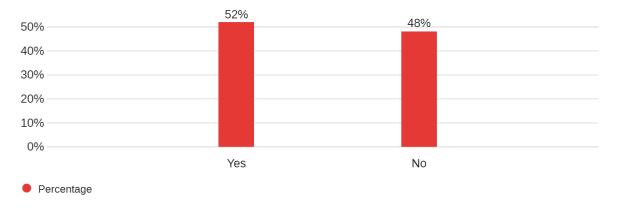
#### ITPC Report on Student Survey on Classroom Technology Use at Northeastern University

Author: Balazs Szelenyi, Chair, Information, Technology and Policy Committee Spring 2024

In an effort to better understand the impact of technology in our classrooms, the Senate Information and Technology Policy Committee (ITPC) partnered with the University Decision Support in the Provost's office to launch a comprehensive student survey aimed at evaluating classroom technology and its utilization. This initiative was designed to illuminate the ways in which faculty interaction with classroom technology influences students' learning experiences. The survey collected responses from 679 students. Out of the 679 students 373 were graduate students, while the remaining 306 were undergraduates.

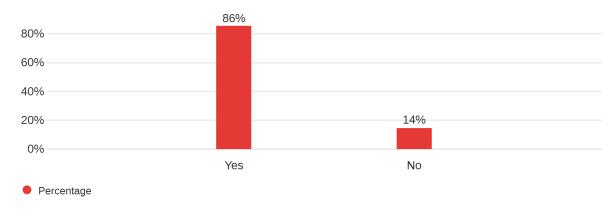
A significant finding from the survey was that approximately 52% of the students observed difficulties faced by instructors in using classroom technology.

## Q2 - In any of your classes, has the instructor had difficulty using the classroom technology?



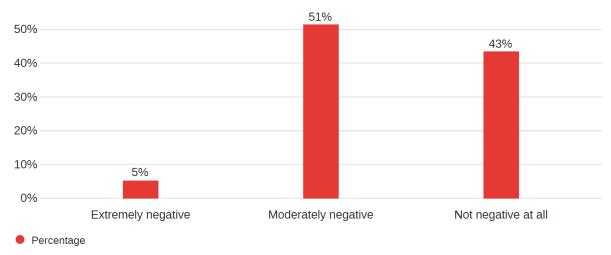
This challenge with technology not only hindered the smooth commencement of classes but also impacted the overall learning experience. Notably, about 85.5% of the participants confirmed that such difficulties did indeed delay the start of classes, indicating a widespread issue that requires attention. Conversely, a smaller fraction (14.5%) reported no such delays, suggesting variability in technological proficiency or resource availability across different classrooms or departments.

## Q3 - Did the instructor's difficulty using the classroom technology delay the start of the class?



The survey tried to measure these technological difficulties on students' learning experiences. While a relatively small percentage (5.2%) felt that the delays "extremely negatively" affected their ability to learn, a significant portion (51%) experienced a "moderately negative" impact. This indicates that while the issue does not drastically hinder learning for most, it does pose a considerable obstacle that affects a majority of the student body. Nevertheless, it is notable that 43% of respondents believed that these issues had no negative impact on their learning, showing a large number of students who do not feel affected by this issue.

# Q4 - How does the instructor's difficulty using the classroom technology impact your ability to learn in the class? *Would you say the impact is ....*



#### **Student Voices**

There were 211 individual responses to question 6, where students were asked to describe anything specific that they liked or disliked about the classroom's technological configuration.

Positive Aspects of Classroom Technology: The survey responses highlighted several positive aspects of the technology used in classrooms. Notably, students appreciate how technology has made classes more interactive, facilitating a more engaging and participatory learning environment. The integration of modern tools and resources, such as smart boards, digital projectors, and online platforms, was commended for significantly enhancing the quality of instruction and the overall learning experience. Furthermore, the maintenance and condition of the classrooms, including the technological equipment, received positive remarks, indicating a satisfactory level of support and upkeep from the university.

#### Challenges and Areas for Improvement

On the flip side, the survey uncovered several challenges that students face concerning classroom technology. A considerable number of responses pointed to technical difficulties, especially issues related to connecting personal devices to the classroom's technological systems. The prevalence of outdated equipment emerged as a significant concern, suggesting a need for updates or replacements to keep pace with current technological standards.

Moreover, the classroom design and infrastructure were noted as areas needing attention. Complaints about overcrowding and insufficient charging stations for electronic devices indicate that some physical spaces may not fully accommodate the needs of today's students, who rely heavily on laptops and other personal devices for their studies.

#### Conclusion

The mixed feedback underscores the importance of ongoing efforts to enhance the technological infrastructure and support within classrooms at Northeastern University. While the positive aspects highlight the success of current implementations and their impact on learning, the challenges identified serve as feedback for further improvement.

Examples of comments made by students on the positives or negatives of classroom technology. :

#### Comments:

- 1. Projector system seems to consistently have issues connecting.
- 2. Seems like each building had different technology, making it hard to adapt quickly.
- 3. I think there are times when the computer microphones don't work well.

- 4. I like the option of online ZOOM classes which gives flexibility.
- 5. It's helpful that lectures are now recorded/streamed for later viewing.
- 6. The integration is inflexible, only works for certain types of teaching.
- 7. The monitors in the ISEC conference rooms are too high, causing neck strain.
- 8. Some classrooms don't have a socket.
- 9. The technology can be annoying but when it does work, it enhances the learning experience.
- 10. Sometimes the computer blocks the slides that are being presented.
- 11. When the classrooms have the small desks, it's hard to keep everything you need.
- 12. Some classrooms it is very hard to get in and out without disturbing others.
- 13. The Projector not working to project slide and sometimes internet issues.
- 14. It's not very reliable, and seems to get updated often which causes issues.
- 15. Flexible seating arrangements to accommodate different styles of learning.
- 16. Classroom was fine but one display did not work properly.
- 17. The individual chairs with the desks connected are not comfortable for long periods.
- 18. Some of the rooms are too small, and when the class is full it feels very cramped.
- 19. The microphones don't work all the time.
- 20. Dodge 150 is a hot mess--always issues with the tech in there.
- 21. NOTHING EVERYTHING IS GOING GOOD.
- 22. Projectors are not always reliable.
- 23. When the classrooms have the small desks, it's hard to keep everything you need.
- 24. Some classrooms it is very hard to get in and out without disturbing others.
- 25. The Projector not working to project slide and sometimes internet issues.
- 26. Can be annoying to set up.
- 27. The way the screen is right in the middle makes it easy for everyone to see.
- 28. I adore lecture halls with charging capacities at each seat.
- 29. In fact, most of my professors have not encountered any issues with the technology.
- 30. In Shillman Hall, the classroom in the ground floor has poor acoustics.
- 31. Projectors or screens in the classroom not compatible with all devices.

- 32. The classrooms are well maintained. The university has done a good job in this regard.
- 33. Like: Good facilities such as projectors, whiteboards, and proper seating arrangement.
- 34. The technology used to record classes helps me review the lectures later.
- 35. Everything was excellent.
- 36. Most professors I have/had struggle with the smart boards.
- 37. Instructors have regular difficulty connecting to the technological systems.
- 38. Every class has very good technology.
- 39. Its hard for professors to connect their laptops to the projectors
- 40. The teachers wastes 20 minutes of an hour lecture trying to set up the technology
- 41. It seems as though many professors (those who aren't tech-savvy) struggle with using classroom technology.
- 42. Everything was perfect.
- 43. Many times Shillman Hall room 135, the equipment does not work as expected.

Appendix: Breakdown of participants from each college by their graduate or undergraduate status:

- Bouvè College of Health Sciences
  - Graduate: 16
  - Undergraduate: 20
- College of Arts, Media & Design
  - Graduate: 9
  - Undergraduate: 20
- College of Professional Studies
  - Graduate: 80
  - Undergraduate: 15
- College of Social Sciences & Humanities
  - Graduate: 13

• Undergraduate: 25

## • College of Engineering

Graduate: 138

• Undergraduate: 49

## • College of Science

• Graduate: 23

• Undergraduate: 58

#### • D'Amore-McKim School of Business

• Graduate: 16

• Undergraduate: 68

### • Khoury College of Computer Sciences

• Graduate: 67

• Undergraduate: 45

#### • Office of the Provost

• Graduate: 0

• Undergraduate: 6

#### School of Law

Graduate: 11

• Undergraduate: 0