A little BIT of success: the power of collaboration
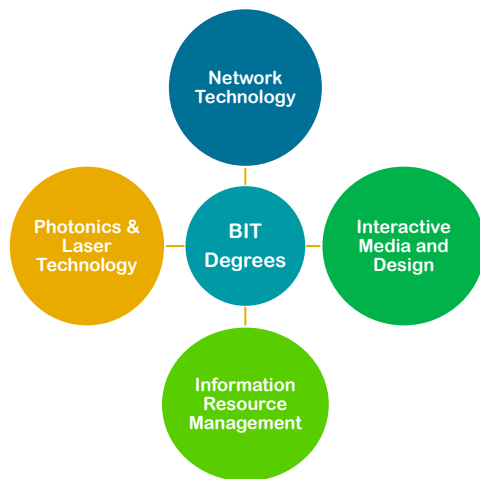

bit
BACHELOR OF INFORMATION TECHNOLOGY

Rebecca Trueman PhD
Chair, Applied Science and Environmental Technology
Algonquin College

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What Happens Online in 60 Seconds?
Managing Content Shock in 2017

- Network Technology
- BIT Degrees
- Interactive Media and Design
- Photonics & Laser Technology
- Information Resource Management

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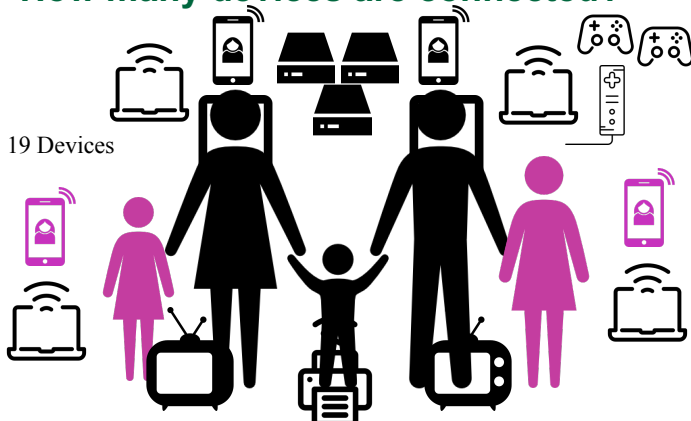## Goal of our programs

- Support students to:
  - Gain an education credentials
  - Applied training
  - Get work experience
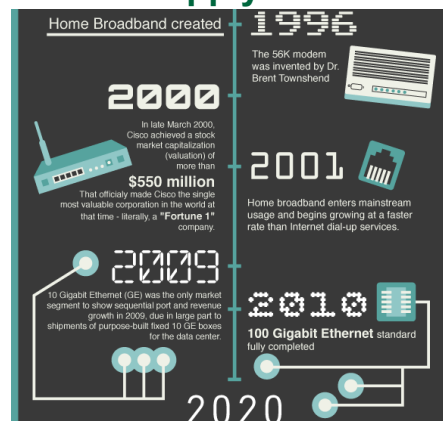 - Foster curiosity
  - Complete research
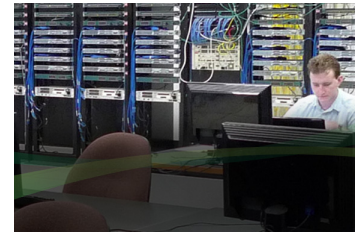
Prepare graduates for the workforce

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How many devices are connected?

19 Devices

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Supply continues to grow

We are trying for 1 Terabit Ethernet over optical fiber

(1 trillion bits/ sec)

by 2020

BIT-NET
&
BIT-PLT

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What is Photonics?

- **Photonics is the science and technology of generating, controlling, and detecting photons, which are particles of light. Photonics underpins technologies of daily life from smartphones to laptops to the Internet to medical instruments to lighting technology.**
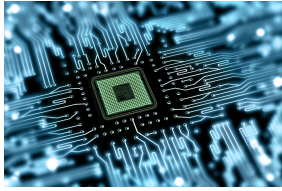
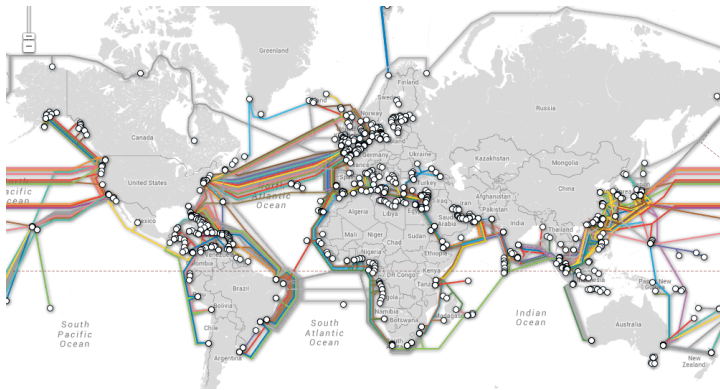## Fast data and global fiber optic cable

- Everything is wired and global
  - i.e. ROTACS- A 15,600 km fiber optics cable (via the Canadian Arctic) that links the UK and Japan.
  - Shave 62 milliseconds off the present latency between London and Tokyo

All of these photonics networks are international endeavours
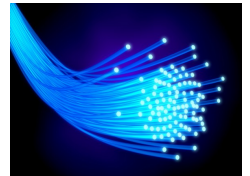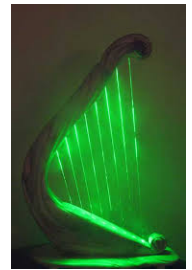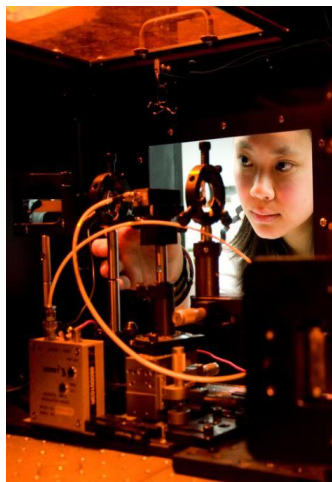

BIT-PLT

- These students spend 2 days/week at Algonquin and 3 days at Carleton University.
- Our students work with state of the art, multi-million dollar labs to enhance their applied learning experience.
- Students have the option to complete co-op opportunities, applied research and contribute to academic research.
- **Program trailer https://www.youtube.com/watch?v=It Y4HMdUPtl**

Bachelor Information Technology Photonics & Laser Technology (BIT-PLT)

- 100% co-op
- 100% graduate employment rate

Bachelor of Information Technology Networking Technology (BIT-NET)

- The NET program is focused on the design, installation, operation and management of future complex information networks.
- Students move from design, installation and operations of advanced IT networks to reconfiguring networks to meet users' needs.
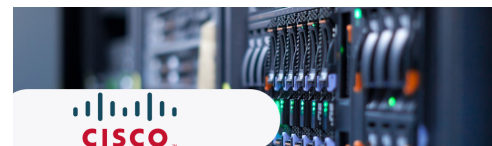
Why join forces with Algonquin?

Algonquin College:

- ☐ Hands-on training
- ☐ Has an excellent reputation and track record in the teaching of new technologies.
- ☐ Cisco Network Academy certification courses
  - ■ Cisco Certified Network Associate
  - ■ Cisco Certified Network Professional
  - ■ These Cisco certifications have worldwide recognition.
  - ■ Employers view these certifications as proof of expertise and are viewed as a huge asset
- ☐ Enjoy strong ties to industry (more practical).

2017 Skills Gold for BIT-NET

- Charles Brosseau (BIT-NET) won gold in "IT – Network Systems Administration" competition, he also scored the highest mark in all Technology competitions.
- Next week he will compete in the Skills Canada National Competition

CSR Program: Cisco Networking Academy Dream Team
Providing hands-on opportunities for students and value for businesses

2017 Award

Award Winning

- BIT-NET student Raman Poply, just won a place on the 2017 Cisco Live Dream Team (global competition).
- Members of this 10 student team will work hands-on with industry professionals for a week to deploy and support a Network Operations Center (NOC) for the 4-day Cisco Live event in Las Vegas, which is expected to attract 26,000 attendees.

1st Across North America in 2015
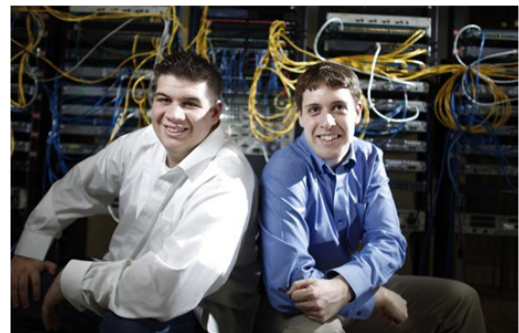
Brian Wilson, left, and Carl Verge are third-year students at Algonquin College who just won an international computer networking competition, and as a result are headed to San Jose, California for a week with the winners from other countries to see Cisco Systems Inc. headquarters.

2nd and 3rd Across North America in 2015

Latest News

NET Student wins 2nd Place in CCNA Netriders
Craig Labute, a 3rd year BIT-NET student, has earned 2nd place in the Cisco Networking Academy's CCNA level NetRiders competition for 2015. Craig receives a Cisco Certification voucher and is headed to Cisco headquarters in San Jose, CA, January 2016, for an all-expenses paid Study Trip to meet company executives and engineers

March 27th, 2015

NET Student Heads to CISCO, after placing in top 3
Carleton University's Phil Vatcher, a fourth-year student in the Network Technology (BIT-NET), recently returned from a trip to San Jose, CA. after placing among the top three in Cisco Systems' annual NetRiders Competition in May 2014

February 15th, 2015

BIT-NET graduates employed at:

- Royal Canadian Mounted Police (RCMP)
- National Defense
- Statistics Canada
- Citizenship and Immigration Canada
- Health Canada
- Financial Transaction and Reports Analysis Centre of Canada
- Department of Justice
- Bell
- Ericsson
- IBM
- RIM
- Nokia

Bachelor Information Technology
Information Resource Management (BIT-IRM)

Financial Analytics
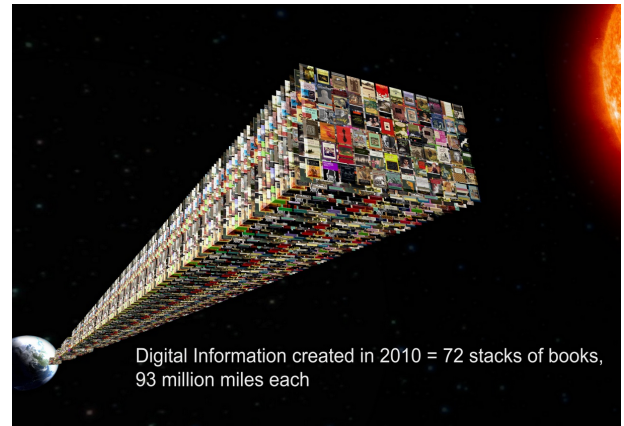
Agriculture and Life Sciences

Oil & Gas

Business Intelligence

Gov't, Military & Law Enforcement

E-Health

Digital Information created in 2010 = 72 stacks of books, 93 million miles each

IDC study: In 2010 the amount of digital information created equal to 72 stacks of books reaching from the earth to the sun.
http://www.businesswire.com/multimedia/google/20070306005424/en/1419357/Groundbreaking-Study-Forecasts-Staggering-988-Billion-Gigabytes

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Bachelor Information Technology
Interactive Media and Design (BIT-IMD)

- The IMD program provides multidisciplinary education in diverse, yet connected, subject matter such as:
  - computer animation and video effects,
  - game design and development,
  - virtual reality systems,
  - graphic design,
  - 3D visualization,
  - human computer interaction (HCI)
  - electronic commerce.

Bachelor Information Technology
Interactive Media and Design (BIT-IMD)

- IMD is for artistically creative and technologically adept students who have a keen interest in designing the next generation of multimedia rich applications and products

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## Ottawa-based Mobile and Web Applications

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Computer / Video Games

Game Job Hunter

"The Ottawa video game industry is quickly becoming an indie scene to watch…As more and more indie studios have popped up over the last few years, including Snowed In Studios, Glitchsoft, RocketOwl and Arctic Empire, there is a growing sense of innovation and collaboration pushing the scene forward..

Quality post-secondary options – such the Bachelor of Information Technology joint program through Carleton University and Algonquin College, and Algonquin's Game Development program – help supply companies with emerging talent.
http://gamejobhunter.com/blog/local-video-game-companies-ottawa/
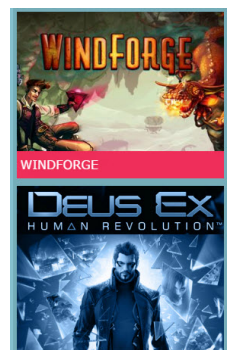
One of the IMD senior projects from this year

Night of Noir - BIT IMD Film

- https://www.youtube.com/watch?v=adFdaM5yVds

We've had more than a little BIT of success!

- Shared responsibility for educational quality
- Robust programming
- Applied Learning
- Rooted in Industry

www.bitdegree.ca