



Focus On: Graduate Skills Shaping Strategy

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AGENDA

- Context
- Changing Performance Metrics
- Skill Gaps
- Inclusive Innovation
- Conclusions

CONTEXT

	Scotland	Ontario
Population	~5.4 million	~14 million
Unemployment Rate	3.2% (16 years +)	6% (15 years +)
# of Universities	19	21
# of Colleges	26	24
% Having post-secondary credentials	49%	63%
Students enrolled	247,110 university students (2017/18)	515,000 university students
University Spending	£3.5B university income 2014/15	£2.0 B (2018/19) funding for universities plus loans (£590m) plus tuition £2B tuition +/- £1B colleges plus training

CHANGING PERFORMANCE METRICS

Strategic Mandate Agreements (2015)

The overarching goals for postsecondary education transformation in Ontario are to:

- Support student success and access to a high quality Ontario postsecondary education;
- Increase the global competitiveness of Ontario's postsecondary education;
- Build on and help focus the well-established strengths of Ontario colleges and universities while avoiding unnecessary duplication; and
- Maintain an efficient and financially sustainable postsecondary education system

Comparison of Ontario Institutions

UNIVERSITY OF TORONTO Founded in 1827		RYERSON UNIVERSITY Previously a polytechnic Became a University in 1999	
Undergraduate Students	71,523	Undergraduate Students	35,961
Graduate Students	18,554	Graduate Students	2,624
Continuing Education		Continuing Education	67,619
International Students	17,322 (22%)	International Students	1,885 (4.9%)
Budget	\$ 2.47 B	Budget	\$ 580 M
Cost per student	\$ 27,421	Cost per student	\$ 15,032
Endowment	\$ 2.54 B	Endowment	\$ 106.3 M

UNIVERSITY OF TORONTO		RYERSON UNIVERSITY	
Tri-council funding (total and share by council)	Top Ontario university	Tri-council funding (total and share by council)	0.5% – 4.0%
Number of papers (total and per full-time faculty)	Top Ontario university	Number of papers (per full-time faculty)	0.5-1.5
Number of citations (total and per paper)	Top Ontario university	Number of citations (per paper)	3.0-6.0
Institution-Specific Metrics			
Highly-cited researchers – 3 year average	Top Ontario university	Invention disclosures	40-70
International honours - % of Ontario faculty recipients	Top Ontario university	Number of creative outputs	120-160
National honours - % of Ontario faculty recipients	Top Ontario university	Industry and other non-government funding	\$9M-\$15M
Global rankings performance (Average of overall ranks)	Top Ontario university		6

UNIVERSITY OF TORONTO		RYERSON UNIVERSITY	
Composite score on National Survey of Student Engagement questions related to gains in learning outcomes	≥ Ontario mean	Composite score on National Survey of Student Engagement questions related to gains in learning outcomes	2.5-3.0
Proportion of programs with explicit curriculum maps and articulation of learning outcomes	25%	Proportion of programs with explicit curriculum maps and articulation of learning outcomes	65-80%
Graduation rate	≥ Ontario mean	Graduation rate	68-72%
Institution-Specific Metrics			
Undergraduate research experience with a faculty member (NSSE)	≥ U6 university mean	Online learning registrations in credit courses	17,000-20,000
Practicum experience for professional masters students (CGPSS)	≥ U6 university mean	Registrants in teaching and learning professional development activities	1,200-1,600

Shifting Terrain for Universities

Use Graduate Outcomes to Help Plan Your Future

- How many students successfully graduate from university? Do university graduates find jobs? How many OSAP recipients received repayment assistance or defaulted? Reports compiled from the annual Ontario University Graduate Survey can help you choose a school, a major or a future career.
- Use the drop-down menu below to find out how students have done in programs and universities across Ontario. You can:
 - Choose from 26 types of university programs
 - Link to charts showing students' graduation, employment and loan default rates
 - Learn how many students in each type of program found part-time or full-time work
 - See the types of jobs they found
 - See the average salaries they earned

SKILLS GAPS

Survey employers found that 28 % of SMEs and 31 % of large employers face challenges recruiting recent graduates



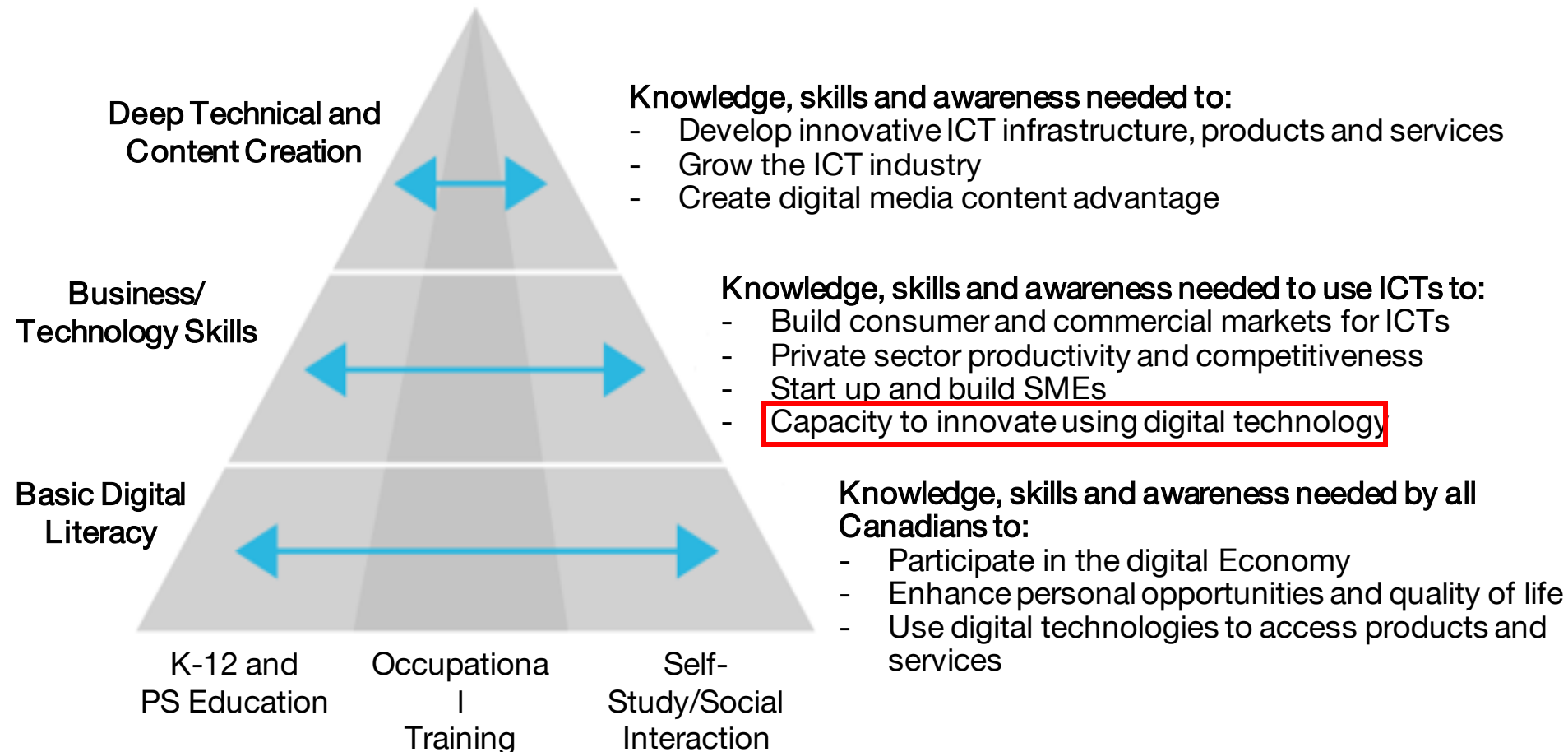
Student Perception

93% believe they are highly proficient in writing, 91% in oral communication

Employer Perception

39.4% believe recent graduates are highly proficient in writing, 47% in oral communication

Understanding Gap: What are Digital Skills?



STEM is necessary but insufficient



In Canada Diverse Groups face additional barriers

- Decline in women's representation in the Commercial Sector, little progress in Engineering, but better representation of women in “hybrid” programs
- People with “foreign sounding” last names 30% less likely to be called for a job interview
- University graduates with a severe disability have same poor employment outcomes as Highschool drop-outs
- Socio-economic status can also present a significant barrier including lack of or poor social capital.
- Indigenous youth, the fastest growing segment of the population, face the worst education and work outcomes.

Microsoft believes that lessons from a liberal arts education are necessary for the proper development of AI. Justin Sullivan/Getty Images

- In their new book "The Future Computed," Microsoft president Brad Smith and EVP of AI and research Harry Shum discuss the future of artificial intelligence.
- They argue that one of "the most important conclusions" they drew was the need for more liberal arts majors in tech.

BUSINESS INSIDER



INCLUSIVE INNOVATION: NEW APPROACHES

- Changes to curriculum and structures (e.g. more applied learning and research, internships, cooperative education)
- Massive investments from the federal government : \$800 M in subsidies for Work Integrated Learning
- International exchanges and experience
- Support for student and youth entrepreneurship and innovation
- Shift from credentials to competencies- Badging
- Career advising and pathfinding
- Social capital, mentorship and sponsorship

Applied Research Projects: MITACs, Engage



Growing Entrepreneurs

*“You can’t learn surfing from a textbook”
– Lazaridis*

AWARENESS

Workshops
Events

ENGAGEMENT

Competitions

SKILLS DEVELOPMENT

Courses
Case Studies
Projects

APPLICATION Business Plans

EXECUTION

Internships
Zones

ACCELERATION

Financing
Growth
Sustainability

Ryerson Innovation Zones



- DMZ
- Fashion Zone
- Transmedia Zone
- Design Fabrication Zone
- Centre for Urban Energy
- Social Ventures
- Legal Innovation Zone
- Launch Zone
- Biomedical Zone

Social Innovation: The UN Sustainable Development Goals



Alternative Pathways: e.g. Advanced Digital and Professional Training (ADaPT) Program



Arts grads into
real estate, tech
startups and
financial
services



Internationally educated professionals
transition into tech employment

- More than 500 participants from 20 institutions
- 89% of those who completed the training were placed in the workplace
- 4% of them started their own business
- Skills improvement across diverse measures

Harnessing new tools and approaches

ADaPT-ICTS

Advanced Digital and Professional Training



npower

isans | Immigrant Services
Association of Nova Scotia

coursera

Udemy



lynda.com

LinkedIn

FIRE
SPIRIT

Singularity
UNIVERSITY

Canadian Council for
ABORIGINAL
BUSINESS

WCM
WOMEN IN CAPITAL MARKETS



**#MOVE
THE
DIAL**

Khan Academy

10KCOFFEES



aws training and
certification

triec
Toronto Region Immigrant
Employment Council
Diversity Drives Success

**P2
PU**

edX

nexusBC
Community Resource Centre

Get real-time advice

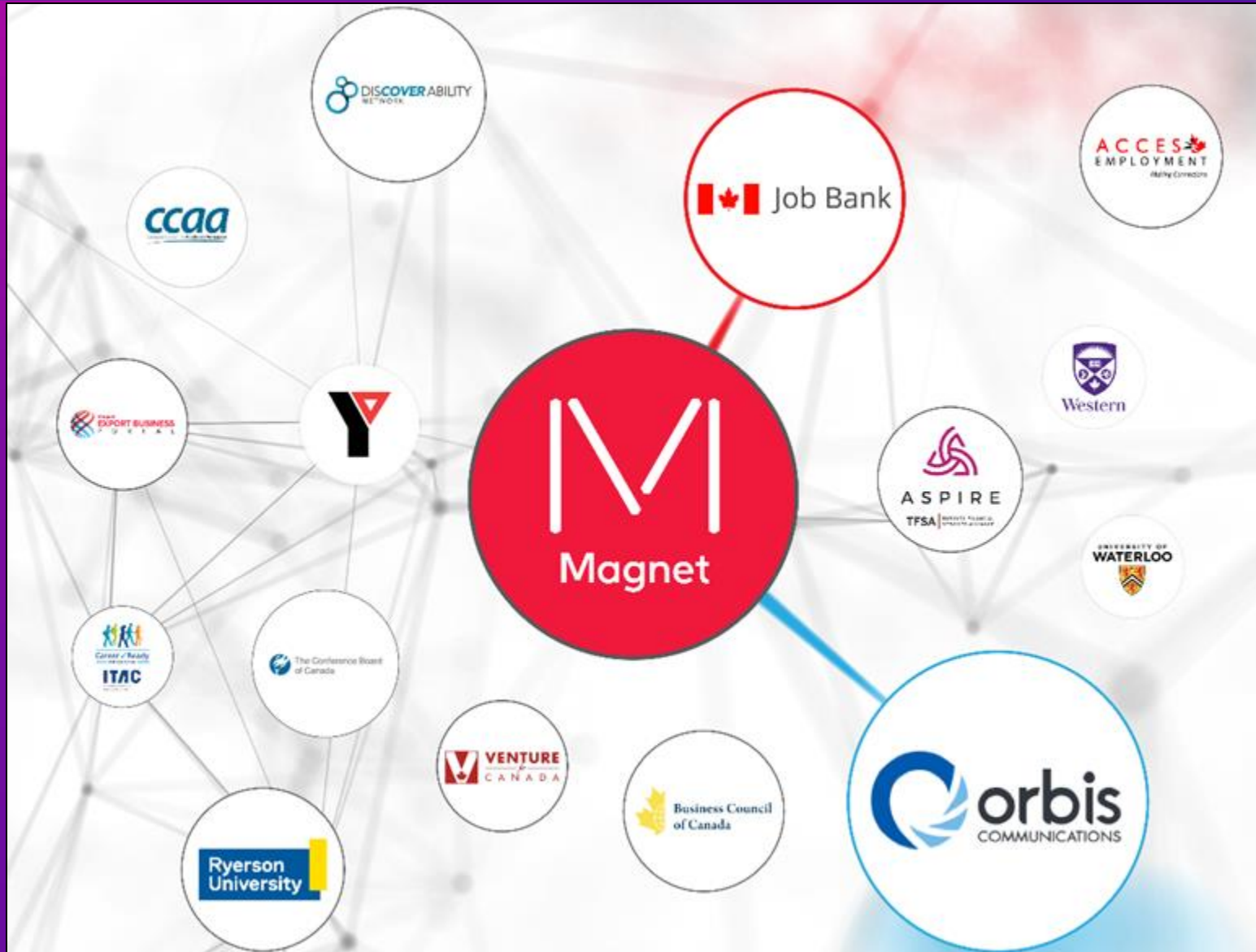
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Link Platforms and Partners to Customized and Integrated Approaches



New narratives: Talent and inclusion as Canada's global advantage

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Enabling one million jobs



YOUR
DREAM
CAREER
AWAITS

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JOURNEY
EXHIBITION

#INDIGENOMICS

IT IS TIME

For a 100 billion dollar
Indigenous economy!

Who wants to play Indigenomics?

indigenomicsinstitute.com

Forbes

ADHD: The
Entrepreneur's
Superpower

CONCLUSION: End 500 years of cultural warfare

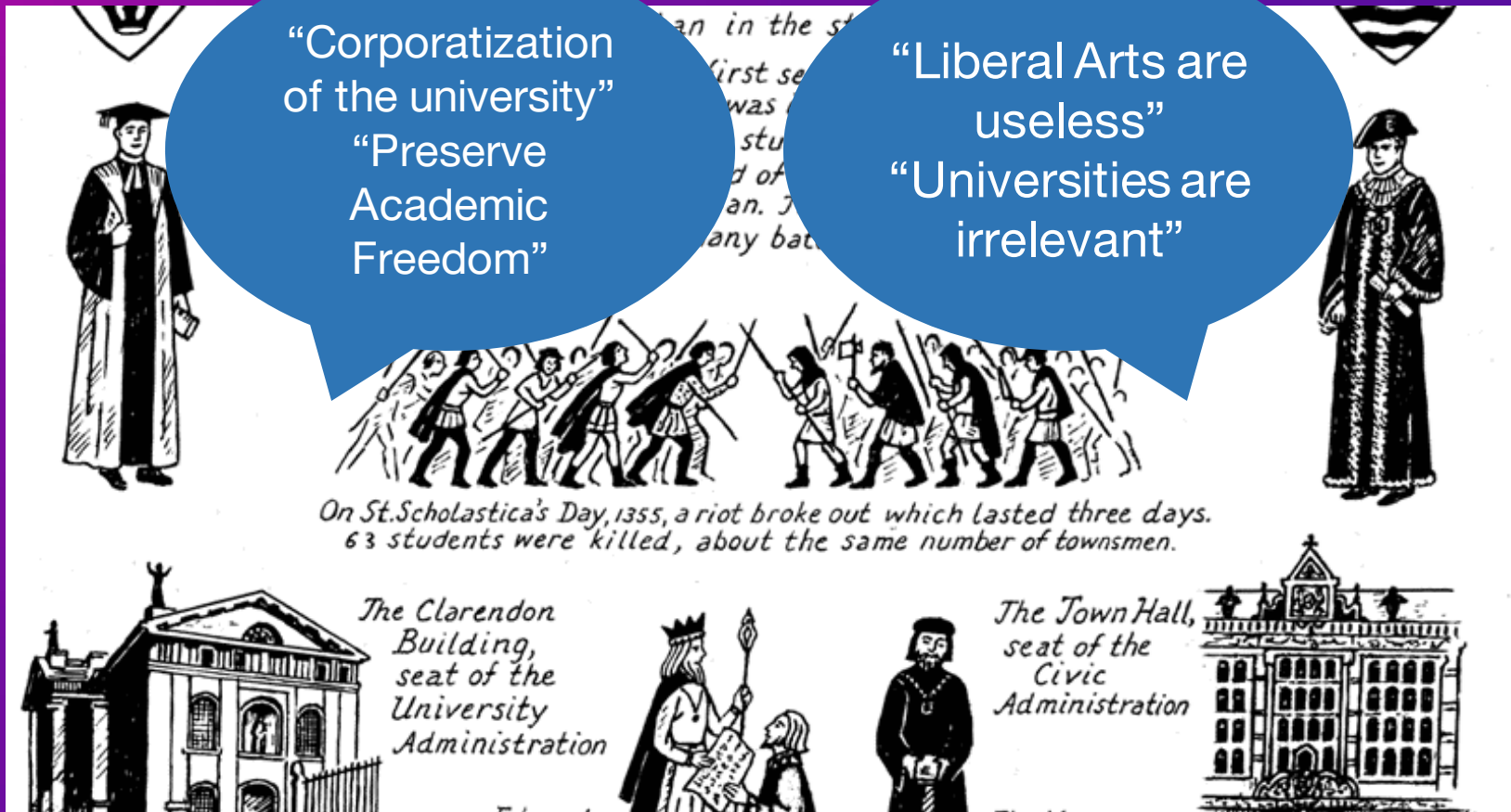
KNOWLEDGE

VERSUS

THE ECONOMY

“Corporatization
of the university”
“Preserve
Academic
Freedom”

“Liberal Arts are
useless”
“Universities are
irrelevant”



Future Skills Centre (\$250m/5 years): What Works?

ACTIVITIES

- Develop and maintain pan-Canadian stakeholder network
- Conduct research on future skills needs
- Select and fund projects
- Evaluation
- Knowledge dissemination and mobilization

RESULTS

- Better knowledge of trends and skills needed for the future
- Know what works through identifying, developing and testing innovative practices

LONG TERM IMPACT

- Effective practices are disseminated and inform policy, program and funding decisions
- Service providers and employers collaborate and adopt effective practices
- More inclusive and responsive career development approaches
- Canadians understand the skills needed and how to get them
- Improved access to high quality training
- Reduced fragmentation, improved coordination and performance of the skills training ecosystem

thank you



DiVERSITY
INSTITUTE

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