

	Pre-Digital (pre 2004)	Teacher Access / Minimal Student Access (2004-2008)	Teacher Access (Mobile) / Projectors available / Some student access / Student Access at home (2008 – 2013)	Teacher Access (Mobile) / Digital Presentation / Full student access (2013 - ?)
Context	1990 – 2004 Developed an extensive Learning Resources Center (LRC) to provide centralized books, movies, resources for teachers. This model allowed content to be vetted through a district wide lens and teachers to sign out resources when they needed them. Resources were sent via “the pony” and arrived within the week.	West Vancouver provided desktop computers for all teachers primarily in response to a new student information system (BCeSIS) and teachers required access to desktop computers for their administrative needs (attendance, report cards, etc). Computer labs started to be replaced with student laptop carts so access to computers would be available in the classrooms and in the learning context; Increasingly households have a computer but some concern about “the digital divide” and that not all computers have or can afford computers.	West Vancouver provided desktop computers for all teachers; student laptop carts available for students; removal of computer labs except in secondary schools; Emergence of personally owned devices and mobile computers including the popular iOS devices (iPhone, iPads, etc) which made access increasingly available. District wide wi-fi completed although bandwidth and connectivity increasingly an issue. Widely believed that all homes have computer access.	Models of BYOD emerging (Bring your own device) including Caulfeild Elementary’s iDec program. District provides all teachers with access to mobile devices; and eventually all students have a device that connects them to the internet at all times. District provides a “platform” for learning and connecting and teaching and learning leverages digital opportunities.
Content	Relied on what we owned or borrowed Required long shelf life and durability Teacher knowledge essential content changed slowly	Digital resources and content available to teacher, but not presentable to students, except in small pockets Additional newer resources available, some mistrust of reliability (Wikis, blogs) Ability to accelerate creation of resources Teachers knowledge essential	Digital Resources available to students and teachers: databases, digital newspapers, journals online, videos, images, simulations, virtual labs Teacher posting teacher generated digital resources for student access. Teaching students to discern reliability – embracing wikis and blogs Teacher knowledge of process is	New Student/content and Teacher/content relationships. Digital Resources available to students and teachers; because access in class these resources are available always - this changes the “nature of information” into a dynamic, just in time resource. Students are just as able to find content online as teachers students begin to create and generate content for the

			essential Teacher knowledge of content is essential as now need to design authentic learning tasks/environments and ask questions that students can't Google answers to Students are constructing questions / partners in designing learning - as guided by teacher Teachers able to present digital content Student use of teacher computer to present content Single user (Teacher/Student) interface with manipulating virtual simulations/labs in front of class Increases student plagiarism from the web Students with in school access - recording of notes - taking of pictures/video's for projects/notes - searching web for answers - Device based organizers	classroom (instructional) and beyond (real world) networking and collaboration online provides new forms of content
Learning	"class" paced Listening, reading, group work, assignments, projects	Class paced Some improved "relevancy" and timeliness Same learning activities Increased quality and quantity	Class paced just in time "enhancement" through projectors, access to web based video's/pictures/websites	with information available in new modalities and "just in time," learning opportunities shift to allow students to actively explore and engage in learning learning becomes increasingly

			Increased relevancy to the real world and further increase in quality and quantity	social and networked inquiry as a teaching and learning concept provides framework for exploring and learning ideas multiple learning pathways begin to emerge; become more individual paced and less class paced Students are competently reflexive learners - have tools at the ready for reflecting on and adjusting their learning needs/styles tasks for learning must change to recognize expansive nature of internet and the reality of distractions
Assessment	"of learning" Completion, criteria established criteria not always apparent to students	Technology made grade books easier Similar assessment model Changing and modifying assessment rubrics easier	Using criterion-referenced assessments to enable students to "show what they know" Leveraging peer-to-peer coaching with technology: commenting on blogs, offering feedback, connecting with students in other districts Instantaneous formative feedback from web based multiple choice questions	Leveraging peer-to-peer coaching with technology: commenting on blogs, offering feedback, connecting with students in other countries/regions, Clickable Criterion pull up illustrations of the criteria: demos, exemplars, support in reaching it Report cards will be clickable and report out on criteria: clicks connect parents/clicker to example of student work that shows that level of achievement

Emerging Practice	Differentiated instruction Group work / cooperative learning Rubrics Multiple Intelligences Bloom's Taxonomy	Teacher communication with parents and students changing (email, websites) Just in time content	Students use computers at home for research and assignment completion	Learners connecting with community in authentic way Production of content to be viewed/used by communities Learning is public and valued by community Students see teachers as practicing learners
Observations	There were a number of initiatives aimed at personalizing learning and increasing relevancy and engagement. These were valuable contributions to classrooms and many teachers developed the skills required to utilize group work, differentiate instruction, provide clear assessment criteria, etc. The challenge at this time was the physical labour required to complete this work.	With teacher access to technology it didn't change the learning process of students, but did accelerate the amount of learning available and improve the quality of the learning resources. An example is the change from copying down questions and then answering to answering worksheets. In addition teacher mark books re-inforced the grading practices in schools and made it easier and effective for teachers to weight averages, calculate percentages, etc. Home access to technology begins to change how students engage in learning outside of school, including increased distractions, increased social connectedness, challenges to academic integrity, and increased exploration of topics	With mobile access and projectors, there is an opportunity to bring "just in time" learning content to students. This doesn't translate into a significant change in learning process as students are still required to connect with content through a single or static source (paper, lecture, text) and provide demonstration of learning through a prescribed method (test, assignment, paper, etc). Home access is increasingly connected to social environments, both positively and negatively impacting learning at home. Students report a high use of computer usage at home to complete work, causing in class time to shift as students wait to get home to do work.	Complete access fundamentally changes the learning process for students. The flattening of the classroom whereby a student can find information as easily as the teacher changes the possibilities of depth and breadth of learning. Student access in class changes how the class must be structured. An awareness of "technology as a distraction" must be acknowledged, and learning must therefore be highly relevant, engagement and rigorous to ensure that time on task is achieved. Increased connections through technology to both content and other people provide a rich environment to expand depth and breadth of learning. A focus on rigour and ensuring student precision emerges as increased ability for students to

				veer off learning path

[U1]Shouldn't this be called accessibility? or technology? or resources? If resources you could add a note about libraries having digital collections now – so most of what students and teachers can access isn't in the dusty stacks.

[U2]not totally true in our school: they are mostly used by ICT / photo classes but there is some time that other classes can book them. Also, have lots in library.

PLN speeds need to be increased to allow for increased internet traffic due to students bringing in their own devices to school