



INITIATIVE RATIONALE

by Jeremy Van Nieuwenhuyzen, Technology Director
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We would like to give you, as parents and constituents, some information about our Innovations for Learning initiative and some of the history behind the decision that was made by the Board of Trustees to implement 1:1 technology at Ontario Christian. OC Superintendent Ryan Groen has stated that information and transparency lead to trust. The goal of this document is to be transparent in providing parents and constituents with the information and background of the process and progressive steps over the last several years that have brought us to this point. Please feel free to direct questions about what you read to me, John Voortman, or Ryan Groen. I also have copies of all of my data resources (sample below), if you would like to look at them and give me your feedback.

HISTORY

Several years ago, OC had a technology committee comprised of Tim Hoekstra (HS Principal), Darin Slocum (Systems Administrator), Amy Munive (elementary art and computer teacher), Mike Wiersma (elementary computer teacher), Bob DeGroot (MS Principal), Mavis Zondervan (librarian), Mike Fisher (OC alum, parent, and consultant), Dave De Koekkoek (board member), and me, Jeremy Van Nieuwenhuyzen, (at the time a HS Spanish teacher). Before we even started our relationship with Beyond Technology in Education, the group had discussions of what a 1:1 laptop program might do for Ontario Christian.

Five years ago, we began a relationship with Beyond Technology in Education (BTE), which entailed assessment of teachers' abilities and comfort levels, integration of technology into the curriculum, and 30 hours of professional development training in technology. This program was not meant to be the entirety or the ultimate goal of our long-range technology plan. It was meant to be a springboard that provided common vocabulary and a basic level of training for all teachers. At the end point of that 3-year contract would have been a natural time for us to go to 1:1 laptops, since we had ready-made lesson plans that included technology integration directly into the curriculum.

THE FIRST VISIT TO A 1:1 SCHOOL

There were other factors involved, however. Even as Technology Director, I was very skeptical that putting laptops in the hands of every student would make a significant enough positive impact on education to justify the cost. John Voortman and I had planned a trip to Holland, Michigan to talk with the administrators, teachers, and board members at Holland Christian about OC's online program. While we were there, we planned some time to get an overview of their 1:1 program.

Honestly, I was planning on being underwhelmed and having my suspicions confirmed. Going into the visit, I saw it as nothing more than a public relations tool. However, based on my observations in several classrooms and conversations with students, teachers, and administrators, I could immediately see the impact on student engagement and the student-centered nature of their classrooms. The superintendent at Holland Christian, Glenn Vos, has been a teacher, principal, or superintendent in Christian schools for 40 years (he was at OC in the early 80s). I taught under his leadership for 1 year when we were both in Iowa. His statement was that 1:1 laptops have brought more benefit to education than any other single change he has observed in all of his years in Christian education. This spoke volumes to me, since he is very well respected in the CSI administrative community. Ryan Groen, superintendent, was also highly impressed by the educational value of 1:1 technology when he later visited Holland Christian.

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FURTHER RESEARCH AND VISITS

Needless to say, I had changed my mind somewhat. I felt that 1:1 could make a major positive impact on Ontario Christian. However, there was still the matter of doing due diligence and then convincing others. Being a lifelong learner, one step I took was to become a voracious consumer, analyzer, and synthesizer of research and data from a wide variety of sources (see a representative sample below), including books, journals, blogs, onsite visits, and phone/email conversations.

One of the steps in bringing others on board was to get people out to see it in action in other schools. So the following people were involved in site visits to 1:1 schools (K-12):

- Luke Blacquiere
- Kristen Hoekstra
- Megan Moore
- Aaron Genzink
- Tim Hoekstra
- Bob De Groot
- Darin Slocum
- John Voortman
- Ed Talen (board member)
- Ryan Groen (visited Holland Christian after having signed his contract with OC)

As we went on these visits, I tried to find out where the holes were in my theory that this would be a good change for Ontario Christian. So I debriefed with those who went along. All of them expressed concerns about the need to do things right, which was good to hear. Several of us went to a school where the program was poorly implemented, which had obvious consequences for the program and its effectiveness. Their intention was to use it as merely a marketing tool, so the point was not to affect education.

RESULTS IN OTHER SCHOOLS WHO HAVE IMPLEMENTED 1:1 TECHNOLOGY

- **Nationwide, the vast majority of schools who implement 1:1 are public schools. For those schools, the impact of a 1:1 laptop initiative includes:**
 - Fewer discipline issues
 - Increased attendance
 - Higher graduation rate
 - Teacher attendance
 - Slightly higher test scores
 - The greatest beneficiaries of a 1:1 program in terms of increased achievement were in these two groups: students with academic difficulties and high performing students. Students who previously struggled with school felt that they could learn at their own pace to a greater degree, making information more accessible to them. Students who had been doing well felt that the increase in self-paced learning that 1:1 technology facilitates allowed them to push beyond the minimum expectations.
- **Teachers in these programs also reported:**
 - The #1 improvement among their HS students was in their ability to write well. This was reported in several cases, some of which included control and experimental groups of students.
 - Student motivation and engagement in their learning improved dramatically.
 - Critical thinking and problem-solving skills were enhanced. This was in large part due to the fact that dissemination of information could happen much more quickly, therefore allowing teachers more time to discuss and bring the higher-order thinking skills into play.
 - Collaboration increased.
 - Classroom management and behavior issues decreased.

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RESULTS IN OTHER SCHOOLS... (CONT'D)

- **Among Christian or Catholic schools that we talked to:**
 - Enrollment and interest in attending the school increased in several cases
 - A few have experienced some drop-off in enrollment in recent years, but they believe the effect of the economy would have been much higher if they had not been a 1:1 school.
 - As difficult as it is to quantify in changing economic conditions, the administrators all stated that their student retention rate is higher than it would have been without a 1:1 program.
- **Rationale that is very difficult to quantify:**
 - Relevance - Students from the studies reported classes in which technology was used more often are more important in their opinion than classes where it was used less often.
 - 21st Century skills and discernment – Students need to be increasingly taught how to consume and produce media from a Christian worldview. In general, parents feel ill-equipped to teach these skills and most churches are not equipped or positioned to do this sufficiently. Our students (as good as they are) are not all going to be able to make connections between their faith and their technology usage. We need to help them make those connections.
 - Christian leaders – we need to produce students that have the skills to become leaders. The job force they are graduating into requires a high level of technology skill, and that need is steadily increasing.
 - Student-centered learning – There is an appropriate time and place for the teacher to be the center of the classroom. What technology helps with the most is the rest of the time.
- **Please visit these websites for research results:**
 - http://www.k12blueprint.com/k12/blueprint/story_study_shows_benefits_of_1_1.php
 - http://www.projectred.org/uploads/PREP11/Project_RED_Presentation_121010.pdf

TRAINING AND PLANNING

Another thing that parents need to know is that the administration and Darin Slocum and I are committed to providing a lot of opportunities for faculty in-servicing for the changes we will experience next year. In fact, this in-servicing is already well underway. Here are some opportunities that we are planning on:

1. We are going to work on scheduling for all 7-12 teachers to be able to go and visit a school that currently has a 1:1 program in place so that they can visualize what it will look like.
2. We will be implementing Tech Tuesdays, which will be before school twice per month on each campus, and offer a great opportunity for teachers to get prepared and feel comfortable with the possible changes that are coming our way.
3. In faculty meetings, we will be offering Q&A sessions with technology staff, so teachers can ask anything you're wondering about this initiative, implementation, etc.
4. We are planning to offer some training at future faculty meetings and/or half-days for the foreseeable future.
5. We will be hosting Q & A sessions for the community to get answers to their questions.

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The following are a representative sample of the data sources that we have consulted:

SITE VISITS

- o Holland Christian (John Voortman and I – Ed Talen later)
- o Fislser Elementary in Fullerton (Darin Slocum, Bob DG, and Jeremy VN)
- o Oswalt Academy in Walnut (Darin, Bob DG, Aaron Genzink, Megan Moore, and Jeremy)
- o Capistrano Valley Christian Schools in San Juan Capistrano (Tim Hoekstra, Luke Blacquiere, Kristen Hoekstra, and Jeremy VN)
- o JSerra Catholic School in San Juan Capistrano (Tim Hoekstra, Luke Blacquiere, Kristen Hoekstra, and Jeremy VN)
- o Chaminade Preparatory Academy in West Hills (Darin Slocum and Jeremy VN)
- o Unity Christian High School in Orange City, Iowa (Jeremy VN)

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