Detour Ahead: Overcoming Roadblocks to Educational Technology Use in College Teaching

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DAWSON COLLEGE

Cégep André-Laurendeau

Research Overview

- Examined and compared student and faculty perspectives on use of ICTs

- 311 students from 1 English and 1 French language Cegep

- 114 of the professors nominated by students for excellent use of ICTs

Method

Students

- Online questionnaire
- Experiences with technology in cegep
  - Technologies professor used
  - What works well for them
  - Nomination of professors

Professors

- Semi-structured interview
- Checklist of technology used

Student Characteristics

- Sex
  - Female : n = 183 (59 %)
  - Male : n = 126 (40 %)
- Age : average = 20.50
- Program of Study
  - Pre-university : n = 210 (68 %)
  - Technical / career : n = 94 (31 %)
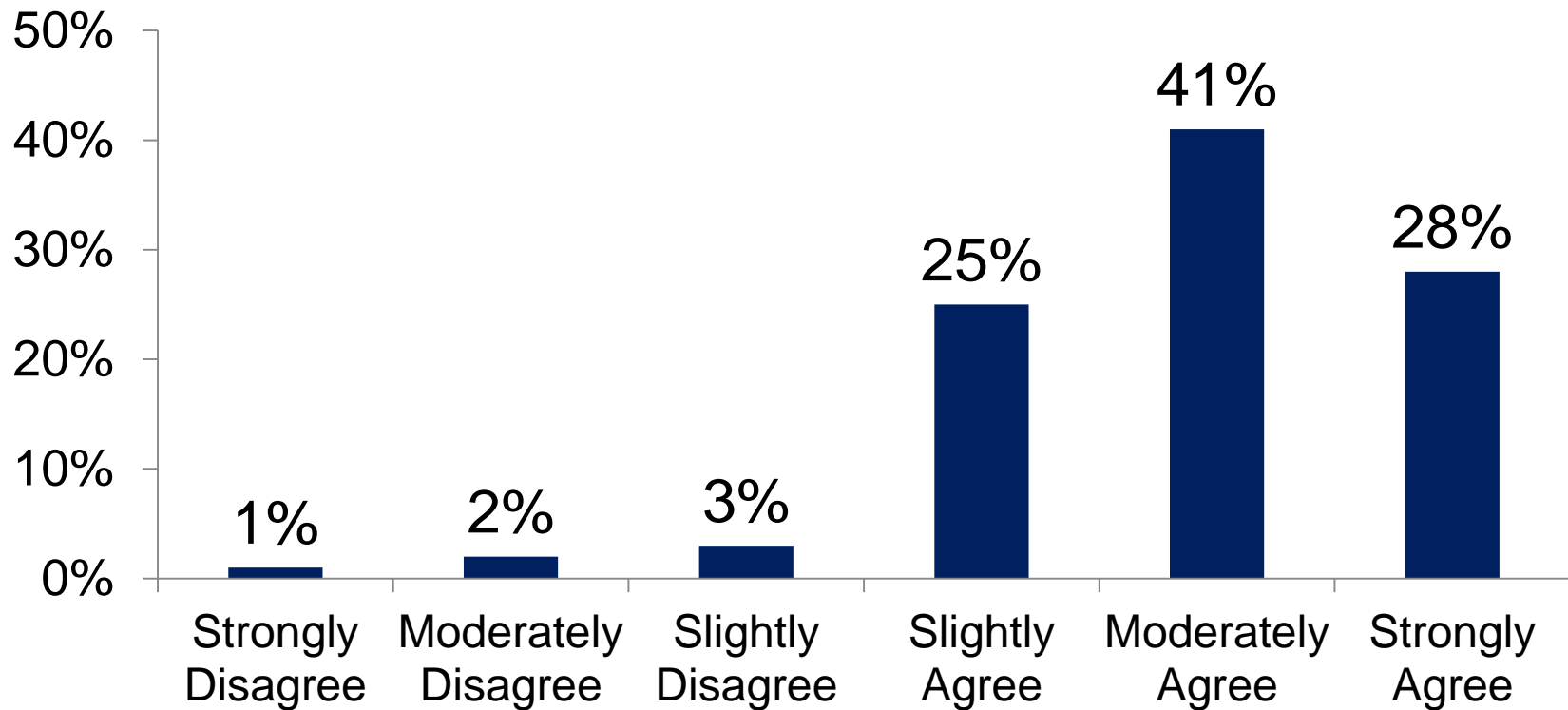
Professor Characteristics

- Language of Cegep:
  - English (54%)
  - French (46%)
- Sex: Female (40%), Male (60%)
- Program:
  - Social science (34%)
  - Science (37%)
  - Arts (28%)

Value of Research

- Findings need to be accessible
- Impact on daily teaching
- Collaborative effort
- Solve practical problems

I Like Courses Where Professors Use Technology

Findings and Possible Solutions

#10 : Attendance Records Online

- Professors used – 59%

- Worked well for students – 90%

- Comments
  - Professors
    - Students should already know
    - Time consuming

#10: Possible Solutions

- Use the online app (iOS/Android) (smartphone/tablet) for either **Lea** or **Moodle** to take the attendance.

https://play.google.com/store/apps/details?id=com.skytech.omnivoxmobile&hl=en

https://itunes.apple.com/ca/app/omnivox-mobile/id721913649?mt=8

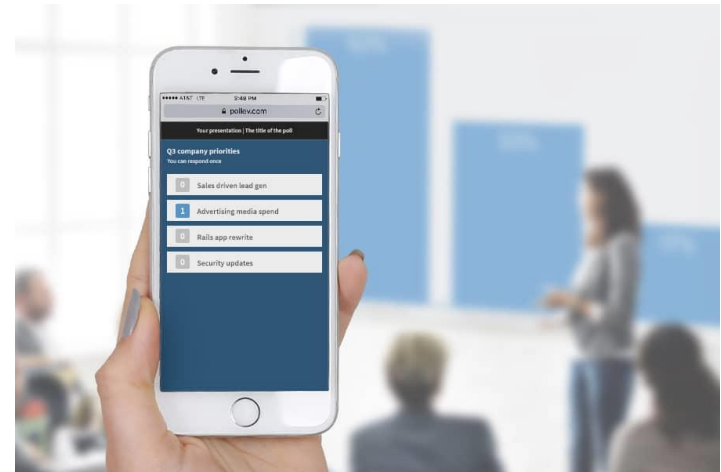https://download.moodle.org/mobile/

#9 : Use of Clickers

- Professors used – 17%

- Worked well for students – 73%

- Comments

  - Professors

    - Inconvenient to pick up and return

    - Sometimes they do not work

    - Despite this, on faculty wish list

#9 : Possible Solutions

- Use an online (web-based) clicker solution, like Poll Everywhere:

  - <u>https://www.polleverywhere.com/</u>

#8 : Use of Smart Board

- Professors used – 24%

- Worked well for students – 78%

- Comments

  - Professors

    - On faculty wish list (not readily available)

    - Lack of knowledge about how to use

  - Students

    - Still want conventional course notes

#8: Possible Solutions

- Creation of an Active Learning Community of Practice

- Sharing best practices

- Training

- Keep class notes on a LMS (Moodle/Lea) or send them via email

#7: Online Testing

- Professors used – 39%

- Worked well for students – 89%

- Comments

  - Professors

    - Concerns about cheating

    - Extended time accommodations
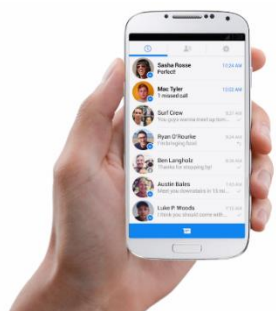
#7: Possible Solutions

- Use a software to block access to external websites (LanSchool)

- Shuffle questions and choices (when using Moodle quizzes)

- Check with publishers for "accessible tests"

#6A: Use of E-mail

- Professors used – 99%

- Worked well for students – 87%

- Comments

  - Students (Worked well BUT)

    - Delay in response

    - Too many different means of communication

    - Too many e-mails

    - Large files difficult to send

#6A: Possible Solutions

- Create a private Facebook Community for your class

- Use Messenger to communicate with students

- Large files: put them in a cloud repository (Dropbox, OneDrive) and share the link
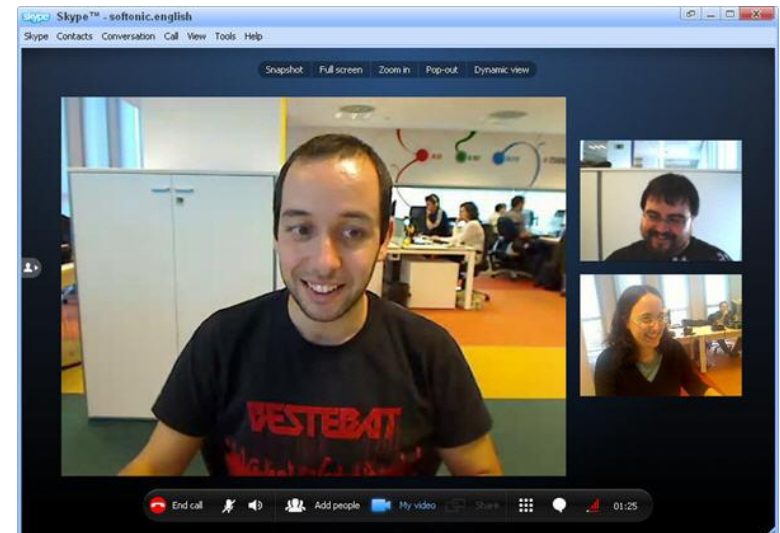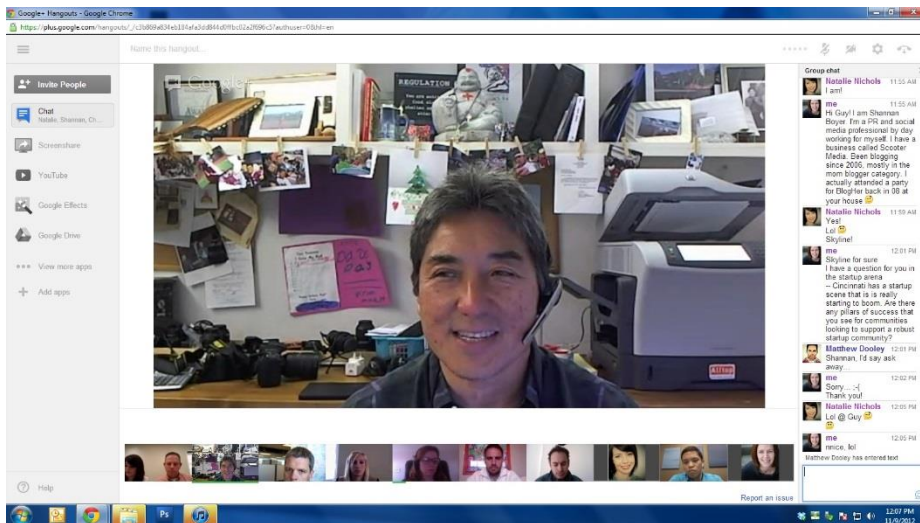
#6B: Virtual Office Hours

- Professors used – 30%

- Worked well for students – 86%

- Comments

  - Students

    - Also wanted face-to-face office hours

#6B: Possible Solutions

- **Blended Solution**: use a web-based solution to connect to students at a distance and stay in your office for the face-to-face meetings. Google Hangout, Skype

#5: Peer Communication

Collaborative work online

- Professors used – 25%
- Worked well for students – 62%

Discussion forums

- Professors used – 28%
- Worked well for students – 53%
- Comments – Students and Professors
  - Group work concerns

#5: Possible Solutions

- **Google Docs & Office 365**: collaborative work in online documents

- **Facebook Community**: online discussion and sharing. Facebook Messenger for online communication

#4: PowerPoint

- Professors used – 91%

- Worked well for students – 98%

- Comments

  - Students (worked well BUT)

    - Cluttered slides

    - Difficult to read

    - Too much text, no images

    - Moved through slides too quickly

#4: Possible Solutions

- Use online solutions: Google Slides, Office 365, Prezi

- Training on how to create more effective presentations

- Put presentations online so that students can follow it during the class and can download it if necessary

#3: Professors' Knowledge of Technology

- Student and professor concern re level of knowledge

- Professors learned to use technology:
  - On their own – 53%
  - Workshops – 12%

- Professors wanted:
  - Training videos / online tutorials
  - Training for Smart Board and clickers

#3: Possible Solutions

- One-on-One Trainings for teachers

- Workshops on Ed Tech to students

- Communities of Practice: share best practices. Teachers inspiring teachers

- Youtube edtech channels, newsletters, blogs (DawsonITE), my presentations at http://slideshare.net/rscapin

#2: Students' Knowledge of Technology

- 32 % of professors showed students how to use course related technology

  - Professors in career / technical programs more likely to show than pre-university

- Professors felt students overestimated their ability

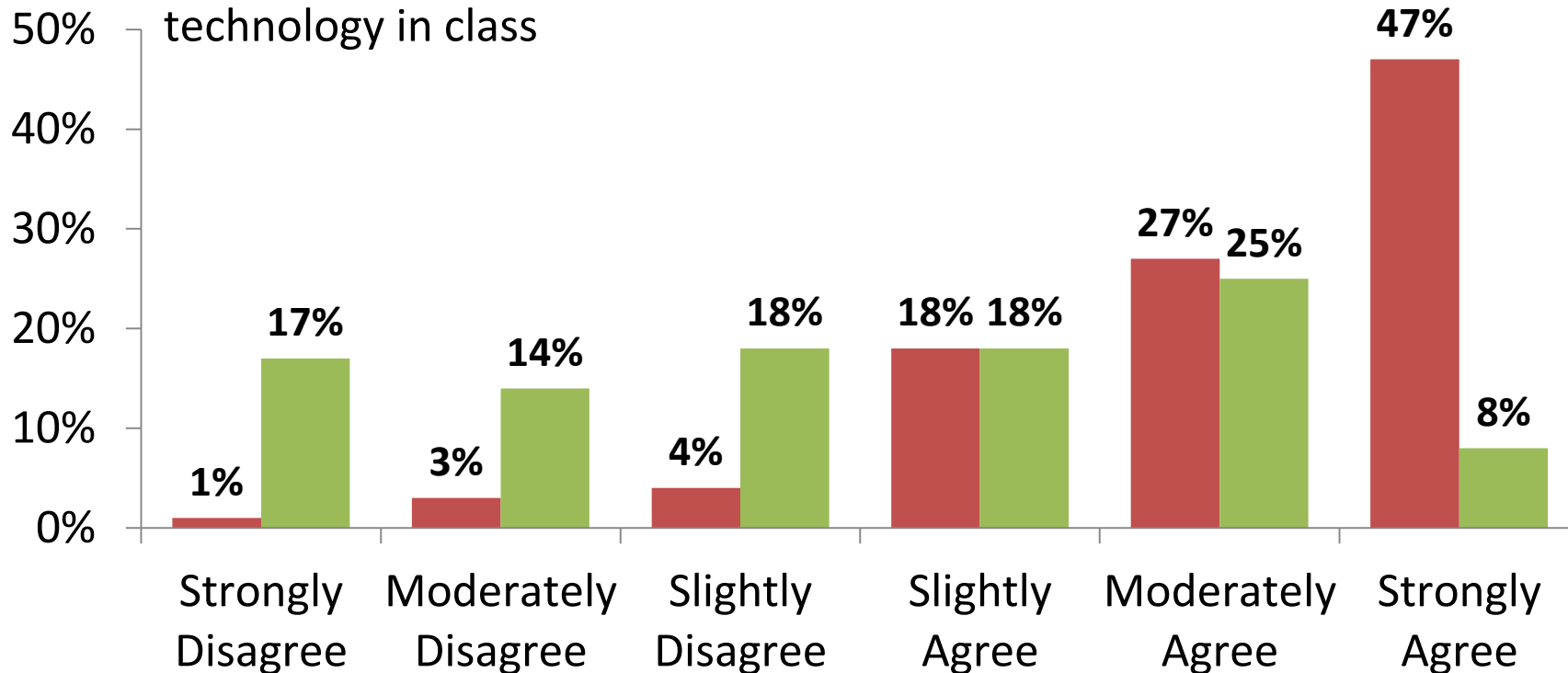- Students felt professors should teach required skills

#2: Possible Solutions

- **Misconception**: students are tech savvy. True?

- Workshops on edtech content to students: useful apps, websites, cloud solutions

- My presentations: https://www.slideshare.net/rscapin

#1: Students' Use of Personal Technology

Students: I like courses in which professors allow use of personal technology in class

Students: In general professors allow use of personal technology in class

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
I like courses	1%	3%	4%	18%	27%	47%
In general	17%	14%	18%	18%	25%	8%

#1: Students' Use of Personal Technology (cont'd)

- Professors felt students used personal technology inappropriately

- Never asked students purpose of use in class

#1: Possible Solutions

- In conjunction with a **BYOD policy**, make students aware of how technology should be used in the classroom

- Get feedback from students on how they feel in using technology in the classroom

Take Home Messages

- Help is available:
  - Online resources
  - Campus technical support
  - Peer support
- Not only what technology is being used, but how well it is used

Questions?

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