

#### **MEMORANDUM**

To: Barbara H. Eccles, Secretary of Senate

From: Apichart Linhananta - Chair, Senate Academic Information Technologies

Committee

Senate Meeting Date: November 28, 2016

Subject: Senate Academic Information Technologies Committee

The Senate Academic Information Technologies Committee (SAITC) met on November 21<sup>st</sup>, 2016 to discuss the results of the Technology Implementation Questionnaire (TIQ). The complete data summary is attached. The data shows that the most essential technologies for teaching are Internet connection for teachers, projectors, writing boards, and document cameras. Many respondents expressed a desire for training to new systems, such as interactive board, and to learn how to use exiting technology better.

There were 208 responses, and about 40% of the responses indicate that the technologies in the classrooms are **inadequate**. This ranges from 80% dissatisfaction for the Braun building to 100% satisfaction of the technology available for teaching at the PACI. The most common complaints are: unreliable equipment, for example, slow computers and defective document cameras; lack of technical support; and poor classroom design.

The members of SAITC recommend that the Internet and wifi infrastructure are improved, old and unreliable equipment (computers,...) are replaced or updated, technical support is increased, and technical training are readily available for professors and lecturers. In addition, there should be consultations with professors and lecturers when new classrooms are designed or renovated.

Apichart Linhananta, Chair of SAITC

# Results of the Technology Implementation Questionnaire

A report by the Senate Academic Information Technology Committee (SAITC) of Lakehead University

Prepared 1 September 2016

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#### Summary

#### Introduction

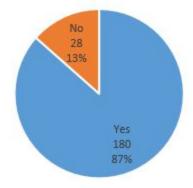
This survey was part of a study conducted by the Senate Academic Information Technologies Committee (SAITC) at Lakehead University in response to inquiries from the Technology Services Centre regarding the technology that would best enhance faculty members teaching experiences in the classroom. The questionnaire was developed to gain an accurate understanding surrounding the reasons why faculty do or do not integrate digital technology in their classes. Knowledge gained from this survey will be used to assist in determining a need to expand existing technologies and services and identify where new technologies and services may be needed.

This research was conducted in 2016. The survey was launched on February 2, 2016 through an email sent directly to all faculty, sessionals and deans through Institutional Planning & Analysis. Weekly Communications Bulletins were distributed beginning February 9, 2016 through to the final survey completion deadline of April 4, 2016. Data was collected via online questionnaire. The survey targeted instructors who taught in a physical classroom (excluding those who teach purely online)

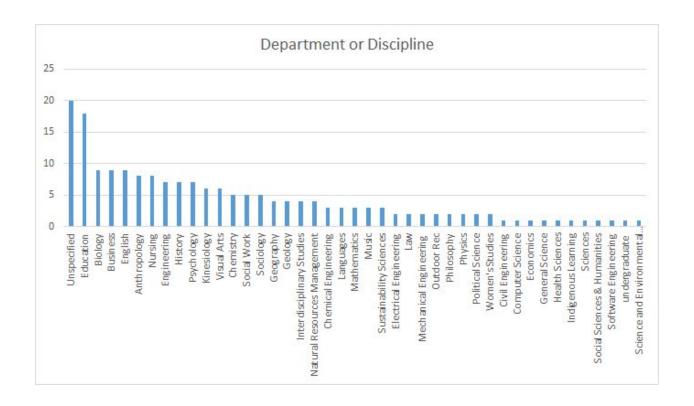
#### Participants and Description of the Sample

The self-selected sample includes responses from 208 of Lakehead University's faculty, excluding responses that were incomplete. Of these, 28 (13.4%) were from faculty members that do not teach in a physical classroom, and we did not analyze responses from these faculty.

Do you teach in a physical classroom (i.e., as opposed to teaching an online class)?



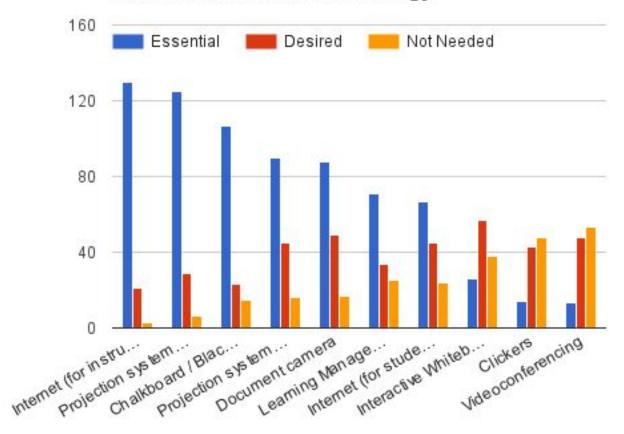
The rest of the analysis focuses on the 180 faculty members that teach in a physical classroom (ie they have answered "yes" to the first question). Seven of the responses indicated that the participant teaches in two departments, therefore they were counted in each of the categories. The faculties with the top number of responses were Unspecified (20), Education (18), Biology (9), Business (9), English (9), Anthropology (8) and Nursing (8). The complete statistics are in the Appendix A.



#### Overall Importance of Technology

Participants were asked the following question: "If you were able to choose the technologies available for classroom instruction, please indicate the importance of the following technologies", and provided a list of technologies. They were asked to rate each technology as either "Not Needed", "Desired" or "Essential". The top technologies rated "Essential" were "Internet (for instructor)" (130), "Projection system with connected computer" (125) and "Chalkboard / Blackboard / Whiteboard" (107).

#### Desired Classroom Technology



Technology	Essential	Desired	Not Needed
Internet (for instructor)	130	21	3
Projection system with connected computer	125	29	6
Chalkboard / Blackboard / Whiteboard	107	23	15
Projection system that can be hooked up to personal computer / tablet / mobile			
device	90	45	16
Document camera	88	49	17
Learning Management System (e.g. D2L)	71	34	25

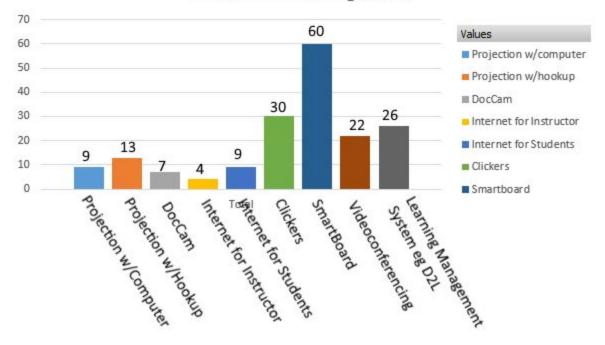
Internet (for students)	67	45	24
Interactive Whiteboard (e.g.Smartboard)	26	57	38
Clickers	14	43	48
Videoconferencing	13	48	53

Participants were also given the option to specify technologies that were not on this list. The complete results are displayed in Appendix B. Of note was a high number of mentions for quantitative software packages (19) such as SPSS, SAS, STATA or R.

#### Desire for Training

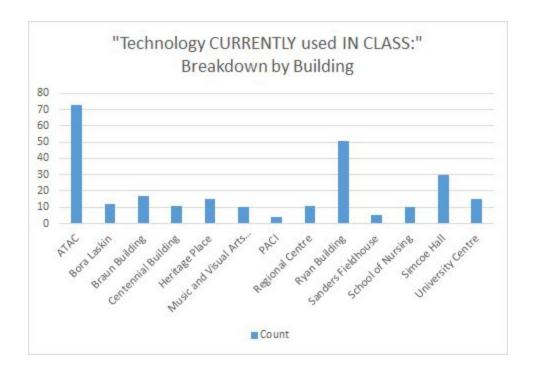
Participants were asked to indicate areas that they would like to receive training. Smartboard training (60) received the highest response.

"Please indicate which technologies you would you be most interested in learning about."

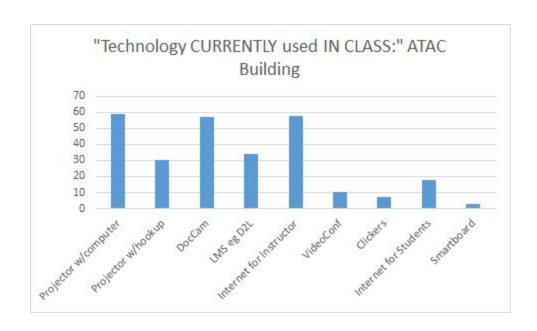


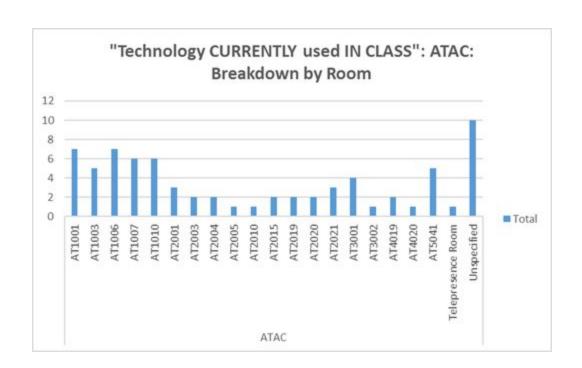
#### **Buildings and Classrooms**

Faculty were asked what technology they currently use in their classes. They were given the option to specify up to three classrooms that they teach in, as well as the technology specified in each of these classrooms. The responses were predominantly from the ATAC (73), Ryan Building (51) and Simcoe Hall (30). Details as per what technologies are used in 5 responses were eliminated, as it was undetermined where the participants were indicating. All answers and a room-by-room breakdown is provided in Appendix C. Further detailed analysis for each of the buildings follow.

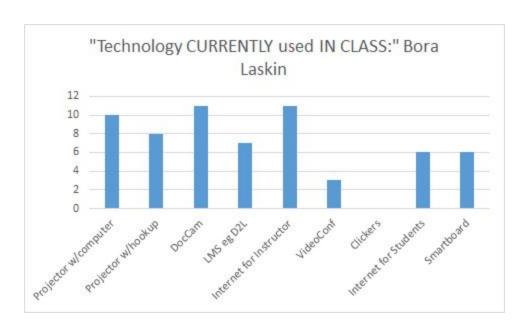


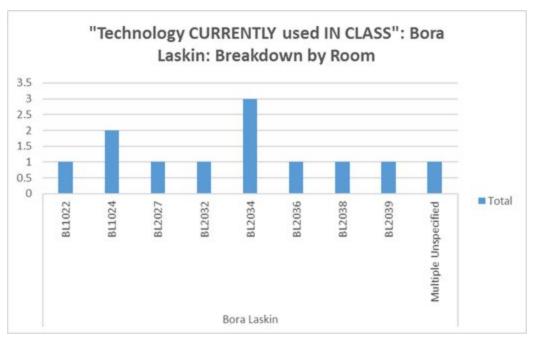
#### **ATAC**



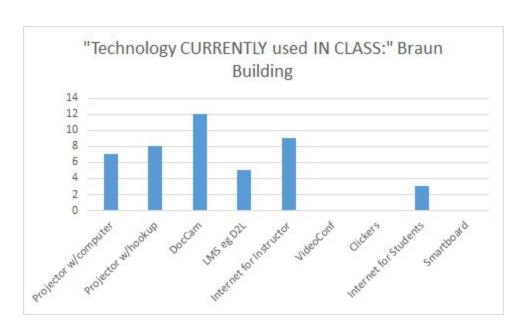


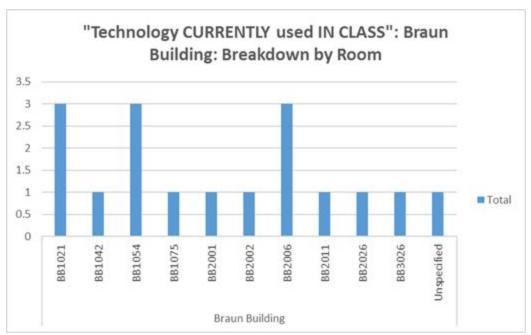
#### Bora Laskin





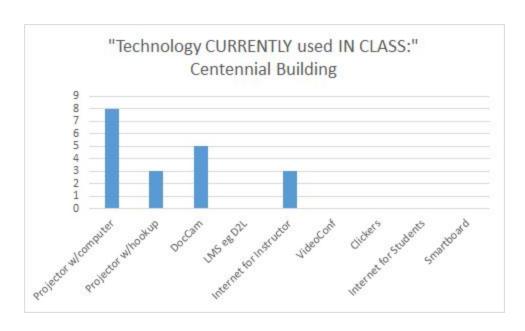
#### **Braun Building**

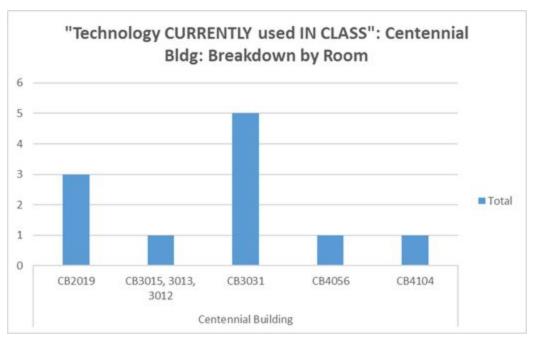




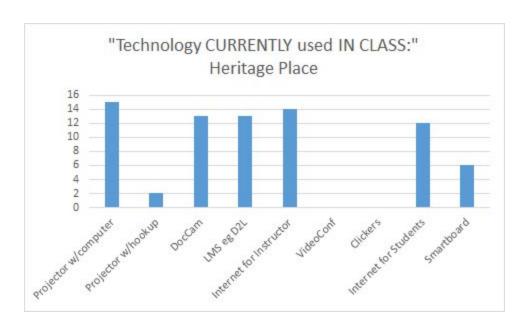
#### Centennial Building

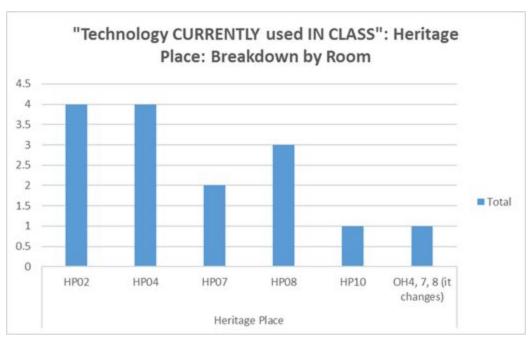
11 Responses.



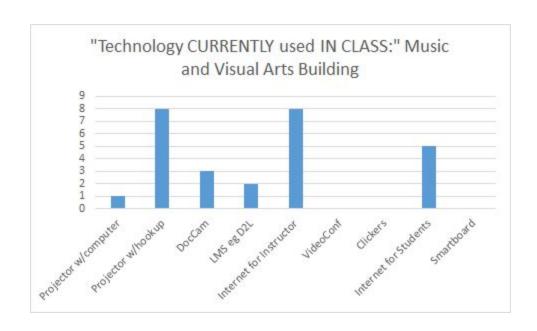


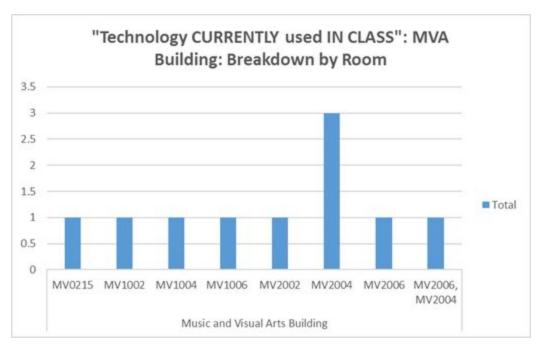
#### Heritage Place





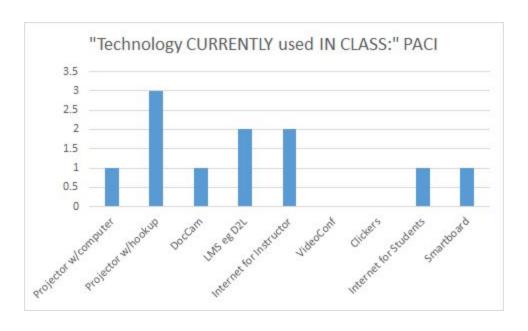
#### Music and Visual Arts Building

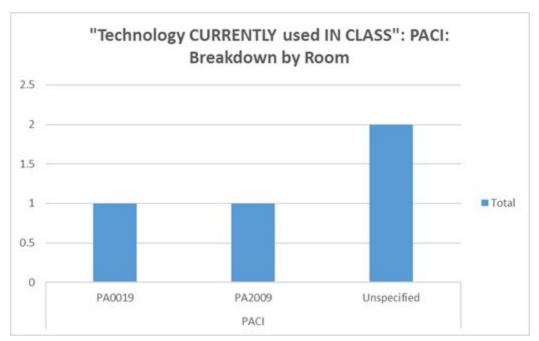




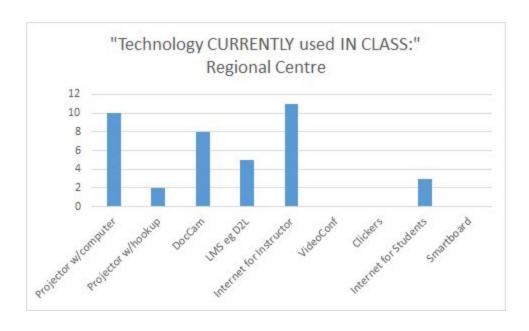
#### **PACI**

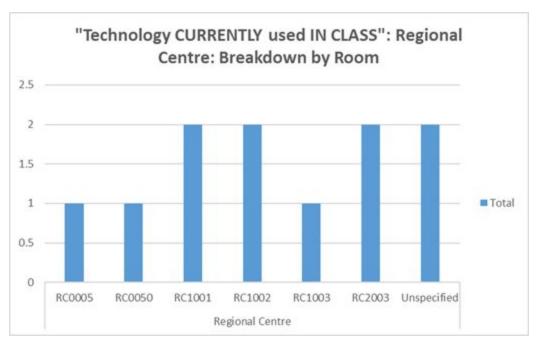
4 respondents.





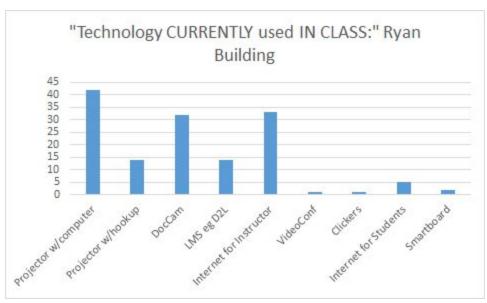
#### **Regional Centre**

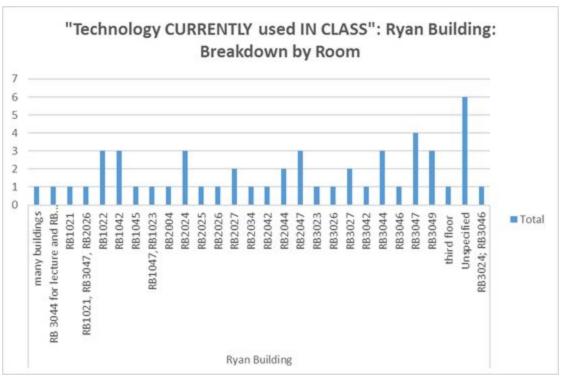




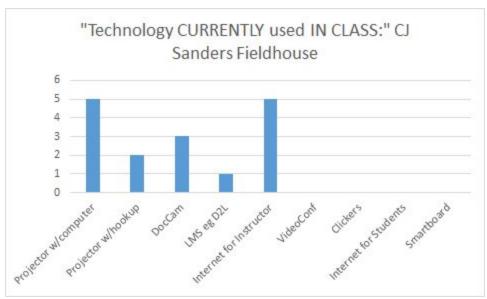
#### Ryan Building

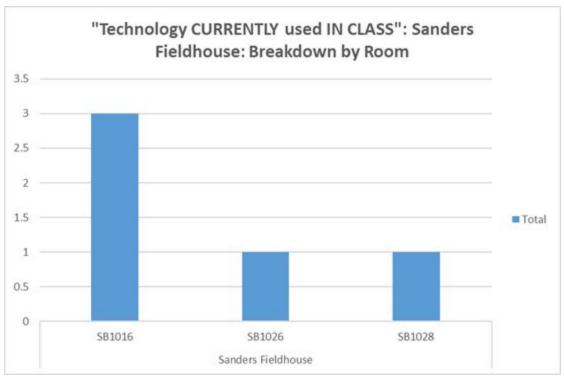
51 Responses.





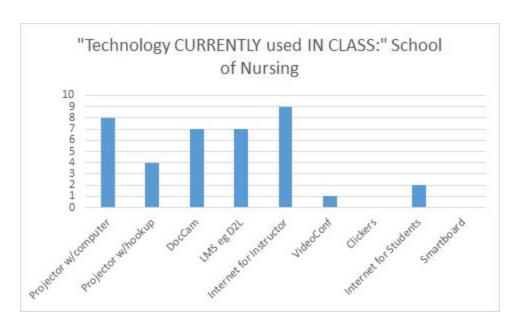
#### CJ Sanders Fieldhouse

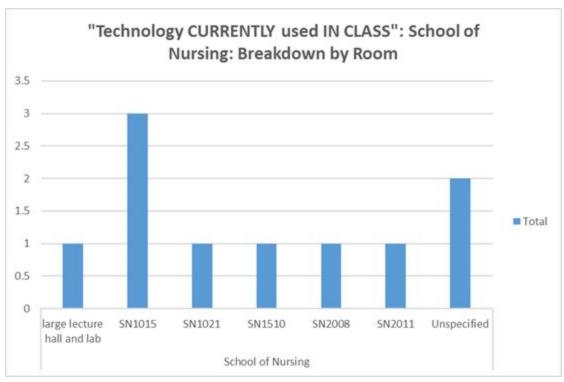




#### School of Nursing

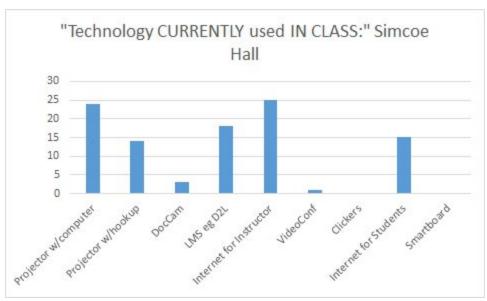
10 Responses

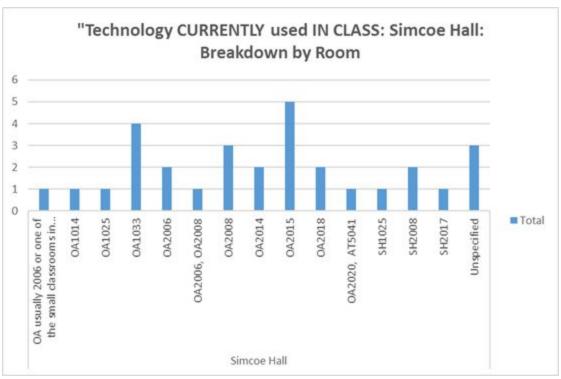




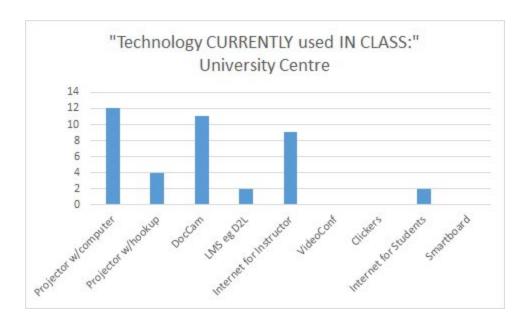
#### Simcoe Hall

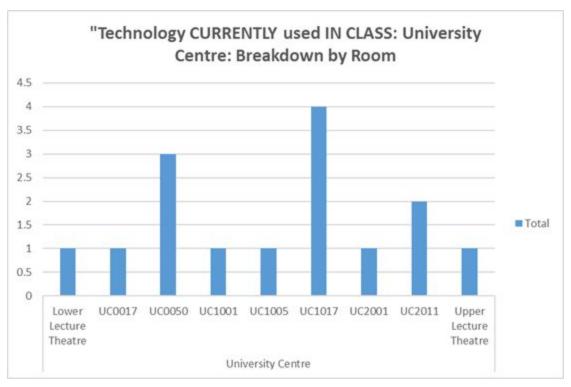
30 Responses



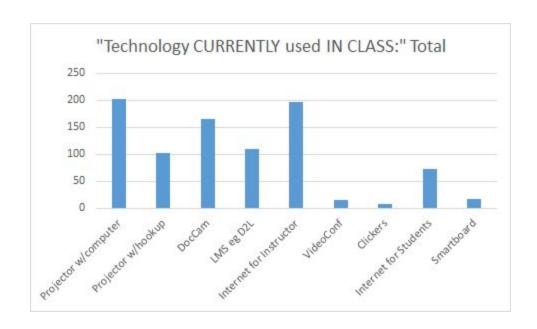


#### **University Centre**



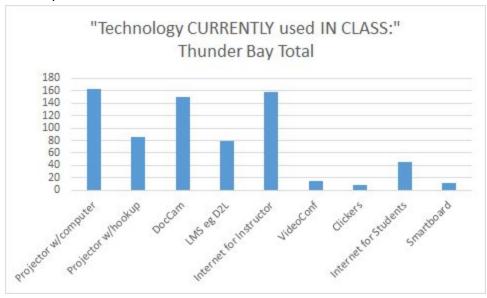


#### Total



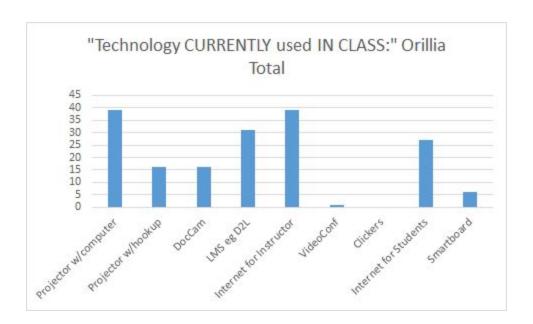
#### **Thunder Bay Total**

#### 219 responses



#### Orillia Total

45 Responses



#### **Survey Comments Summary**

There were 147 comments, in most cases attributable to a particular room in the survey. Many of the comments were about the technology in the classrooms that the faculty member used, but many were more general.

Post-survey the comments were summarized by theme. For example "room design problems" meant a variety of things pertaining to where the screen is located, where the podium is located, et cetera.

Comments are summarized by building and campus.

WordItOut was used to create word clouds.

# Thunder Bay Comments 2 or more mentions

# Room design problems

Need interactive whiteboard
Need clicker app Video/Audio quality
Lighting is a problem There is nothing
Inconsistent technology from room to room

#### Computer too slow

Software out of date Need smartboards
Reboot is SLOW Maintenance Need podium computer
Podium key required
Screen is too small for room





On the Thunder Bay campus many comments were about the need for WIFI in the classroom, complaints on how long the computer takes to start, and computer slowness in general and classroom design problems in general.

Comments show both the frustration with technology and the passion faculty have for teaching. There were several positive comments about the telepresence room.

#### Selected comments:

"How to use cameras, etc way too complicated and too dependent on Technological Services (which is understaffed as it is). It should not take 2 people, a faculty member, and a student to figure out how to use basic programs like Skype / Google when it takes 2 seconds on a laptop"

"Much of the time, the tech does not work, difficult to work, intermittently works, or simply is so outdated that when it does work, it still is not effective"

"I refuse to use conventional videoconferencing for teaching in ATAC because the technology is so unreliable and the learning experience is so poor. I have been very pleasantly surprised with how well the telepresence room is working".

"Technology podium in this class (and in most of classrooms at Lakehead) has 2 major problems: (a) size: the podium is much too large and obstructs the free movement of the instructor; (b) placement: the podium is placed in the exact location that is ideal for a lecturer to stand, forcing the lecturer to either stand behind the very large podium (which is both too far away from students and which places a large barrier between him/her and the students), or in front of the podium leaving the instructor with no access to the technology."

"The podium hardware is horrendous. The key mechanism is sketchy and often fails to detect a key. The room computer takes forever to start. The room audio from the computer usually doesn't work at all."

"When the computer was installed it was already old and now 9 years later it is very slow"

"The room lighting and related ambience, which were established long before the introductions of these technologies, are not compatible with the effective use of these technologies"

"I could change my approach to teaching if we had classroom wide internet availability".

One faculty member noted "The technology used is primarily serving content delivery". The implication is that the technology is not being used for engagement.

Predictability and consistency were also mentioned, both the need to able to count on things working and for classrooms to be consistent. One faculty member asked:

"How can I rely on D2L as a technology aid when I can't be guaranteed that the students will be able to see the pages projected on the screen?"

There were some differences between buildings and campuses, primarily regarding WIFI.

#### **ATAC Comments**

Screen covers whiteboard Software out of date Equipment Obsolete

Teleconference should be self-service (make it simpler)

WIFI Needed Podium key required

# Room design problems Video/Audio quality Need support in the evenings Clicker app needed Lab computers obsolete Screen is too small for room Lecture capture needed Seating terrible CRT TVs are installed but not used Telepresence room is good

Telepresence room is good SPSS needed

Need smartboards

Maintenance Reboot is SLOW

Need permanent document camera



#### Ryan Building Comments

Screen is too small for room

# WIFI Needed

Need videoconferencing

# nputer too slow

Sound problems Need clicker app Laptop hookup is difficult Need cassette recorder Room design problems
Old document camera does not work

Lighting is a problem

I just use my own equipment

Need place to record lectures

Need interactive whiteboard

Inconsistent technology from room to room



#### Orillia Comments

Need interactive whiteboard

# Need document camera

## Don't use what's available Interactive whiteboard does not work Technology is unsuitable for discipline Resources are available in TBay and not Orillia

Need clicker app

Computer too slow



#### Themes Emerging from the Results

After analyzing the data, there are a few themes that we feel are important to communicate. These themes focus on the needs of instructors at Lakehead, regarding the technologies that they use for teaching in the classroom. They are detailed and justified below.

#### **Essential Technology Setup**

It seems that a generic setup for classroom technology would be the best approach to take. A generic setup in this case would likely include a working and reliable computer, projector, Internet connection for the instructor and standard office and presentation software. There does seem to be a desire to accommodate personal devices, special software from time to time. We feel that this is not part of a "core" setup, but some customization could be allowed through provision of device connectors, or streamlining a special software request process. Many of these technologies currently exist in a typical ATAC room layout.

- Top technologies that were identified as "essential":
  - Internet for instructor
  - Projection system with connected computer
  - Whiteboard/blackboard
  - Projection System with hookup
  - Document Camera
  - o Internet for Students
  - Learning Management System
- Technologies that very few ranked as "essential"
  - Clickers
  - Smart boards
  - Videoconferencing
- Very small need for training the essential technologies.
- Majority of rooms rated were in the ATAC (> 70).
- Themes emerged from comments (Orillia)
  - o "Don't use what's available"
  - "Technology is unsuitable for discipline"

#### Support Needed

As there there is a need to have a generic setup, there is an expressed need to have this basic setup maintained and operational when needed. There is a concern that the equipment that was in place when the survey was taken was not always fully operational (some upgrades have since taken place). Findings that support this are:

- Themes emerged from comments:
  - "Computers too slow"
  - o "Equipment obsolete"
  - o "Maintenance"
  - o "Reboot is slow"
- Themes emerged from comments (ATAC):
  - o "Equipment obsolete"
  - o "Maintenance"
  - "Reboot is slow"
- Themes emerged from comments (Ryan Building):
  - o "Computer too slow"
  - o "I just use my own equipment"

#### **Training Needed**

There is a curious result regarding the training desired. Low numbers of respondents desire training with the "essential" technologies, but a high number of people desire training with the technologies that have not been identified as essential. As the non-essential technologies aren't widely deployed currently, we interpret this as a desire to conduct "awareness" type sessions on non-essential technologies. Perhaps there is a need to have demonstrations of these technologies, because instructors have heard of these technologies, and they are interested to see how these technologies could enhance their classes.

Besides these non-essential technologies, we feed that there is a need expressed to direct some effort in training to the essential technologies. This will ensure that technology is used to the fullest, and that instructors are capable of configuring the essential technologies to accommodate their own needs. Out of these, the Learning Management System seems to be the highest priority.

#### Consultation Needed

There is a desire to consult with instructors when there are investments that will affect the teaching environment. Some of the instructors' complaints about classroom technology arrangements could have been addressed before designs were finalized. This can include new innovative teaching technologies, or even room design and arrangement. We recognize that there may be an existing consultation progress, but we hope that these results can inform and improve the existing processes.

- Themes emerged from comments (ATAC Building)
  - o "Room Design Problems"
  - "Screen covers white board"
- Themes emerged from comments (Ryan Building)
  - "Room design problems"

- "Lighting is a problem"
- o "Screen is too small for room"
- "Need interactive whiteboard"
- Themes emerged from comments (Orillia)
  - o "Don't use what's available"
  - "Technology is unsuitable for discipline"

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### Other Findings of Interest

- WIFI is desired in the Ryan Building

The themes emerging from the comments are:

- 1. The need for more resources for WIFI, for new computers and consistent technology
- 2. The need for input from faculty when classrooms are being designed (to avoid room design problems)
- 3. The need for maintenance and evergreening of technology
- 4. The need to build awareness of existing services and the need for training
- 5. The need for support for sessional instructors and evening classes

## Appendix A - Department or Discipline Responses

Department or Discipline	Count
Unspecified	20
Education	18
Biology	9
Business	9
English	9
Anthropology	8
Nursing	8
Engineering	7
History	7
Psychology	7
Kinesiology	6
Visual Arts	6
Chemistry	5
Social Work	5
Sociology	5
Geography	4
Geology	4
Interdisciplinary Studies	4
Natural Resources Management	4
Chemical Engineering	3
Languages	3
Mathematics	3

Music	3
Sustainability Sciences	3
Electrical Engineering	2
Law	2
Mechanical Engineering	2
Outdoor Rec	2
Philosophy	2
Physics	2
Political Science	2
Women's Studies	2
Civil Engineering	1
Computer Science	1
Economics	1
General Science	1
Health Sciences	1
Indigenous Learning	1
Sciences	1
Social Sciences & Humanities	1
Software Engineering	1
undergraduate	1
Science and Environmental Studies	1

## Appendix B - Other Technology Needed

This table contains the software/technology that participants entered in the "other" field, as well as how many times it was mentioned.

Suite	Mentions
SPSS	10
Matlab	3
nvivo	3
Online survey and response based software. So students can complete anonymous surveys and give feedback anonymously and in real time	3
R	2
STATA	2
Unisim	2
Adobe Connect Capabilities	1
Adobe Creative Suite	1
Animoto	1
Atlas.ti	1
camera software that connects to cameras that are used on microscopes for showing students what they should see under a microscope in real time.	1
Camtasia	1
Finale	1
fortran	1
Geochemists Workbench	1
Geometers Sketchpad	1
gimp	1
Google Classroom	1
inkscape	1
Keynote	1
media players that can recognize mac computer formats	1

Notebook for Smartboard files	1
Podium with OSX Capability	1
Prezi	1
Publisher	1
Rstudio	1
SAS	1
Silverlight	1
Skype	1
Software to capture oneself lecturing	1
tophat	1
Various mineralogical/geochemical programs (too many to list)	1
Visio	1
visual studio	1
vlc	1
vminteo	1
web site design 2.0	1
Webex	1
Whiteboard	1

# Appendix C - Technology Used, Breakdown by Buildings and Room

This appendix contains the room-by-room breakdown of technology use across campus. There were answers that were difficult to attribute to an exact room, and these answers were preserved as submitted by the participants.

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Smart board
ATAC	59	30	57	34	58	10	7	18	3
AT1001	7	1	7	4	6			1	1
AT1003	5	1	4	2	3			2	
AT1006	6	4	7	2	7	1	1	1	
AT1007	5	2	5	2	4		3	1	1
AT1010	3	4	4	4	5		1	2	
AT2001	3		3	2	2				
AT2003	1	1	1	2	2			1	
AT2004	2	1	2	2	2				
AT2005	1		1	1	1				
AT2010	1	1	1		1			1	
AT2015	2		2	1	2				
AT2019	1	1	2		2			1	
AT2020	2		1		2			1	
AT2021	3	1	2	2	3	1			
AT3001	4	2	4	1	2			1	
AT3002	1				1	1			
AT4019	1	1	1	2	2			2	
AT4020	1				1				
AT5041	1	4	4	4	4	3	1	2	
Telepresence Room		1							
Unspecified	9	5	6	3	6	4	1	2	1

Building/Room	w/ w/	jector Doc okup Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
ATAC and UC	2	1		1				
Unspecified	2	1		1				
ATAC, BB, RB	1	1						
Unspecified	1	1						

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
Bora Laskin	10	8	11	7	11	3		6	
BL1022		1	1		1				
BL1024	1	2	2		1				
BL2027	1		1	1	1				
BL2032	1		1		1				
BL2034	3	3	3	2	3	1		2	
BL2036	1			1	1			1	
BL2038	1	1	1	1	1	1		1	
BL2039	1		1	1	1			1	
Multiple Unspecified	1	1	1	1	1	1		1	

	Projector	Projector		LMS	Internet			Internet	
	w/	w/	Doc	eg	for	Video		for	Sma
Building/Room	computer	hookup	Cam	D2L	Instructor	Conf	Clickers	Students	boa

Braun Building	7	8	12	5	9	3
BB1021	1	2	3	1	1	
BB1042				1		
BB1054	1		2	1	2	1
BB1075		1				
BB2001		1	1	1	1	1
BB2002		1	1		1	1
BB2006	2	2	3		3	
BB2011					1	
BB2026	1		1			
BB3026	1		1			
Unspecified	1	1		1		

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
CB and 1294 Balmoral	1	1				1		1	
Unspecified	1	1				1		1	

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
Centennial Building	8	3	5		3				
CB2019	2	1	1						

CB3015, 3013,				
3012	1		1	1
CB3031	4	2	2	1
CB4056	1		1	1
CB4104				

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
Heritage Place	15	2	13	13	14			12	
HP02	4		4	4	4			4	
HP04	4		3	3	4			4	
HP07	2		2	1	1			1	
HP08	3	2	3	3	3			1	
HP10	1		1	1	1			1	
OH4, 7, 8 (it changes)	1			1	1			1	

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
Music and Visual Arts Building	1	8	3	2	8			5	
MV0215		1		1	1			1	
MV1002		1			1				
MV1004									
MV1006	1	1	1		1			1	

MV2002					
MV2004	3	2	1	3	2
MV2006	1			1	
MV2006,					
MV2004	1			1	1

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
PACI	1	3	1	2	2			1	
PA0019		1	1						
PA2009		1		1	1				
Unspecified	1	1		1	1			1	

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
Regional Centre	10	2	8	5	11			3	
RC0005	1		1	1	1			1	
RC0050	1		1		1				
RC1001	2		1		2			1	
RC1002	2		1	1	2				
RC1003	1		1	1	1				
RC2003	1	2	1		2				
Unspecified	2		2	2	2			1	

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
Ryan Building	42	14	32	14	33	1	1	5	
many buildings	1	1		1	1	1			
RB 3044 for lecture and RB 2042 for Tutorial	1	1	1						
RB1021	1				1				
RB1021, RB3047, RB2026	1		1	1	1				
RB1022	2	1	3		2				
RB1042	3		3	1	3				
RB1045	1	1	1						
RB1047,RB1023	1				1				
RB2004	1	1	1	1					
RB2024	2	2	2	1	1				
RB2025	1		1		1				
RB2026	1	1						1	
RB2027					1			1	
RB2034	1		1		1				
RB2042	1		1		1				
RB2044	2	1			2				
RB2047	2	1	2	1	2				
RB3023	1			1					
RB3026	1		1						
RB3027	1	1	1	1	1				

RB3042	1						1
RB3044	3	1	2	1	3	1	
RB3046	1		1	1	1		
RB3047	4	1	2		2		1
RB3049	3		1	1	3		
Ryan Building							
3024; 3046	1		1	1	1		
third floor	1		1	1	1		
Unspecified	3	1	5	1	3		1

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
Sanders Fieldhouse	5	2	3	1	5				
SB1016	3	1	2	1	3				
SB1026	1		1		1				
SB1028	1	1			1				

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
School of Nursing	8	4	7	7	9	1		2	
large lecture hall and lab	1		1	1	1				
SN1015	3	1	3	3	3				
SN1021	1	1	1	1	1	1		1	

SN1510	1	1	1	1	1	
SN2008		1		1	1	
SN2011						
Unspecified	2		1		2	1

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
Simcoe Hall	24	14	3	18	25	1		15	
OA usually 2006 or one of the small classrooms in that area	1				1			1	
OA1014	1	1		1	1				
OA1025	1			1	1			1	
OA1033	3	1		2	3			1	
OA2006	2			2	2			1	
OA2006, OA2008	1			1	1			1	
OA2008	2	2	1	2	2			2	
OA2014	2				1			1	
OA2015	4	3	1	3	5			4	
OA2018	2	1	1	1	2			1	
OA2020, AT5041						1			
SH1025		1		1	1				
SH2008	2	2		2	2				
SH2017		1			1			1	

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
University Centre	12	4	11	2	9			2	
Lower Lecture Theatre	1								
UC0017			1						
UC0050	3	1	3		3			1	
UC1001	1				1				
UC1005	1		1	1	1				
UC1017	4		3	1	2				
UC2001		1			1			1	
UC2011	1	2	2						
Upper Lecture Theatre	1		1		1				

Building/Room	Projector w/ computer	Projector w/ hookup	Doc Cam	LMS eg D2L	Internet for Instructor	Video Conf	Clickers	Internet for Students	Sma boa
varies among ATAC, UC, RB,	1	1	1		1				
Unspecified	1	1	1		1				

	IsCurrentTechAdequa	IsCurrentTechAdequate
Building	te	(%)
ATAC	72	27.17%

No	18	25.00%
Yes	54	75.00%
(blank)		0.00%
ATAC and UC	2	0.75%
Yes	2	100.00%
ATAC, BB, RB	1	0.38%
Yes	1	100.00%
Bora Laskin	12	4.53%
No	5	41.67%
Yes	7	58.33%
Braun Building	17	6.42%
No	5	29.41%
Yes	12	70.59%
CB and 1294 Balmoral	1	0.38%
No	1	100.00%
Centennial Building	11	4.15%
No	5	45.45%
Yes	6	54.55%
Heritage Place	15	5.66%
No	7	46.67%
Yes	8	53.33%
Music and Visual Arts		
Building	10	3.77%
No	4	40.00%
Yes	6	60.00%
PACI	4	1.51%
Yes	4	100.00%
Regional Centre	11	4.15%
No	4	36.36%
Yes	7	63.64%
Ryan Building	50	18.87%
No	24	48.00%

Yes	26	52.00%
(blank)		0.00%
Sanders Fieldhouse	5	1.89%
No	2	40.00%
Yes	3	60.00%
School of Nursing	9	3.40%
No	8	88.89%
Yes	1	11.11%
(blank)		0.00%
Simcoe Hall	29	10.94%
No	3	10.34%
Yes	26	89.66%
(blank)		0.00%
University Centre	15	5.66%
No	7	46.67%
Yes	8	53.33%
varies among ATAC, UC, RB,	1	0.38%
Yes	1	100.00%
<b>Grand Total</b>	265	100.00%