story highlights the successes of Niagara College's recent round of projects funded by the Ontario Centres of Excellence Voucher for E-Business and Technology Adoption.

COVERAGE TYPE Print, Digital JANUARY 2016 businesslinkniagara.com







along the way.

INNOVATION INSIGHTS

Niagara College helps local SMEs embrace e-business

Digital Media Solutions team develops key online components.



latest e-business solutions, but for small to medium-sized companies (SMEs), the ability to keep up-to-date can be either cost-prohibitive or hindered by a lack of expert knowledge.

Niagara College's Digital Media 8 Web Solutions team, part of the Research & Innovation division, is a ready partne with SMEs to find solutions.

Through industry projects funded by various levels of government, students and recent graduates - many from the college's New Media Web Design program - tackle the e-business challeng es of local SMEs, and gain valuable experience towards their own employmen

The division is currently developing a track record of success, having been adds.

swarded funding by the Ontario Centres of Excallence in the form of Vouchers for E-Business in 2014-15, and Vouchers for -Business and Technology Adaption in 2015-16, Technology Adoption project ocus on technology development and esting/validation activities to support nnovation. The e-business vouchers in velopment, online sales process, digital and social media, and customer relation ship management.

"Our new website has greatly in proved overall traffic to our retail store and is a huge asset for us," notes Amy Bond, office manager with Industria Pump Solutions (industrialpumpsolu ions.com). Bond's Niagara Falls-base vation last year to enhance its e-com nerce capabilities. As Ontario's larges aftermarket and surplus pump invento ry supplier, this new easy-to-navigate e-store is essential to their business, she

"There are so many factors that are | to provide them with that competitive often affected by change, especially in ceeping up with the competition," says proprietor at Spring Manor Bed and Breakfast (springmanor.ca), "Spring Manor's website needed updating to

For each project, the Research & Inlovation team meets with the industry partners several times during the project assessing the business's needs, and proposing solutions, before implementing the right fit.

howcase our amenities and what sets

"For the past few months we have been exchanging photos and text, and the team has been training me how to manage the site on my own," says

"Every company needs a strong web esence and e-business tools to compete in today's increasingly digital world. Our research team has the right tools @NiagaraResearch and talent to work with local companies

edge," notes Marc Nantel, associate

or related business solutions for local SMEs in areas such as market research sales strategies and prospect lists. Industry partners from the advanced nanufacturing and food and beverage sectors in particular are currently being

with the Research & Innovation team may contact Kristine Canniff, industry liaison officer, at kcanniff@niagaracollege.ca, or 905.735.2211, ext. 7172. 🔘

Carolyn Mullin is the manager of Dissemination & lutreach for the Research & Innovation division of













OliV creating jobs in Niagara

Niagara College is mentioned as a key partner to the innovation and business growth strategy of OLiV, by in this company's business profile in the Niagara Advance.

COVERAGE TYPE Print, Digital FEBRUARY 2016 niagaraadvance.ca





KID'S HELP PHONE

SICK IN



and 20 part-time jobs in Niagara

OLiV has created 25 full-time



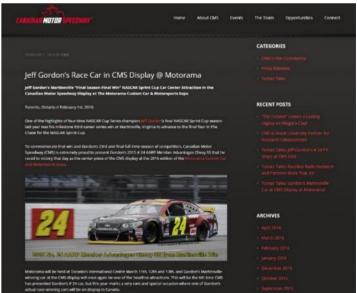
Revving up our Motorama presence

An amazing cross-promotional effort by the Recruitment, Automotive and Research & Innovation divisions of Niagara College, put our partnership with the Canadian Motor Speedway into an international spotlight, ahead of the Motorama Custom Car & Motorsports Expo in Toronto. Highlights included a blog entry on Jeff Gordon's official racing website.









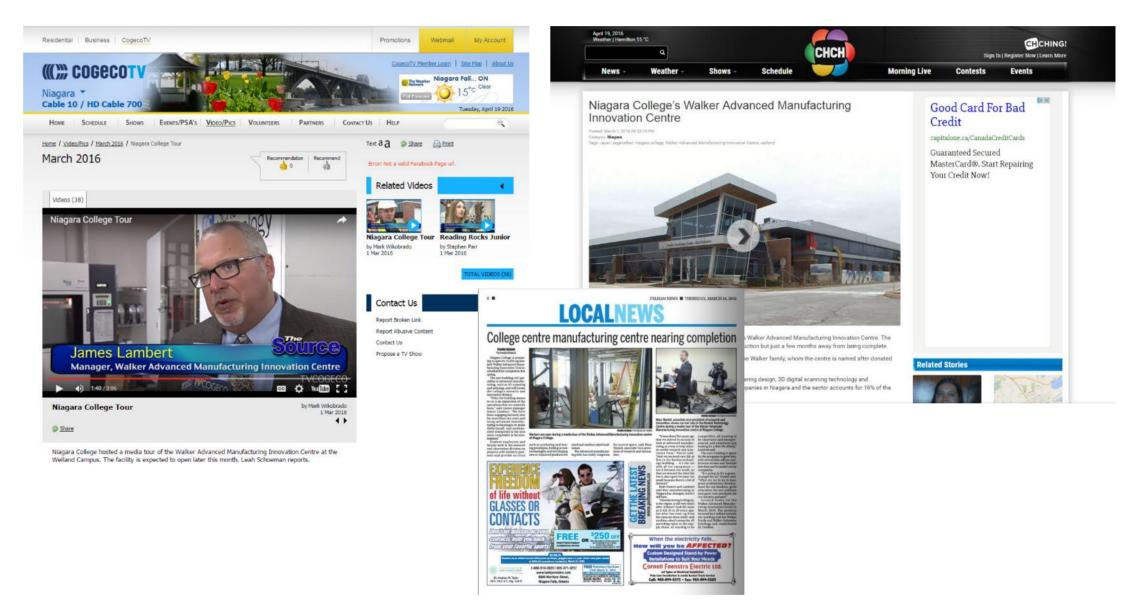
COVERAGE TYPE Digital

FEBRUARY 2016 jeffgordon.com, niagara.sportsxpress.ca, cdnmotorspeedway.com, InsideNC

Malker Advanced Manufacturing Innovation Centre

Media sneak peek

A month or so ahead of the move-in date, members of the local media were invited to tour the Walker Advanced Manufacturing Innovation Centre at the Welland Campus. The coverage included television, website and newspaper reports.



COVERAGE TYPE Television, Digital, Print

MARCH 2016 tvcogeco.com, chchnews.com, pelhamnews.ca

Malker Advanced Manufacturing Innovation Centre

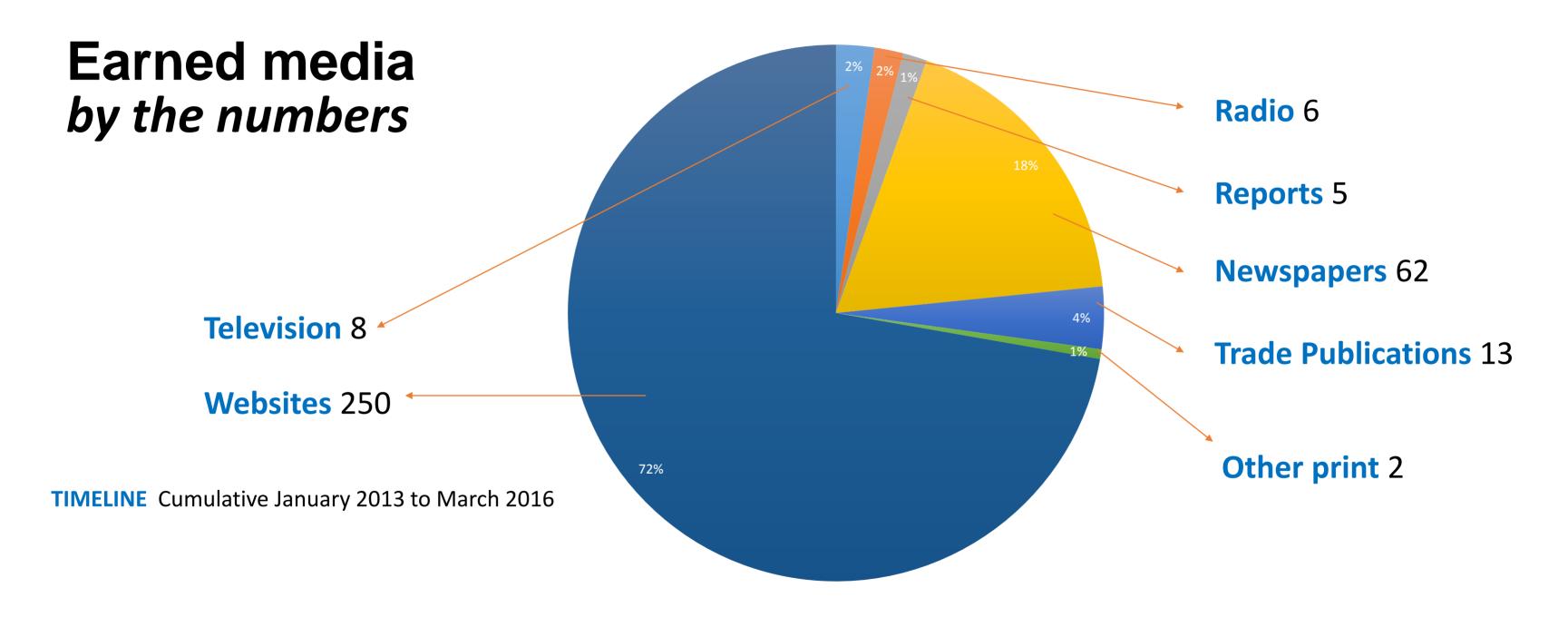
Emphasis on engineering

In honour of Engineering Week, Niagara College celebrated the role of engineers in society by hosting a public event at the Welland Campus. Niagara College's own Professor Neil Walker was the guest speaker, and the event was organized by mechanical engineering student Daniela Cortes.

COVERAGE TYPE Digital, Print

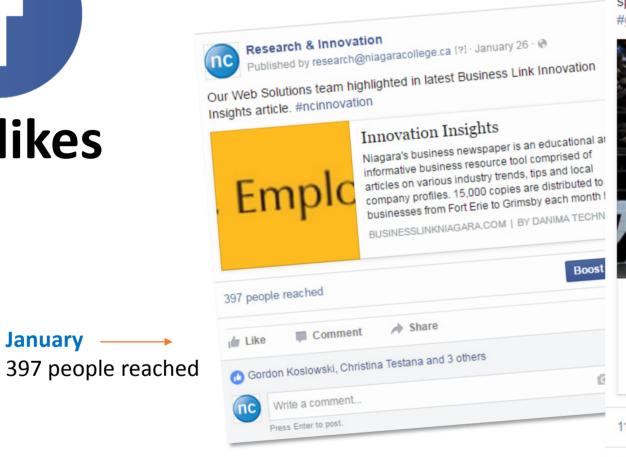
MARCH 2016 niagarathisweek.com

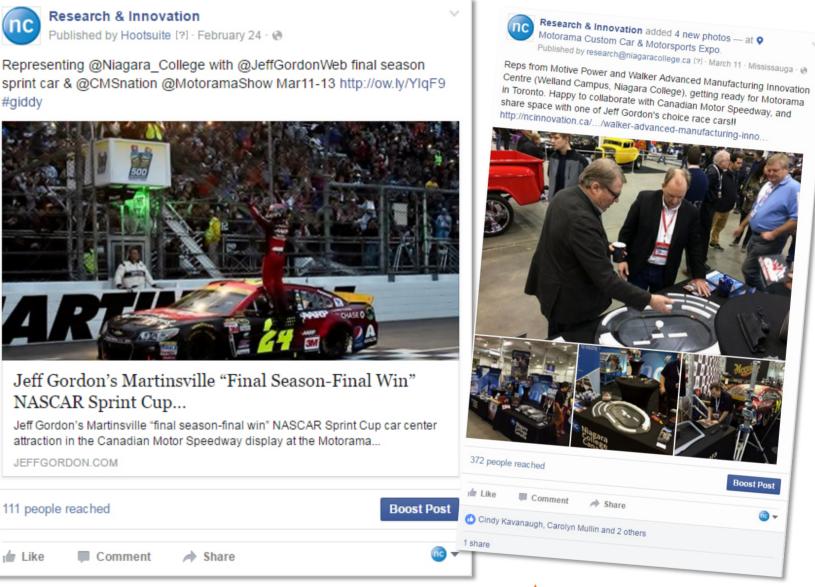












SOCIAL MEDIA: Facebook

TIMELINE As of March 2016

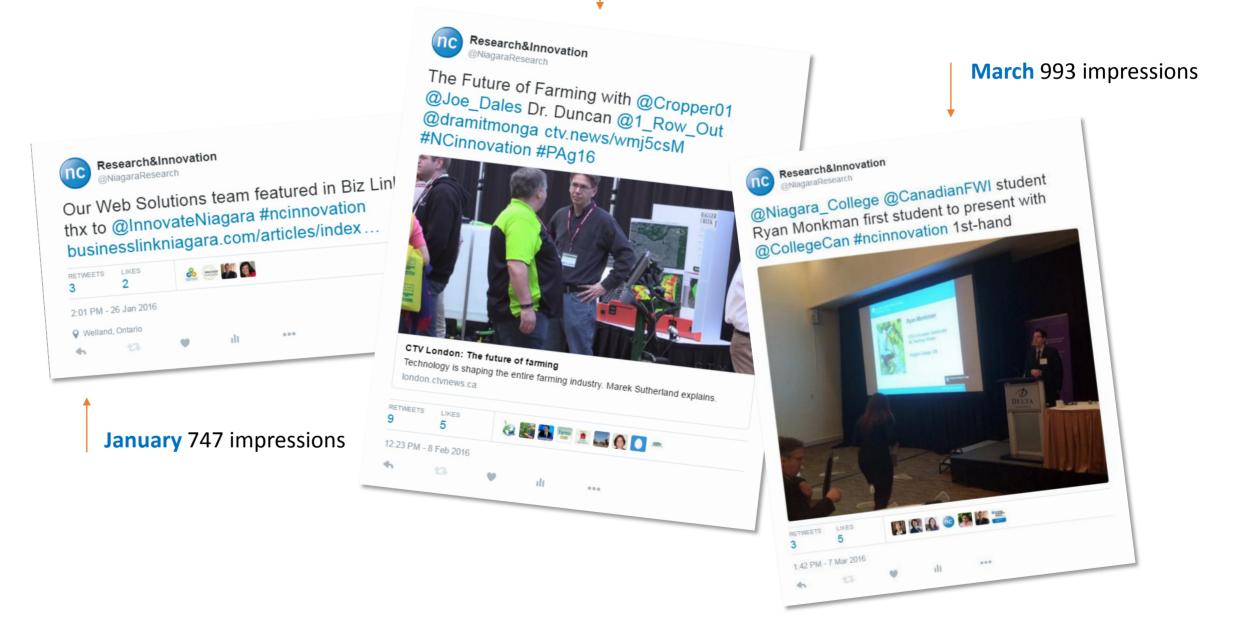
January -----

February 111 people reached

March 372 people reached







February 4,493 impressions

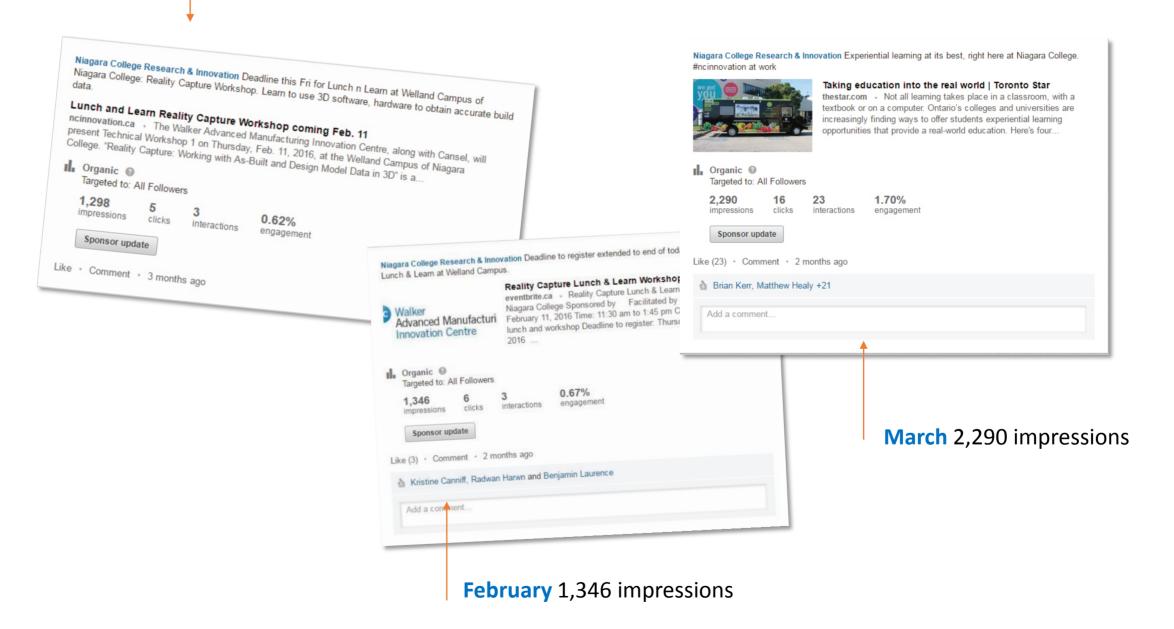
SOCIAL MEDIA: Twitter

TIMELINE As of March 2016





January 1,298 impressions



SOCIAL MEDIA: LinkedIn

TIMELINE As of March 2016



For more information visit: ncinnovation.ca

SOLUTIONS FOR INDUSTRY

Providing innovation solutions to business and industry through applied research in partnership with Niagara College faculty and students.

