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OCAD University's Imagination Catalyst: A Case Study

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Abstract

In order to provide the context for an incubator case study, this paper provides a brief overview of the support mechanisms for Canadian university-based innovation and commercialization, especially regarding government (federal, provincial, municipal). It then proceeds to describe OCAD University's specialized commercialization and incubator unit, the Imagination Catalyst, which supports talent and innovation within the cultural industries and creative entrepreneurship systems.

1. Federal Government Funding

Throughout the late 20th century, government support for university researchers was primarily focused on research itself rather than commercialization of that research.¹⁰ Federal granting councils were founded in the 1960s and 70s in three separate areas: MRC (1960) for medical research, SSHRC (1977) for research in the social sciences and humanities and NSERC (1978) for research in Natural Sciences and Engineering.¹¹ Another significant boost for research arrived in the late 1990s through the Canada Foundation for Innovation, which funds state-of-the-art research facilities and equipment and the Canada Research Chairs program, founded in 2000, which established 2,000 research professorships across eligible degree-granting institutions across Canada.¹²

These funding bodies focus primarily on support for research itself, but Canada's substantial foray into funding for commercializing university-based research, stems from a later date, 2007, when the Centres of Excellence for Commercialization and Research (CECR) program was launched.¹³ Since 2007, the CECR program has invested annually \$30 million in Canadian innovation. This program was put in place to bridge the challenging gap between innovation and commercialization by matching clusters of research expertise with the business community in order to share the knowledge and resources that bring innovations to market faster. The Centres advance research and facilitate commercialization within four priority areas: the environment; natural resources and energy; health and life sciences; and

¹⁰ For the history of the management of intellectual property resulting from publicly funded research, centralized under the crown corporation, Canadian Patents and Development limited (CPDL), see Kretz 2013.

¹¹ The predecessor of today's Canada Institutes for Health Research was founded in 1960 <<http://publications.gc.ca/collections/Collection/MR21-19-2000E.pdf>>, followed by the Social Sciences and Humanities Research Council in 1977 and the Natural Science and Engineering Research Council in 1978.

¹² Since 1997, CFI has invested a total of \$6.2B into research infrastructure (as of January 26, 2015). See,

<<http://www.innovation.ca/en/OurInvestments/ProjectsFunded/SummaryProjectsFunded>>.

¹³ <http://www.nce-rce.gc.ca/Programs-Programmes/CECR-CECR/Index_eng.asp>

information and communications technologies. These sectors align with federal and provincial research and innovation strategies and priorities.¹⁴

Emerging from the predominant trend towards the research park approach of the 1980s and 1990s, the CECR program was designed to support large scale projects. One example amongst almost two dozen active CECRs is MaRS Innovation located in downtown Toronto. MaRS Innovation has received almost \$30M through this program since its successful application in 2008.¹⁵ MaRS Innovation (MI) also receives fixed membership fees from its member institutions and has privileged access to its members' invention disclosures. The MI team conducts thorough due diligence on its market and technical potential. If they accept the disclosure, they form a deal or start-up team and manage the process of patent filing and issuance. For larger institutions with a significant number of invention disclosures, membership in MI has become a beneficial return on their investment.¹⁶

More recently, a federal program introduced in 2010, FedDev Ontario's Investing in Regional Diversification constituted a game changer for smaller institutions.¹⁷ From amongst the 40 plus postsecondary institutions in Ontario, 24 have submitted successful applications to the federal Applied Research and Commercialization Initiative that focusses on collaboration between small- and medium-sized enterprises and post-secondary institutions. OCAD University was among the two dozen Ontario institutions which were successful in the Applied Research and Commercialization Initiative. In the first round of contributions, OCAD University ranked twentieth in terms of funding provided amongst the 24 successful institutions. Based on OCAD U's success in the first round of funded projects, OCAD University moved up to 14th place amongst the two dozen competitors in the extension of that funding. In that allocation, OCAD U surpassed even large, research-intensive institutions, such as the University of Toronto, University of Ottawa, and Western University.¹⁸

2. Provincial Government Funding

At the provincial level, Ontario collaborations for the purpose of innovation amongst universities, colleges, research hospitals, and industry have been significantly strengthened through the Ontario Centres of Excellence and its funding programs.¹⁹ Established in 1987 as seven distinct centres, this program was amalgamated in 2004. Today, OCE's 40-person team of

¹⁴ For the federal and provincial innovation strategies respectively, see, [https://www.ic.gc.ca/eic/site/icgc.nsf/vwapj/Seizing_Moment_ST_I-Report-2014-eng.pdf/\\$file/Seizing_Moment_ST_I-Report-2014-eng.pdf](https://www.ic.gc.ca/eic/site/icgc.nsf/vwapj/Seizing_Moment_ST_I-Report-2014-eng.pdf/$file/Seizing_Moment_ST_I-Report-2014-eng.pdf) and <http://docs.files.ontario.ca/documents/334/ontario-innovation-agenda.pdf>.

¹⁵ <http://www.nce-rce.gc.ca/NetworksCentres-CentresReseaux/CECR-CECR_eng.asp>

¹⁶ <<http://marsinnovation.com/how-we-work/for-inventors>>

¹⁷ <<http://www.feddevontario.gc.ca/eic/site/723.nsf/eng/02110.html>>

¹⁸ <<http://www.feddevontario.gc.ca/eic/site/723.nsf/eng/00387.html>>

¹⁹ <<http://www.oce-ontario.org/about-us>>

business development managers work directly with academia and industry to bring prospective partners together. The managers help identify the needs of industry while exploring the halls and laboratories of academe to identify the latest breakthroughs from researchers. OCE's tailored programs provide significant support to commercialize innovations, transfer technologies, and develop promising talent. At OCAD University, for example, OCE invested \$143,000 into the development of industrial design graduate Henry Chong's light-weight electric bicycle. Henry's company, Revelo Electric, currently employs two full-time and three part-time people. Revelo projects hiring 20 staff over the next two years.²⁰

One of the most recent programs added to the provincial mix was the Government of Ontario's Campus-Linked Accelerator (CLA) program. In the Greater Toronto Area (GTA) alone, this program has invested over \$6.8 million to build on innovation and entrepreneurial programs at GTA colleges and universities. The CLA specifically addresses the need for developing youth entrepreneurship programs and states as a declared goal to "build the most entrepreneurial post-secondary system in North America." (Ontario 4) OCAD University submitted one of only nine winning bids towards the CLA program. It also significantly assisted staffing for the OCAD University's entrepreneurship hub, the Imagination Catalyst, and significantly expanding its programming and reach.

3. Municipal Support

The City of Toronto positions itself less as a funder of university-based commercialization or other business incubator and accelerator programs, and more as a connector, facilitator, and enabler. A recent draft strategic—"From Concept to Commercialization: A Startup Eco-System for the City of Toronto"—creates a vision in which Toronto "is the startup capital of the world, the ideal place to start and grow a business." The plan that was widely circulated amongst various stakeholders has three goals in mind:

1. Identify initiatives the City of Toronto can implement to support the start-up eco-system and establish Toronto as a global leader in supporting business formation and growth.
2. Identify key business incubation and community economic development opportunities and gaps within the start-up eco-system; and
3. Set measurable objectives and actions to be achieved over the next five years.

The City has been particularly strong in publishing feasibility studies and gathering metrics, especially sector specific data, such as for food manufacturing or art and cultural industries.²¹

²⁰ <<http://www.oce-ontario.org/our-companies/success-story/2014/10/22/revelo-electric>>

²¹ See, "Collaborating for Competitiveness," "Creative Capital Gains," and "Working as One."

4. Entrepreneurship at OCAD University

How did OCAD University, an art and design university, manage to do so well in building its entrepreneurship programming and succeed in funding competitions of the federal and provincial governments? Amongst the top three reasons stand:

- Support from the institution's senior leadership;
- a specialised talent pool; and
- distinct support mechanisms that serve a specialised sector.

OCAD University's president, Dr. Sara Diamond, and Board Chair, Robert Montgomery, were instrumental in advancing a vision for entrepreneurship programming and the necessary support mechanisms. They first hatched the idea of establishing an incubator and accelerator unit at OCAD University, called the Imagination Catalyst in 2011. Firmly anchored through top-leadership level support, initial staffing and programming for the catalyst became possible. The successful application to FedDev's applied research and commercialization (ARC) program validated the direction taken and enabled funding for first 12 and later another 18 innovation projects in collaboration with an industry partner.²²

As Canada's oldest and largest art and design university, OCAD University benefits from harbouring a specialized talent pool. The institution has a particularly strong and long history of graduates who choose self-employment as a career path. A staggering 87% of OCAD University alumni operate businesses or work as independent contractors at some point in their careers, and 17 percent of alumni have been or are currently a founder of a not-for-profit or a for-profit organization, most of them in the cultural sector, including the digital media industry. OCAD University's teaching focuses on practice-based research, that is, the combination of studio-based activities of creating, building, and constructing (in maker-spaces ranging from 3D printing to foundry, woodshop, metal-shop, and other studio spaces) and diverse forms of theoretical and scholarly types of research. In combining these two approaches to research in practice-based research, OCAD University has managed to carve out its own niche in creative industries and many other sectors from data visualisation for financial, health and other sectors to inclusively designed products and services for any sector, including information and computation technologies.

OCAD University's undergraduate and graduate programs in art, design, and technology develop student talent to enable self-employment supported through essential business learning. Whether as an industrial, graphic or environmental designer or as a practicing artist, most of our students will pursue independent careers. Specialized programs, such as OCAD U's Digital Futures program explicitly combine art, design, technology, and business learning to develop highly qualified graduates who engage in all four of these disciplines.

²² For detail, see www.ocadu.ca/research/feddev.htm.

At the end of their studies, graduates can look to OCAD University's GradEx to engage the general public as well as gallerists, businesses owners, and investors in their work. Graduating students exhibit art work or design innovation, including prototypes of products and services. This event provides ample ground for talent recognition and discovery. This year, more than 600 promising young artists and designers will exhibit at OCAD University's 100th exhibition, the biggest GradEx ever. GradEx showcases projects from each of OCAD University's programs, such as:

- Digital Futures, which engages with disruptive technologies and digital applications, products, media content, practices and services,
- Strategic Foresight and Innovation, which combines business thinking, systems thinking, design thinking, and futures thinking in order to graduate innovators who address human needs, and
- Inclusive Design, which develops design skills and techniques that ensures accessibility for the full range of human diversity, including ability, language, culture, gender and age.²³

Part of the talent A crucial factor in the development of the talent pool is also OCAD University's Digital Media Research and Innovation Institute and its 21 laboratories. It is in the laboratories that many of the ideas hatch that are waiting to be taken up by commercialization. Student talent displayed at GradEx and the research results from the DMRII labs served as the points of departure that led to the original establishment of OCAD University's Imagination Catalyst. Senior leadership recognized the need to provide particularly promising students with assistance to further their skills and provide space and time for refining innovative ideas, projects, products, and services. Art, technology, and design products and services that are ready for a life after academia now have a place to grow into a business when given the opportunity for incubation on the premises of the Imagination Catalyst. In this approach, OCAD U follows recommendations, like those made by Rasmussen, which underline the high potential for unlocking entrepreneurship results through focussing on students.²⁴

5. The Imagination Catalyst

OCAD University's entrepreneurship and commercialization hub, the Imagination Catalyst, draws on the talent pool of its students, faculty, and alumni, as well as external talent-at-large that fits the Imagination Catalyst's specific mandate. OCAD U's incubator focuses on creative industries while driving youth economic participation and impact. Specific niche industries include designed consumer goods, light advanced manufacturing, digital, and cultural enterprises. Start-ups and services focus on maker-based products, design or cultural and curatorial services, the Internet of Things, digital media, inclusive design, expanded mobile, entertainment products design and games as well as strategic foresight and innovation.

²³ For program details, see <<http://www.ocadu.ca/academics>>.

²⁴ "The most comprehensive initiatives to motivate individuals to start new ventures found in this study were entrepreneurship education programs, mainly aimed at students." (Rasmussen 206)

The Imagination Catalyst's mission is to increase the probability of return on investment and success for entrepreneurs and their investors. The Catalyst pursues six distinct goals:

i. To foster early exposure to cultural entrepreneurship and offer quality entrepreneurship and experiential learning opportunity:

Business and entrepreneurship learning opportunities for students are increasingly embedded straight into the curriculum. Given the career paths of OCAD University students with their higher than average levels of self-employment, business and entrepreneurship skills are highly desired. In addition, extra-curricular learning opportunities are being developed through support from within the portfolio of the Associate Vice-President, Students, and her team, as well as a very active campus life student group called The Grind.²⁵

ii. To provide domain-relevant, high quality and effective support for aspiring entrepreneurs:

Support systems for entrepreneurs are manifold at OCAD University. Staff of the Imagination Catalyst offer drop-in consultations. In addition, the Imagination Catalyst is working with OCAD University's Strategic Foresight and Innovation Laboratory to produce a series of video and other online resources. Finally, the Imagination Catalyst connects into resources offered through Ontario's Regional Innovation Centres, such as MaRS Discovery District's 101 Entrepreneurship series, a live and online entrepreneurship course. The live Web-feed is screened at OCAD U, drawing together internal communities locally as a pizza night social, and face-to-face discussion with the group after the screening.²⁶

iii. To develop cultural entrepreneurial leadership in local and global communities:

OCAD University engages closely with its art and design sister institutions on Canada's west and east coasts - Emily Carr University of Art + Design in Vancouver and the Nova Scotia College of Art and Design in Halifax - to develop joint initiatives. While most other incubators in Ontario offer membership across sectors (often with a strong focus on digital technology or health innovation), OCAD U's Imagination Catalyst specializes in design-led entrepreneurship boutique programming. Sectors that the Imagination Catalyst actively engages in include:

- design, cultural, and curatorial services;
- digital media;
- technologies related to the Internet of Things;
- inclusive design;

²⁵ <www.ocadu.ca/services/campus-life/student-groups.htm>

²⁶ <<http://www.marsdd.com/entrepreneurship-101>>

- expanded mobile;
- entertainment design & games;
- strategic foresight and innovation; and
- maker industries (3D printing & prototyping).

Within each of these subjects, the Imagination Catalyst offers a cross-cutting Social Enterprise stream which is enhanced by OCAD U's relationship with the Centre for Social Innovation's locations in Toronto and New York City.²⁷ The CSI's mission is to catalyze social innovation in Toronto and around the world, understanding that innovation is the key to turning local and global challenges into opportunities to improve our communities and our planet. Local partners are pulled into conversation through the Imagination Catalyst Advisory Group as well as external partnership funding opportunities. One of OCAD University's current success stories, a company called *Twenty One Toys: Toys that Teach Empathy* emerges out of this partnership with the CSI. The company has been featured at the International Council of Societies of Industrial Design and won the 2015 Multiplicity Power Up Sales Challenge.²⁸

iv. Create Jobs for Youth

Priority in OCAD U's incubator activities is to enable innovation and youth entrepreneurship in order to help youth create jobs for themselves and other youth. Since its founding, the Imagination Catalyst has incubated 25 companies. Currently, there are 18 start-up teams working in the Imagination Catalyst. These 18 small businesses currently employ 33 staff.

v. Lower risk for IC company/Product Development Investors through

- Identifying investable talent;
- Quality skills training/programming;
- Accountability & supervision; and
- Facilitating progress.

vi. To collect and share relevant data in order to enhance understanding of cultural entrepreneurship

Gathering metrics has become a key element in building the Imagination Catalyst. We are mandated, especially by our government funding partners, to report quarterly on a wide range of metrics from number of companies founded, number of jobs created, or number of patents filed, to number of external youth engaged.

6. Talent Intake

The Imagination Catalyst recruits its talent both from within the OCAD University community, from amongst its alumni, as well as in collaboration

²⁷ <<http://socialinnovation.ca>>

²⁸ <<http://twentyonetoys.com>> and <<http://multiplicityto.ca/2015/01/26/twenty-one-toys-wins-2015-multiplicity-power-sales-challenge/>>.

with external candidates whose innovation projects match OCAD U's incubation priority profile. A special programming feature is the incubator's intake competition. It has been sponsored by and held off-site on the sales floor of Umbra, a Toronto-based design and manufacturing company. OCAD University's intake competition has become an event. Thanks to an inspiring atmosphere of designed goods and furniture, an open bar and intermission entertainment provided by various community groups, the pitch competition has become a social gathering point and much appreciated "spectator sport" for invited guests as well as the competing start-up entrepreneurs, their friends, and family. The Imagination Catalyst advisory board members volunteer to serve on the adjudication committee.

Successful candidates from the annual intake of the *Take It To Market* competition are offered a one-year residency in the Imagination Catalyst incubator/accelerator. The annual intake allows for the top-10 to -15 applicants to enter. Cash prizes are awarded to the top three pitches as well as the "Diamond-in-the Rough Award" donated by OCAD U's President. In addition, the competition typically features a People's Choice Award and a separate award for best social enterprise start-up. Going forward, our annual recruitment will be enhanced to allow for a more flexible intake of talent throughout the year.

Once the potential incubatees for OCAD University's Imagination Catalyst have been identified and invited to join, unsuccessful candidates may be referred to another incubator program that will assist the development of their business idea.

7. Programming

Careful deliberation about the incoming cohort is combined with an interest in adding external talent in order to create a diverse group of start-up leaders. Each entrepreneur brings particular talents and skills to the group, a pre-requisite for the prime tenet of the incubator, the emphasis on peer-to-peer learning. On occasion, more formally structured presentations are provided by members of the cohort to their colleagues in the cohort on topics, such as "How to Efficiently Use Social Media," "The Promotional 90-Second Video," and other areas of interest. However, there are no formal classes: the cohort relies on 'Just In Time Learning.' The occasional peer-learning session for the group is complemented by daily opportunities of informal peer learning and the expectation of self-directed learning. Our focus is enhanced through arranging for formal and informal kinds of mentorship. The Imagination Catalyst leadership cultivates a mentor group from relevant industries, such as entertainment lawyers and Design firm CEO's who may offer one-on-one coaching. In addition, networks amongst the various local and regional incubators provide opportunities for cross-fertilization and shared programming. The Imagination Catalyst leadership sets out to curate and offer learning events and opportunities. In addition, OCAD U leverages the skills and experience of its full-time faculty in design and art to help coach entrepreneurs. The primary idea is to create a sense of community and individualized support for the incubator's resident start-ups.

Imagination Catalyst programming focuses on:

- Expanding business skills
- Providing access to start-up funding
- Showcasing products/companies to potential customers and investors
- Licensing or sales
- Access to OCAD U faculty and professional networks
- Access to workshops & facilities; and
- Access to start-up eco-system.

8. Resourcing and Funding

While I have already described some of the in-kind contributions, in addition to direct and indirect support from the university itself, the Imagination Catalyst offers three sources of funding for members of OCAD University's Imagination Catalyst.

a. Public Funding

Through the Province of Ontario's Campus Linked Accelerator Program, OCAD U's Imagination Catalyst received just under one million dollars over two years to ramp up its incubator programming in recognition of how OCAD U's Imagination Catalyst has carved out a niche in a busy incubator and accelerator landscape in Ontario. Project funding is available through Ontario Centres of Excellence (OCE) and their granting programs.

b. Private Funding

The Imagination Catalyst has also attracted a venture fund partner. John Albright, co-founder and managing partner of Relay Ventures, established a one million dollar investment fund as well as contributing \$100,000 in operating cost to the Imagination Catalyst. The Imagination Catalyst organizes regular pitch competitions for resident start-ups to access this investment fund reserved exclusively for OCAD U start-ups.

c. Crowd funding

In the Fall of 2013, OCAD University established a partnership with Indiegogo, an international crowdfunding Web site. Through this partnership, which offers an institutionally branded framework for crowd funding, a total of seven campaigns to date have generated over \$206,000 of revenue.²⁹

Time permitting, I will now show a short video of one of our incubated projects:

Option 1: Revelo Ultralight Electric Bicycle:

https://www.youtube.com/watch?v=qEt_fl3Gw-Y&feature=player_embedded

Option 2: The MeU:

https://www.youtube.com/watch?v=7P95JN14P_c&feature=player_embedded

Option 3: Push:

<https://www.indiegogo.com/projects/push-the-first-fitness-tracking-device-that-measures-strength>

²⁹ <<https://www.indiegogo.com/partners/OCADU>>

9. Conclusion

This case study demonstrated how a small-specialised university has been able to build a commercialization hub in the increasingly competitive environment in southern Ontario. Building on its natural advantage deriving from its stakes as a specialised art and design and creative industries-inclined talent pool, it carved out a niche that it has been able to fill with increasing success. OCAD University is actively embracing to overcome the three challenges of the entrepreneurial university that Rasmussen has identified as: “to increase the extent of commercialization, to visualize the contribution to economic development, and to manage the relationship between commercialization and other core activities.” (518)

10. Bibliography

- Association of Universities and Colleges of Canada. Toward Stronger innovation Systems: Lessons from AUCC’s Innovation Policy Dialogue. Ottawa: AUCC, 2014.
- Bray, M.J. and J.N. Lee. “University revenues from technology transfer: licensing fees vs. equity positions.” Journal of Business Venturing 15.5-6 (2000): 385-392.
- Canada. Seizing Canada’s Moment: Moving Forward in Science, Technology, and Innovation 2014. Ottawa: Minister of Industry, 2014. Accessed at <[https://www.ic.gc.ca/eic/site/icgc.nsf/vwapj/Seizing_Moment_ST_I-Report-2014-eng.pdf/\\$file/Seizing_Moment_ST_I-Report-2014-eng.pdf](https://www.ic.gc.ca/eic/site/icgc.nsf/vwapj/Seizing_Moment_ST_I-Report-2014-eng.pdf/$file/Seizing_Moment_ST_I-Report-2014-eng.pdf)>
- City of Toronto. Collaborating for Competitiveness: A Strategic Plan for Accelerating Economic Growth and Job Creation in Toronto. Toronto, January 2013. Accessed at <http://www1.toronto.ca/static_files/economic_development_and_culture/docs/Collaborating_for_Competitiveness_FINAL-v7.pdf>.
- . Creative Capital Gains: An Action Plan for Toronto. Toronto: Arts Council, January 2011. Accessed at <<http://www.torontoartscouncil.org/TAC/media/tac/Reports%20and%20Resources/City%20of%20Toronto/Creative-Capital-Gains.pdf>>.
- . From Concept to Commercialization: A Startup Eco-System Strategy for the City of Toronto. Consultation draft circulated February 2015.
- . Working as One: A Workforce Development Strategy for Toronto. Toronto, February 2012. Accessed at <http://www1.toronto.ca/city_of_toronto/employment_and_social_services/elmi/research_and_data/strategic_plans_economic_development_initiatives/files/pdf/WorkingAsOne.pdf>.
- Etzkowitz, Henry and Loet Leydesdorff. Universities and the Global Knowledge Economy: A Triple Helix of University-Industry-Government Relations. London: Pinter, 1997.
- Gregory, W.E. and T.P. Sheahan. “Technology transfer by spin-off companies versus licensing” in Ed. A. Brett, D.V. Gibson, R.W. Smilor. University Spin-off Companies. New York: Rowman and Littlefield, 1991. 133-152.
- Klofsten, M. and D Jones-Evans. “Comparing Academic Entrepreneurship in Europe: the Case of Sweden and Ireland.” Small Business Economics 14.4 (2000): 299-309.

- Kretz, Andrew. "Inventions for Industry Canadian Patent and Development Limited and the Commercialization of University Research in Canada." Scientia Canadensis 36.2 (2013): 1-36.
- Lerner, Josh. "The University and the Start-Up: Lessons from the Past Two Decades." Journal of Technology Transfer 30 (2005): 49-56.
- Loebel, Holger. Mario Geissler, et al. "Take 'em in: Embedded Business Support to overcome critical junctures in academic spin-off teams." Conway, Arkansas: Small Business Advancement National Center, n.d.
- Markusen, Ann. How Cities Can Nurture Cultural Entrepreneurs. Kansas City: Ewing Marion Kaufmann Foundation, 2013.
- Miles, Ian and Lawrence Green. Hidden Innovation in the Creative Industries. Research Report National Endowment for Science, Technology and the Arts, 2008. Accessed at http://www.nesta.org.uk/sites/default/files/hidden_innovation_creative_industries_report.pdf
- Ontario. Seizing Global Opportunities: Ontario's Innovation Agenda. Toronto: Ministry of Research and Innovation, 2013. Accessed at <http://docs.files.ontario.ca/documents/334/ontario-innovation-agenda.pdf>.
- Rahal, Ahmad D. and Luis C Rabelo, "Assessment framework for the Evaluation and prioritization of university Inventions for Licensing and Commercialization." Engineering Management Journal 18.4 (2006): 28-36.
- Rasmussen, Einar; Øysetin Moen, and Magnus Gulbrandsen. "Initiatives to promote commercialization of university knowledge." Technovation 26 (2006): 518-533.
- Rogers, E.M. et al. "Lessons Learned about Technology Transfer." Technovation 21.4 (2001): 253-261.
- Sá, Creso; Andrew Kretz, and Kristjan Sigurdson., The State of Entrepreneurship Education in Ontario's Colleges and Universities. Toronto: Higher Education Quality Council of Ontario, 2014.
- Tucker, J. Marion, Denise R. Dunlap and John H. Friar. "The University Entrepreneur: a census and survey of attributes and outcomes." R&D Management 42.5 (2012) 401-419.