

## Educational technologies and teacher autonomy

The redesigned British Columbia K–12 curriculum foregrounds the importance of “ICT-enabled learning environments.” The rationale is that a rapidly changing world necessitates that students have “opportunities to develop the competencies required to use current and emerging technologies effectively in all aspects of their learning and life” (BC Ministry of Education, 2015, p. 6). These environments are not only about *what* is taught (e.g. “rich online resources”), but also about *how* and *where* teaching happens (e.g. to “facilitate collaboration” and “share digitally in a learning experience, wherever they may be”). While these environments provide many opportunities, they also have the potential to dramatically change what teaching and learning looks like across schools in BC.

Following recent analysis by *We The Educators*,<sup>1</sup> a joint project of the Alberta Teachers’ Association, the Canadian Teachers’ Federation and Education International, the global proliferation of education technologies is inseparable from “the privatisation and standardization of education occurring around the world” (We The Educators, 2017, p. 1). Drawing on interdisciplinary research, the report argues that there are four key areas that have the potential to profoundly shape the impact that educational technologies have on teaching and learning. These are: “standardization, personalization, privatisation and the datafication of learning” (1). Taken together, the concern is that educational technologies can contribute to the deprofessionalization of teaching and profoundly impact teacher autonomy.

The rest of this report positions these concepts within existing BCTF research and position statements, and raises key questions as to how “ICT-enabled learning environments” can enhance, rather than hinder, the fundamental goals of public education.

### Standardization

Broadly, “standardization” is part of an “accountability” agenda that has sought to address gaps in student achievement. However, standardization has also come to stand for “specifications of what should be learned and assessed, open to public scrutiny and, thus, a means of holding both teachers and the education system accountable” (Lepota and Murray in We The Educators, 2017, p. 3).

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<sup>1</sup> See: <https://wetheeducators.com/>

Previous BCTF analysis has examined standardization in relation to mandated, district-wide, and provincial testing (BCTF, 2009). As a form of standardization, assessments are based on narrowly focused outcomes, rather than the learning needs of the child. They have the potential to take time away from teaching and learning, as well as to restrict what gets taught within the curriculum. The BCTF position is that “educational policy and practice must shift away from standardization and return to focusing on student’s individual learning needs” (p. 6). There is also specific BCTF policy related to the use of technology for assessment and communication with parents:

“The uses of technology for assessment practices should be determined by members at the school level. Research, evaluation and training should be in place prior to the introduction of such technology.” 9.A.17.21 (BCTF, 2017d, p. 46)

“That the professional autonomy of teachers includes deciding on whether using information and communications technology is the most appropriate method of communication with parents.” 51.C.03 (BCTF, 2017d, p. 159)

The recent revision of the Foundational Skills Assessments (FSAs) provides an example of how a technology-driven approach might impact teaching and learning. The FSA uses an online questionnaire, where students are required to manipulate technology (e.g. an iPad or the computer mouse) to be able to answer the questions. While this may simplify (and standardize) test administration, the design of the test assumes that all schools have access to adequate and reliable technologies. The use of an online questionnaire also assumes that all students have the digital literacy needed to manipulate the technology in selecting answers. In response, teachers may feel pressure to focus on “how” to take the test. The test may also further marginalize students who do not have equitable access to technology, or whose unique learning needs do not “fit” the technology-driven format of the test.

Another example of standardization in BC is the proposed development of an Individualized Education Plan (IEP) template for MyEducationBC. Supported by the Ministry, a standardized IEP is being promoted as a way to help school districts align IEPs with the redesigned curriculum and simplify reporting. However, common data entry standards may limit what types of data can be included in the IEP. The risk is that the content of the IEP will be driven by the tool used. This may occur at the expense of a teacher’s judgement, and their ability to collaborate with colleagues to best meet a student’s individual needs.

In further developing BCTF positions in this area, questions to consider include:

- What does “standardization” look like across the diverse school settings across the province?
- What is the difference between systems (e.g. reporting, IEPs) based on “standards” and ones based on “standardization”?
- What is necessary to uphold teacher autonomy in the context of “standardization” in BC?

## Personalization

In 1968, the BCTF conducted a year-long consultation on public education with teachers, students, parents and administrators across the province. The very first conclusion made in the introductory remarks to this report was that education should be “personalized” (BCTF, 1968). Fast-forward to 2017 and the Ministry of Education states that “personalized learning is at the heart of the new curriculum” (BC Ministry of Education, 2017). This could be taken as a recognition (almost 50 years later!) of what teachers are already doing: using their professional judgement to make decisions as to how to meet the needs of the diverse students within their classrooms. However, as previous BCTF analysis has illustrated, the Ministry has not clearly defined what “personalization” means (Hansman, 2016; Kuehn, 2011).

What is evident is that personalization is positioned as a key component of “education for the 21st century.” As such, it is crucial to pay attention to critiques that dominant conceptions of 21st century learning position technology as “*the* agent to personalize learning” (We The Educators, 2017, p. 9). In this technology-driven form of personalization, “tasks have been personalized for kids, not created by them” (Kohn, 2015). This raises questions such as: What happens to student-centered learning that occurs outside of digital spaces? Will this learning be considered “successful,” or will teachers and students be penalized for not having “personalized” learning in the “right” way?

Amid growing critiques of technology-driven personalized learning (Herold, 2017), there is existing BCTF policy that can help members navigate this complex area. The BCTF believes:

“That information and communication technologies be used as tools that are integrated into curriculum and pedagogy, and are provided in an age-appropriate manner, when their uses enhances education.” 51.A.01.14 (BCTF, 2017d, p. 158)

It is thus the teacher who will use their professional judgement to decide when, and whether, to use technologies as tools for enhancing teaching and learning.

“That technology be integrated into curricula, when in the member’s judgement it is appropriate to student needs.” 51.A.01.09 (BCTF, 2017d, p. 158)

“That the inclusion of new technology into the curriculum and classroom should enhance the personal and instructional relationship between teacher and student.” 51.A.01.10 (BCTF, 2017d, p. 158)

At the same time, even if technology is successfully positioned as a teacher-driven tool, there are ongoing concerns as to how “personalization” may dramatically change the landscape of public education in BC. One example is the area of inclusive education. According to an interview with then Superintendent of Learning Rod Allen in March 2012, “in a 21st century personalized world, I’ll tell you what a special education looks like if you can tell me what a ‘normal’ education is” (Global Education Leaders' Program, n.d., p. 4). Here, personalization potentially

becomes the vehicle for the “deategorization of special needs education” (p. 4). While special needs designations evolve, the BCTF believes that “special education designations are crucial in allowing governments and school districts to identify student exceptionalities and special needs and to accordingly drive funding and supports into the public school system and classrooms to support students and their teachers” (BCTF, 2017e). These supports are a necessary condition for “personalization” that meets the needs of all learners.

Part of the difficulty in critiquing “personalized” learning is that the “term has become a blank slate on to which supporters and skeptics alike project their own hopes, fears and beliefs” (Herold, 2017). This makes it even more important that there is a clear, teacher-led, definition of personalized learning. This definition should take into account questions such as:

- How can “personalized” learning be defined so that it builds on and supports the fundamental goals of public education, including equity and inclusion?
- For teachers, what is the role of technology in personalized learning? How do teachers articulate technology as a tool within the specific context of personalized learning?

## Privatization

Privatisation is a “neoliberal concept that touts parent choice and personalization but, at the same time, is rooted in market competition and standardization” (We The Educators, 2017, p. 7). The BCTF has multiple policies opposing the privatisation of public schools, believing “that equity and opportunity for all through public education is essential to maintain a democratic society and the privatization of education creates a two-tier education system and threatens democratic values and practices, as well as social equity” 29.01 (BCTF, 2017d, p. 121). Privatisation can have “many faces” (Robertson, 2005), including the influence of knowledge sector companies on the direction of 21st century learning in BC (Ehrcke, 2013; Gutstein, 2012; O’Neill, 2010).

BCTF analysis of recent trends in Distributed Learning (DL) program enrollment and funding provide one example of how “personalization” may be coupled with “privatisation.” The Ministry describes DL programs as a “critical component to personalized learning,” stating that these programs use technology to increase “student access, choice, and flexibility outside of classroom schedules.”<sup>2</sup> However, there is a stark difference between the enrollment in, and funding for, public and independent DL programs (BCTF, 2017c). Within the public system, there has been an overall downward trend in the number of students in DL programs over the past ten years. In comparison, the number of students in DL programs in independent schools has more than tripled over the same period. A significant part of this increase is students with special needs. Looking specifically at funding, between 2010–11 and 2015–16 grants for DL special

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<sup>2</sup> See: <https://www2.gov.bc.ca/gov/content/education-training/administration/kindergarten-to-grade-12/distributed-learning>

education programs in independent schools steadily increased by a total of \$17,843,200 (an increase of 236.9%). Furthermore, while in 2010–11 the grant for DL special education made up only 24.4% of the total grant received by independent schools for distributed learning, by 2015–16 the special education grant made up 43.0% of distributed learning grants. This increase in DL enrollment coincides with the under-funding of public education over the past 15 years by the previous government, increased class-size and no limits on class composition, removal of high-incidence targeted funding, and removal of ratios resulting in fewer specialist support/resource teachers in public schools.<sup>3</sup> While a direct correlation is overly simplistic, the trends point to how students with special needs may be pushed out of public schools and into independent DL programs.

In this complex and rapidly changing landscape of privatization, it is key to engage questions such as:

- In what ways might technology enable the privatization of public schools?
- What needs to be in place to mobilize technology in support of the core values of public education and resist privatization?

## Datafication

As part of a “wider cultural shift toward the acquisition and analysis of data via digital technologies” (We The Educators, 2017, p. 10), there has been an increase in data collection activities within education. This includes, for example, the proliferation of digital reporting tools across the province (BCTF, 2017b). While these systems may facilitate communication between parents and teachers, and enable timely feedback as part of assessment for learning, the systems also produce large data sets that can potentially be used by companies to market educational products<sup>4</sup>. This is part of datafication, a process whereby you can take “any and all aspects of the world and turning them into data” (Kosciejaw in We The Educators, 2017, p. 11).

Datafication raises multiple questions related to responsible data collection and use within the education sector. These include: Who owns student data? Who can access it? How will data be used, and for how long? BCTF policy recognizes the importance of protecting the privacy of students and teachers when collecting and using data. The BCTF has policy related to the retention and use of student data:

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<sup>3</sup> The 2002 stripping of language addressing these conditions from teachers’ collective agreements was deemed illegal by the Supreme Court of Canada in November 2016.

<sup>4</sup> For example, a recent article in the New York Times raised questions as to how, and for what purpose, Google markets educational products, and to what extent student data is accessible to the company. See: <https://www.nytimes.com/2017/05/13/technology/google-education-chromebooks-schools.html>

“The databases of information on students maintained after K–12 attendance is completed should be limited to a narrow, predefined range of information.” 51.F.03.03 (BCTF, 2017d, p. 160)

“That databases of personal information on students should not be used for data mining or in data matching with personal information on students held in other ministries or other government databases.” 51.F.03.05 (BCTF, 2017d, p. 160)

There is also specific policy in relation to digital reporting. The BCTF believes that:

“digital programs for reporting and communication with parents should only be used when Privacy Impact Assessments have been developed and district, school, and classroom policies have been defined and are followed.” 51.C.09.01 (BCTF, 2017d, p. 159)

“district, school, and classroom policies should include definitions of how the data will be used during the time that it is being collected (e.g. a school year), whether it will be saved and accessible after the current use, and, if so, who has access to that data, and a plan for how and when the data will be destroyed.” 51.C.09.02 (BCTF, 2017d, p. 159)

“all data created by a student should be recognized as belonging to the student, and not to the provider of the program, nor should it be used for any commercial purpose nor linked to other education, government, or commercial databases.” 51.C.09.05 (BCTF, 2017d, p. 159)

However, despite these positions, a recent survey of BCTF members shows a critical gap in training on privacy issues related to the use of digital reporting tools, with 85% of respondents having no or inadequate training on privacy issues/concerns related to the digital reporting system they were using (BCTF, 2017b). This is particularly troubling given that 26% of survey respondents report having *no* autonomy in relation to choosing reporting tools (BCTF, 2017a).

Overall, educational data can be an important indicator of system-level performance and be used provincially to make informed decisions in relation to curriculum development or in-service activities, for example. However, there are very real concerns that private companies are accessing educational data without explicit user consent (We The Educators, 2017). Furthermore, and in line with BCTF opposition to the ranking of schools by the Fraser Institute, large sets of educational data “eschew context” and can lead to the “depersonalization of education” (We The Educators, 2017, p. 12) as well as further marginalizing already disadvantaged communities.

Resisting the datafication of education requires engaging questions such as:

- What parameters are necessary to ensure the responsible collection and use of educational data?
- What is the relationship between “datafication” and teacher autonomy?
- What are the tensions between “datafication” and the child’s right to be forgotten?

## **Educational technologies, deprofessionalization and the threat to teacher autonomy**

Globally, we are in a moment when there are “increased pressures to standardise learning, narrow curricula, depersonalize student learning and, ultimately, undermine and deprofessionalize teaching” (We The Educators, 2017). The question is thus not whether these pressures exist, but how they will play out in the diverse landscape that makes up teaching and learning in BC.

What is unchanged in this rapidly changing landscape is the teacher’s right “to determine methods of instruction, use of technology, planning and presentation of materials, and the appropriate assessment and evaluation instruments and strategies” 3.J.01.3.8 (BCTF, 2017d, p. 30). Teachers are already actively negotiating the roles of educational technologies in their daily pedagogical practice and decisions. They are also engaging in often difficult conversations as to how to best use technologies to meet the needs of their students. The task is now to mobilize these conversations, asking questions such as those addressed in this report. The answers are crucial for supporting members to use their professional judgement when choosing when and how to use educational technologies in ways that support the core values of public education.

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