Ottawa-Carleton District School Board

Learning · Well-Being · Social Responsibility

Committee of the Whole   **10 September 2024**
Report No. 24-105

Equitable Access to Technology

Key Contact: **James Proulx, Executive Officer,**
                           Technological Support Services,
                           613-596-8211 ext. 8535

PURPOSE:

1. To provide information on the Equitable Access to Technology Plan.

STRATEGIC LINKS:

2. The Equitable Access to Technology Plan (Appendix A) is aligned with the values of the District's Strategic Plan in that it focuses on Equity, Inclusion and Accessibility for our students and staff by providing them with the tools they need to learn and work. It fosters Community Building by providing families with technology in their homes, bridging the gap between home and school. By relying more on digital resources and less on photocopies we are teaching our students about Responsible Resource Use. The emphasis on creating digital leaders and empowering students to make informed decisions through critical thinking supports our Leadership Development value statement.

CONTEXT:

3. In fall 2017, the Director's Executive Council (DEC) approved a five year Technology Plan which guaranteed a baseline technology mobile technology ratio of 4:1 students to devices. It also allocated funding for projectors in every classroom, speciality labs for technology courses and chromebook lending libraries at the secondary schools. During the pandemic extra funding was granted to the District to supplement the chromebook inventories and currently all schools have at minimum a 2.8:1 ratio of chromebooks with RAISE schools being funded at 2:1.

    Many boards have shifted to a 1:1 model of device allocation to allow equity of access amongst students. The grades range secondary only to intermediate - secondary and junior - secondary. Business and Learning Technologies (BLT) is recommending a 1:1 ratio of chromebooks in grades 7 - 12. This will begin in fall

2025 and be phased in over a three year period. We will also be moving to a 2:1 ratio in grades 2-6 and a 4:1 ratio of iPads in K-1. Existing devices will be used as well and we will purchase new devices to fill in any gaps. Additional devices for primary students and staff are outlined in the Equitable Access to Technology Plan, as shown in Appendix A.

KEY CONSIDERATIONS:

4. **Learning Management Systems**

During the pandemic, Learning Management Systems (LMS) such as Google Classroom or the Virtual Learning Environment (VLE) became a staple for classroom teachers to share curriculum, learning materials, updates and function as a hand in/ hand back system for assignments. While they are not mandatory post pandemic, they are still being widely used and become essential when learning from home is needed (e.g. bus cancellations, snow days, teacher shortages). Students who do not have access to technology at home are disadvantaged in that they cannot access the LMS and are not able to complete the assignments online. This creates a gap for a population of our neediest students.

5. **Digital Tools**

Over the past few years, the District has begun to adopt digital tools to support the learning of our students. Lexia and Knowledgehook are examples of investments made by Program and Learning Innovation which support learning for our students. Additionally, as part of the destreaming planning, educators highlighted the value of tools such as Desmos which allow students to be able to access and demonstrate their learning in the destreamed math curriculum. By providing 1:1 allocation of chromebooks in grades 7 -12 we are ensuring that all of our students can access these tools both at school and at home so there is no interruption in their learning.

6. **Digital Literacy:**

Digital Literacy is one of the transferable skills outlined in the front matter of the Ontario curriculum documents. Our students are expected to be able "to solve problems using technology in a safe, legal and ethically responsible manner. "[1] Educators need to have the supports of guided lessons and resources, such as those provided from partner agencies like MediaSmarts, to work with students as they build their digital literacy skills. Business and Learning Technology coaching support can provide educators with guidance on how to navigate situations when they arise giving educators more confidence and resources to manage the ever evolving landscape in the classroom.

7. **Artificial Intelligence Framework:**

Investing in technology for both students and teachers is a transformative step towards integrating Artificial Intelligence (AI) into education. By equipping each student and educator with their own device, we empower them to access AI-driven tools and resources that personalize learning experiences. This technology enables teachers to create dynamic lessons tailored to individual student needs, leveraging AI

to provide real-time feedback and differentiated learning experiences. Students gain invaluable digital skills and an understanding of the impact AI has on the information they interact with, preparing them for the technological landscape of the future. Educators can explore innovative teaching methods, and foster creativity and critical thinking in their classrooms. Embracing AI through accessible technology not only enhances educational outcomes but also cultivates a generation of learners adept at navigating and leveraging emerging technologies for lifelong success.

There is currently a working group which is developing a framework for Artificial Intelligence and Emerging Technologies. This framework will guide educators on the use of Artificial Intelligence in both the learning and teaching environments as well as prepare staff for any new emerging technologies.

8. **SATE Pilot:**

In the 2021/22 school year, the SATE schools embarked on a two year pilot to determine if a 1:1 technology allocation model would address the needs of students in these targeted schools. Students in grades 5 - 8 were allocated chromebooks at a 1:1 ratio. In most schools, the students were able to take them home. Overall, the students reported that they saw the benefits of having a chromebook allocated to them. Educators felt it improved the digital literacy of their students. One area of need which was identified was the need for coaching support for the educators who needed to shift the way they taught in the classroom.

9. **Coaching Support:**

In 2010 Business and Learning Technologies established six Instructional Technology Coach positions with the purpose of supporting educators with integrating technology into instructional practice. The coaching program was successful in supporting staff especially when we moved into the Google Workspace. Currently, due to various rounds of budget cuts over the years, there is only one Instructional Technology Coach in Business and Learning Technologies. Feedback from other school boards indicates that coaching support is critical to the success of implementing a 1:1 device allocation in the classroom. Teachers will need to adjust how they deliver curriculum, prepare assessments and manage classroom activities. Without coaching support there is a risk that teachers will substitute weak teaching practice into a digital format which can result in lack of engagement with students.

Three additional coaching support positions were added to Business and Learning Technology for September 2024 to begin the work of preparing teaching in a 1:1 classroom. Front loading the coaching support will provide time for Business and Learning Technologies to collaborate with other central departments to determine the priorities for the coaching and begin developing scaffolded professional development resources for educators. They will also begin supporting their family of schools with embedded coaching support with the goal of demonstrating effective use of digital tools to enhance learning in the classroom.

RESOURCE IMPLICATIONS:

10. The cost to fund the Equitable Access to Technology Plan will be a total of $11.7 million for the first 3 years of implementation and an average refresh cost of $6.6 million per year for subsequent years.

COMMUNICATION/CONSULTATION ISSUES:

11. Consultation has occurred with other school boards who have embarked on a 1:1 chromebook model. As well, Business and Learning Technologies consulted, as part of the Technology Plan review, with departments, staff and students in the District. Staff also consulted research to determine the impacts of this model on the outcomes for students.

    Business and Learning Technologies will work with Communications on a Communications Plan for the District.

GUIDING QUESTIONS:

12. Are Grades 7-12 appropriate grades for the 1:1 model of technology?

    Are there any supports for parents that should be considered in this project?

    Are there any cost savings that can be incurred as a result of this initiative?

Appendix A: Equitable Access to Technology Plan

_____   _____

James Proulx,   Pino Buffone,
Executive Officer,   Director of Education and
Technological Support Services   Secretary of the Board

Notes:
 1. https://www.dcp.edu.gov.on.ca/en/program-planning/transferable-skills/digital-literacy