



## MEMORANDUM

**TO:** Superintendent Greg Baker

**FROM:** Mike Copland, Deputy Superintendent  
Kurt Gazow, Executive Director of Technology  
On behalf of the **Student Technology Think Tank**

**RE:** Student Technology Think Tank **Recommendations and Analysis**

**DATE:** October 21, 2015

We are pleased to present the following document that provides information about the Student Technology Think Tank process and outlines recommendations, analysis and next steps related to an upcoming replacement technology levy.

The document is organized into five sections:

- I. Introduction and Context
- II. Scope of Work and Schedule
- III. Summary of Student Technology Think Tank Work and Input from Shareholders, Neighbors, Families and Staff
- IV. Recommendations, Analysis and Financial Impact
- V. Next Steps

### **I. Introduction and Context**

In 2012, voters approved a replacement technology levy, which provided critical funding for technology programs, staff and systems in the Bellingham Public Schools. Over the past three years, investments have been made in all schools across Bellingham, from renewing student technology, providing time and staffing for professional development, growing Library Information Technology programs, queuing up new instructional technologies and making overdue upgrades to critical network infrastructure. While maintaining a focus on supporting today's program needs, we've continued thinking about and preparing for the future.

In planning for our 2012 technology levy, and in efforts spanning the past three years, Bellingham Public Schools has sought out and partnered with regional and national leaders in K-12 student technology initiatives to learn from their experiences and plan for our own readiness. As we drew closer to the renewal of our technology levy, our district's leadership wrestled with whether our system was ready for a higher commitment to student technology resources for instructional use, such as a '1:1 program'. A 1:1 program refers to a technology initiative that would put a digital device such as a laptop or tablet in the hands of every (or most) students, and be integrated by teachers and other instructional staff for instructional purposes. Such programs are increasingly prevalent across the United States, as technology for instructional use rapidly advances.

## **II. Scope of Advisory Group's Work and Schedule**

The Student Technology Think Tank consisted of the following members:

- Co-Chair Mike Copland, Deputy Superintendent
- Co-Chair Kurt Gazow, Executive Director of Technology
- Simone Sangster, Assistant Superintendent, Finance and Operations
- Jackie Brawley, Manager, Communications and Community Relations
- John Getchell, Operations Manager, Education Technology
- Brian Pahl, TOSA, Education Technology
- Chuck Devange, TOSA, Mathematics
- James Everett, Principal, Squalicum High
- Matt Whitten, Principal, Birchwood Elementary
- Paul Clement, Teacher, Bellingham High
- Tommy Lingbloom, Teacher, Kulshan Middle
- Tara Vaughan, Teacher, Kulshan Middle
- Lynnelle Larson, Teacher, Shuksan Middle School
- Nancy Hudson, Teacher Librarian, Geneva Elementary
- Jaylani Evans, Teacher, Geneva Elementary
- Molly Foote, Teacher, Wade King Elementary
- Meg Weber, Executive Director, Technology Alliance Group
- Erin Graham, Parent
- John Farquhar, Parent
- Amanda Blue, Parent
- Jake Squires, Parent
- Eric N., Student, Sehome High
- Leigh H., Student, Kulshan Middle
- Madeline E., Student, Kulshan Middle

The Student Technology Think Tank (ST<sup>3</sup>) was commissioned by Superintendent Greg Baker to focus on a number of key tasks. The ST<sup>3</sup> was instructed to read and discuss the most recent available data and research on 1:1 programs. To inform this work, the ST<sup>3</sup> engaged in

discussions with and visits to schools and districts recognized locally and nationally for their 1:1 programs. From the research, visits, discussions and learning, the ST<sup>3</sup> was instructed to generate a recommendation to Dr. Baker which would validate whether our district and community supported a 1:1 initiative, provide guidance on considerations impacting budget and schedule, and advise as to standards or best practices the committee felt were critical to a successful program, if such were advised. This report represents the group's response to that charge.

For purposes of this document, a number of terms are used to refer to different groups levels of students. For clarification, those terms are:

**Elementary Students:** Grades PK-5

**Intermediate Elementary:** Grades 3-5

**Secondary Students:** Middle(Grades 6-8) and High (Grades 9-12) Students

**Middle School Students:** Grades 6-8

**High School Students:** Grades 9-12

### **III. Summary of Student Technology Think Tank Work and Input from Staff, Families, Students, Community Members**

The decision process leading up to the development of these recommendations included a series of meetings of the Student Technology Think Tank (hereafter referred to as ST<sup>3</sup>), where input was solicited from the broadly representative group, research and examples were discussed, and community, student and staff survey information was reviewed and vetted. Resulting data from the staff, student and community survey that were shared with the ST<sup>3</sup> are included here as *Appendix A*. During the course of meeting, the committee also heard from guest speakers from the Microsoft Education Group, who offered insights about the work underway to develop 1:1 programs in the network of Microsoft Innovation Districts. Later in the process, team members took a two-day field trip to two local districts that have implemented 1:1 programs in recent years. They observed in classrooms and heard from school and district leaders about the dimensions of their work and progress to date. These visits provided important insights for many members.

The ST<sup>3</sup> met throughout September and October. For each meeting, we've included a brief recap of agenda items and focus:

9/3/2015	Introductions, Goals Recap, Initial Work & Planning
9/10/2015	Review and discuss reading, research Discuss potential levy impact of a 1:1 program (devices, staffing, PD)
9/17/2015	Guest Speakers: Sonja Delafosse, Mark Sparvell from MS Education group; 1:1 experiences from the field both regionally and internationally

- 9/23/2015 Community perception survey data shared and discussed  
Prepare for site visit to Seattle area school districts, and MS education
- 9/30/2015 Field Trip --AM: Sammamish HS; classroom tours  
--PM: Kent SD PD & implementation, Kent Meridian visit
- 10/1/2015 Field Trip --Student Technology Seminar  
Microsoft Executive Briefing Center
- 10/5/2015 Recap committee work, visits, discussions  
Determine level of consensus among committee members  
Discuss draft recommendation dimensions  
Take a value vote among committee members
- 10/8/2015 Draft Recommendations shared with committee
- 10/20/2015 Draft Recommendations including financial impact shared with committee

#### **IV. Recommendations, Analysis and Financial Impact**

The ST<sup>3</sup> committee met and processed the various sources of information and evidence noted above. We were charged with answering questions in two major areas. First, we considered whether Bellingham Public Schools should move forward with a 1:1 initiative and ask the community to support this work through an up and coming technology levy.

Our group had unanimous support for this recommendation, which provided a clear directive based on their work and learning. We were careful to elicit any cautions or concerns from the group that should be factored in to a decision to move forward. One over-arching issue shared by the group was the importance that Bellingham “do it right” and use the lessons we learned from other examples we studied to take advantage of the best practices, and avoid those that appeared to work at odds with an implementation of this kind. For example, members emphasized the importance of considering the size of the additional financial burden placed on the community (e.g., “*carefully consider amount*”) and the critical importance of leading with a strong instructional improvement agenda (e.g. “*There needs to be a clear focus on instruction and how the emphasis on instruction will be enhanced*). Comments strongly favored the incorporation of digital inking devices, explicitly stating that if digital inking was not a component of the adoption, we should not move forward.

**RECOMMENDATION 1: To improve teaching and learning and build the capacity of our students and teachers, Bellingham Public Schools should move forward with efforts to provide a 1:1 technology computing device to students; funding for such a program should be included in a Technology Levy request to the voting public.**

\*\*\*\*\*

Given the answer to the first question, we were further charged with a second set of questions to assess the committee’s agreement with various dimensions of how to do this work in Bellingham Public Schools.

Comments from the group suggested that those who disagreed or were uncertain generally felt comfortable moving ahead with the 1:1 initiative in some form, but raised questions about whether all three levels could be done well, questioned the process of the roll out, and raised concern about issues of fairness of one school being favored over others in the pilot process.

**RECOMMENDATION 2: Bellingham Public Schools should incorporate a pilot school strategy to begin the work in implementing a 1:1 program. The district should consider fairness, equity, and the readiness of school leadership, staff and facility in selecting pilot schools. A 1:1 program should be present at three levels (intermediate elementary, middle, and high school) as part of this initiative.**

\*\*\*\*\*

When planning for a 1:1 program at a District school, ST<sup>3</sup> advises a whole-school implementation versus implementing by grade level. All members favored this strategy. Those who favored this recommendation recognized that implementation that focused on, for example, grade levels across the whole system, would create situations where high school students would find themselves in classrooms where some students had the new technology and some did not. Overall, the committee felt the most powerful instructional approach would favor whole school adoption across all grades in one school. The committee emphasized the need to provide further clarity and transparency of the pilot selection framework, and method of determining leadership and staff readiness, when finalizing site selection criteria.

**RECOMMENDATION 3: Bellingham Public Schools should focus implementation of the 1:1 initiative on whole school adoptions over a period of years, ensuring that all students within one school who are recipients of the 1:1 program receive the devices simultaneously.**

\*\*\*\*\*

We asked the committee to further provide perspectives on what criteria should be used to determine which schools pilot the 1:1 technology program. The committee was unified around the idea that staff and school leadership needed to be fully agreeable to implementing the new program, and that this was an important criterion

The only comments to the contrary came from a couple members who said that leadership and staff buy-in was “*not a deal breaker*” and that “*not necessarily 100%*” buy-in was needed. They cited examples heard at the Sammamish visit that some teachers did lag behind in

implementation, but that having students engaged in using the new devices across many other classrooms eventually helped those late-adopters embrace the change.

In addition, the committee weighed in on considerations of equity as a factor of the choice of schools to begin the program.

We also assessed the level of agreement among committee members about how the devices should be implemented in different grade levels. The committee unanimously supports the idea that both high school and middle school students should be provided with 1:1 technology that they can carry back and forth between home and school. The potential instructional benefits for secondary students are apparent in the examples we observed. For the elementary schools, the committee recommends that the district continue to explore the nature of new technologies as the initiative starts to roll out, and implement a 1:1 strategy in the upper elementary grades 3-5. The devices provided at grades 3-5 should likely stay in the school (not be “take home”), but be readily accessible for students during the school day.

The committee strongly resonated with a strategy seen at Kent School District to ensure that Internet connectivity is a consideration to further enhance the power of a 1:1 program. A strategy of community based Internet kiosks, combined with check-out mobile hot spots, was used to support students without home access to the Internet. The committee advised pursuing different connectivity strategies with local partners as part of a 1:1 program to ensure maximum function of a take-home 1:1 program.

Finally, the committee recommends that the district pursue the 1:1 effort in the earlier elementary grades only as research suggests is developmentally appropriate. Some advice from those familiar with early childhood education in BPS suggests that the district not push 1:1 into the hands of children at an age that is developmentally inappropriate.

**RECOMMENDATION 4: Bellingham Public Schools should begin the 1:1 implementation in schools with high support from school leadership and instructional staff, and use socio-economic considerations of equity as a strong secondary consideration for choosing the pilot schools for implementation. Further, BPS should provide the 1:1 devices for students to take home in the high schools and middle schools, and provide school-based devices for the upper grades (3-5) in the elementary schools.**

\*\*\*\*\*

The committee feels that strong consideration should be given to student and family online safety, including the adoption of a clear/concise digital citizenship and online safety curriculum.

**RECOMMENDATION 5: Bellingham Public Schools should take steps to ensure online safety for students, and implement an approach to student digital citizenship that prepares every student for safe use of the new 1:1 devices both at school and in the community.**

\*\*\*\*\*

We asked the committee to reflect on whether staff should receive equipment relating to a 1:1 program during the prior school year in order to develop familiarity and expertise with the devices. There was 100% agreement on this point.

A second question focused on the extent to which the investment should be made to support not only the devices themselves, but also a robust technical support and professional development infrastructure to provide strong support to a 1:1 initiative. Specifically, we asked committee members to provide input on the inclusion of:

- Certificated Instructional Tech Coach at each 1:1 school to lead school-based professional development.
- A dedicated Support Tech for each secondary building teamed closely with the Instructional Tech Coach to address technical support issues.
- Establishing a student help desk at each secondary school to augment tech support for staff and provide peer-support for students.

All but one member was in strong agreement that the three dimensions of support were necessary and important. The committee was particularly impressed with instructional coaching, coupled with tech support staff and with the student help desk efforts at Sammamish High as a model for high quality implementation support.

Questions or concerns about this dimension of the project focused mainly on the expense associated with a high level of personnel support. One member noted that this approach was, *“Very expensive. I’m not sure a tech support would have to be in building if you have loaners.”*

**RECOMMENDATION 6: Bellingham Public Schools should invest heavily in the professional development of staff members in this new 1:1 technology effort as they implement in support of high quality instruction, including the opportunity for staff members to receive and learn how to use the 1:1 devices well in advance of students. Further, we recommend a three-part approach to ongoing support of the 1:1 initiative that includes: (1) support for teachers from instructional technology coaches; (2) support from technical staff who can team with the instructional support coaching, ensuring teachers are using the new devices seamlessly in the context of their classrooms, and (3) a strong student help effort in the secondary schools to foster ongoing peer support for students using the new devices.**

\*\*\*\*\*

The committee strongly recommends that a computing platform which utilizes a flexible user interface which supports both traditional keyboarding and a pen-based interface and digital ink be chosen as the staff and student device platform. The incorporation of digital inking creates added use opportunities in service of high quality instruction. ‘Digital ink’ is a type of technology or user interface that allows handwriting and written annotation to be integrated with more traditional typewritten content. This interface significantly increases the flexibility of a 1:1 program, allowing flexible student and staff interaction across multiple content areas.

In classroom observations at Sammamish, the committee observed the power of the combination of a student/teacher interaction and peer collaboration by using the OneNote tool combined with a digital ink interface. Students were able to seamlessly interact with their teacher and each other in an environment allowing flexible expression of ideas through typed text, written notes, or illustration. Teachers were able to efficiently provide continuous feedback to students on their work, both through individual notation and classroom display. Loss of work or late homework was also reduced given the common environment where student work and collaborate within a configuration of OneNote called ‘Class Notebook’.

The committee also considered whether a common classroom interactivity and collaboration platform, such as Microsoft OneNote, should be adopted on a district level to ensure a common, high-quality experience by all students and staff participating in the program. Nineteen out of twenty-one members indicated strong support for this approach; two members expressed uncertainty for consideration.

One member raised a set of questions about whether moving to a common platform would really work for everyone, stating *“I’m mixed on this. Everyone learns a little differently. There is no one size fits all. I place less importance on this. What if something better comes along? Teachers and students should have some freedom.”*

Given this analysis, we strongly believe the potential to impact instructional practice needs to be supported with a common instructional platform. The use of the Microsoft One Note program at Sammamish High School gave committee members a strong example of what is possible for instruction through the use of a common platform school- or district-wide.

**RECOMMENDATION 7: Bellingham Public Schools should invest in the purchase of 1:1 computing devices that include high-quality digital inking capability. Digital inking devices are needed to provide the best range of access for both teachers and students. The ST<sup>3</sup> recommends that Bellingham Public Schools adopt Microsoft One Note as a common platform for such devices to improve instruction.**

\*\*\*\*\*

Finally, the committee supports the idea that Bellingham Public Schools should ensure that all 16 outcomes represented in *The Bellingham Promise* are fully supported by and included in any 1:1

efforts. This includes efforts to integrate technology, for example, into the visual and performing arts, as well as readiness for the widest range of educational and vocational outcomes to support a diversity of student life choices.

**RECOMMENDATION 8: Bellingham Public Schools should take steps to ensure that all 16 outcomes represented in *The Bellingham Promise* are fully supported by the new 1:1 technology initiative.**

\*\*\*\*\*

**Financial Impact**

The overall financial proposal for this recommendation is summarized in the Average Annual Financial Cost of Technology Support table below. The committee recommends retaining the current programs and necessary enhancements, as reflected in the ‘**Maintain**’ and ‘**Enhance**’ columns. The financial impact of the committee’s recommendations to implement a 1:1 computer program is an average increase of \$4,580,000 per year for the four years of levy, as reflected in the ‘**Expand**’ column.

**Average Annual Financial Cost for Technology Levy Support, 2017-2020**

<b>Maintain</b>	<b>Enhance</b>	<b>Expand</b>	<b>Total</b>
\$5,143,000	\$977,000	\$4,580,000	\$10,700,000
<ul style="list-style-type: none"> <li>• Ed Tech Staff</li> <li>• Partial LMS funding</li> <li>• Tech TOSA</li> <li>• Software licensing</li> <li>• Some computer refresh</li> </ul>	<ul style="list-style-type: none"> <li>• Datacenter work</li> <li>• CTE/STEM program</li> <li>• Adaptive Tech</li> <li>• Innovation &amp; Flexibility</li> <li>• Additional LMS funding</li> </ul>	<ul style="list-style-type: none"> <li>• Staff for support and training</li> <li>• 1:1 student devices for 3-12 students</li> <li>• PD time</li> <li>• Curriculum management</li> </ul>	<ul style="list-style-type: none"> <li>• Average expenditures over the life of the levy</li> </ul>

In the first year of implementation of this levy, 2017, this proposal will result in an increase in the cost of school levies of \$7 a month for an average property owner (\$300,000 house in Bellingham). This \$7 increase represents the total change in all school district levies paid by Bellingham taxpayers (operations levy, cost of bonds and technology levy). Based on our best estimate of assessed values, the total combined levy rate will increase from \$4.52 in 2016 to \$4.80 in 2017. For context, the 2015 actual levy rates for all Whatcom County Districts are provided below. Notably, if Bellingham’s rate had been \$4.80 last year, this would still be in the mid-range of rates in other local districts.

### 2015 Whatcom County Combined Levy Rates

School District	Combined Levy Rate
Sedro Woolley School District #101	5.08
Meridian School District #505	5.06
Nooksack Valley School District #506	4.96
Ferndale School District #502	4.61
Mount Baker School District #507	4.57
<b>Bellingham School District #501</b>	<b>4.48</b>
*Blaine School District #503	2.93
*Lynden School District #504	2.90
*Concrete School District #11	2.87

*\* These districts do not currently collect a Capital Projects Levy*

**SOURCE:** Willnauer, Keith. "Statement of Assessed Valuations, Tax Rates, and Taxes Levied Within the Various Taxing Districts of Whatcom County for the Years 2013 (2014) Taxes 2014 (2015) Taxes." Whatcom County. Assessor. Web. 20 Oct. 2015.  
<http://www.whatcomcounty.us/ArchiveCenter/ViewFile/Item/7813> (p9)

#### **V. Next steps**

Our process for reaching the recommendations above has been swift, but packed with learning. We are confident that as our community begins to learn about the power of the new 1:1 technologies we have witnessed, there will be strong support to secure the financial commitment needed to ensure that Bellingham Public Schools implement our program in a thoughtful and thorough manner. We further anticipate the need for some ongoing oversight of this work as it moves forward, and there is strong interest among ST<sup>3</sup> members for the opportunity to stay connected, either through the continuation of the original group, or by configuring a new group that would help to shepherd the implementation of a 1:1 technology implementation in Bellingham, should it come to pass.

We look forward to the decision by Dr. Baker and his final recommendation to the Bellingham School Board. We are available to address any further questions that arise.

## Appendix A: Guiding Principles, Survey Comments

**Question 1:** The Student Technology Think Tank agrees with and endorses a program which would provide a dedicated instructional computing device to students in the Bellingham Public Schools, commonly referred to as a one-to-one program, and further recommends that funding for such a program should be included in the next Technology Levy for Bellingham Public Schools.

### Notes/responses:

- *The world has moved into the 21st century, schools and students need to be there too*
- *Yes, (up to one-to-one program); Yes, but carefully consider amount (and further recommends...)*
- *There needs to be a clear focus on instruction and how the emphasis on instruction will be enhanced - whether it be PBL, increased collaboration or something else.*
- *If done responsibly, this project could improve instruction and prepare our students as digital citizens.*
- *21st century teaching & learning.*
- *Will help close the digital divide in our community. Helps us go further/deeper in fulfilling the Bellingham Promise.*
- *It's time - Do it right! (as talked about in meeting)*
- *Standards exist which call on schools to integrate tech. The digital divide is real-we can close the gap by providing tech for students; Bellingham has begun a major pedagogical shift toward student centered instruction. This amplifies that shift.*
- *Tech amplifies teaching and learning; empower our staff, empower our students.*
- *It's time. There are successful models to draw on. B'ham is a supportive community re: ed. BSD has been successful in changing teacher practice w/PLC model, etc.*
- *My teaching philosophy very much fits the model. Plus, my daughter (or my student) deserves to be properly prepared for this future.*
- *IFF- Digital Ink*
  - *FTE support of some kind in every school.*
  - *Integrated PD (tech built in)*
  - *Very clear messaging.*
- *I think that it will make learning a lot more engaging. Students would have more opportunities and ways to learn.*
- *It kind of depends on what type of tech they use (Digital ink seems to be a must.)*
- *21st century learning is best accomplished when technology tools are \_\_\_\_\_ and strengthen/enrich the learning experience.*
- *I saw powerful teaching/learning and student engagement at Sammamish. All students should have access.*
- *Tech has and is advancing at such inconceivable levels that if we don't make a commitment to our teachers and our students to advance with the tech we risk being left behind. This impacts futures for student, teachers and schools.*
- *Will improve the students, teachers and families educational experience. Help students conceptualize important teaching point that would otherwise be difficult to understand. Computers are a need of replacement.*
- *The potential for student learning gains, teacher efficiency and student organization is too big to ignore.*
- *I believe it is our best tool to improve instruction by increasing student ownership of learning and building classroom, school and beyond community.*

## Appendix A: Guiding Principles, Survey Comments

**Question 2:** A pilot school should be identified at each level (elementary, middle, and high). This pilot school should migrate one year in advance of others at the same level, and will help lead migration and learning efforts .

### Notes/responses:

- *This will provide real data on benefits/limitations of devices and grade/school levels.*
- *Just HS. Migrating students issue. Scale HS/MS might be too big.*
- *Focus on level first, then migrate down to middle school grades. Start at high school.*
- *If middle and elementary are to be included.*
- *Maybe start w/just one school at one level.*
- *Having a pilot school at each level allows for developing systems/models that can be adopted by others, but on a smaller scale.*
- *Get the 'bugs' out identify issues.*
- *I'd exclude elementary from this. I think it makes the whole endeavor too big. Seems like middle schools is the place to do the pilot-strong teams, emphasis on instruction.*
- *No better way to learn than by doing.*
- *Help work out bugs and create excitement and buy in/develop purpose, understanding in colleagues.*
- *Would recommend a small school (Options, etc.) and attention to leaders.*
- *All 3 levels? Build confidence in district through jealousy. Focus district resources.*
- *I think that a pilot school would only really be needed at HS and MS.*
- *This makes a lot of sense. Every level is going to face its own challenges so there should be a pilot of each one.*
- *Proof of concept is smart way to go. There is much to be learned and 1 year may not be a sufficient pilot period.*
- *Maybe...difficulty in not having straight lines to feeder schools.*
- *It would be unfair to other high schools if one high school got devices. Create conflict*
- *Guide figure PD needs for the full implementation.*
- *Selected intentionally and supported well, each building would inspire as well as inform our PD.*

## Appendix A: Guiding Principles, Survey Comments

**Question 3:** When planning for a 1:1+ program at a Bellingham school, the think tank would advise a whole-school implementation versus implementing by grade level.

### Notes/responses:

- *Caveat: 8th grade algebra needs one to one devices for their curriculum implementation and fidelity.*
- *Needs to be a whole school, training, sharing, culture, pedagogy*
- *There was valuable info pointing to a whole school implementation. Grant based or teacher interest would be problematic-creating different learning environments for our students.*
- *To maintain equity and increase success.*
- *Yes, aka Sammamish*
- *Whole school puts all teachers and students into the same learning community. If it is just one grade level it makes it challenging for mixed grade classes. Also, teachers spread out around district might be more challenging to integrate.*
- *Alleviate mixed grade level problems*
- *We've heard a lot about pitfalls of not doing this.*
- *Bring students and staff together by building. Too hard for staff and students in mixed grade classes and subjects.*
- *Evidence form other models suggest this is most successful.*
- *Probably but Sammamish had some straggler as well.*
- *Fostering cohesive community amongst students/staff. More critical for students at HS level, staff at MS level. Resource management!*
- *So all the teachers would be on the same page and could work together.*
- *In some schools there is split grade level classes. How would that effect students.*
- *I like this concept because a school is a cultural \_\_\_\_\_. It should evoke as one entity, not in fragments.*
- *Yes, definitely all or none for a school to get everyone (students/staff) on board.*
- *Split grade classed. A tech implementation culture. Cohesiveness*
- *Students for the most part would respect this rule, as being older has its privileges (assuming devices would be given to older students)*
- *At secondary students would be challenged switching between the two. Also, building PD would make more sense if it was building wide.*
- *No have and have nots (adult or child). A building focus can then have coherence.*

## Appendix A: Guiding Principles, Survey Comments

**Question 4:** When determining which school(s) within Bellingham should be migrated to a 1:1+ program first, the buy-in and endorsement of building leadership and staff is a prerequisite.

### Notes/responses:

- *A coalition of the willing raises achievement levels.*
- *?*
- *There should be awareness and fidelity of the vision as well as the possibilities for growth of student learning and school culture.*
- *If not, it won't work. Critical mass of staff.*
- *\_\_\_\_\_ need full commitment*
- *There will be lots of challenges and hurdles to being first. If most staff not bought in on building leadership not supportive it will be much more difficult.*
- *Allow transfers in/out if necessary requested.*
- *Absolutely. It's a jump. It takes time and hard work. First it should not be forced.*
- *High level of enthusiasm will be contagious.*
- *Leadership makes or breaks the safe environment that fuels innovation and school wide success.*
- *Not a deal breaker.*
- *Not necessarily 100%*
- *Because if teachers aren't willing to change how they teach or aren't excited about it, it won't work.*
- *It seems important to have leadership that is strong going into this program.*
- *I would say essential. Perhaps not everyone at the same level, but with a willing to give best effort attitude.*
- *Early buy in would seem to lead to success.*
- *Having staff excited about the opportunity rather than resisting to change is a key to success.*
- *If you aren't prepared, then you shouldn't be wasting the money on it.*
- *Folks on the edge need to be committed to the cause.*

## Appendix A: Guiding Principles, Survey Comments

**Question 5:** When determining which schools within Bellingham should be migrated first, addressing socio-economic equity should be a consideration.

### Notes/responses:

- *Not sure.*
- *Students who don't otherwise have access but how useful it is @home if no connectivity?*
- *Absolutely-whenever given the opportunity to leverage equity to close the gaps that exist-we should!*
- *Question about whether this is the driving factors. What's going to be most helpful for \_\_\_\_\_. Maybe shoot for six months earlier.*
- *Providing our community w/less resources more opportunity to be 'at par'*
- *Equity is a key factor (in my mind) in addressing 1:1.*
- *Linked to the Promise equity is a real issue we can promote with this initiative. SMS is also a building that has strong staff cohesion and culture of staff as learners.*
- *Closing achievement gaps is a huge 'why'. Start ASAP.*
- *"ex: BWD-strong leader-teachers-principal*
- *SMS - STEM focus, high trust*
- *SqHS-willing staff & leadership*
- *lowest SES plus"*
- *Equipment and training?*
- *More than one factor*
- *Different schools have different economic equity and that could be a factor.*
- *Yes-but this is a tough question to grapple with. What constitutes equity? Community needs to understand and support concept.*
- *Probably as long as it's set up for success in other ways.*
- *I don't have an opinion on this.*
- *This would make sense because if given to a school where lots of students don't have internet access, then it would be solving the problem of device inequality.*
- *We would eventually be implementing in all schools, so other factors that maybe more predictive of future needs should be considered.*
- *Yes, if all other issues are equal.*

## **Appendix A: Guiding Principles, Survey Comments**

**Question 6:** Staff should receive equipment relating to a 1:1+ program during the prior school year in order to develop familiarity and expertise with the interface

### **Notes/responses:**

- Yes, so it's not "the blind leading the blind".
- So no testing which interface? & training and a small number of students to road test.
- It's extremely important to conduct the preliminary work to build capacity and help ensure a smooth implementation.
- 3 -6 months prior.
- Digital yes!
- Being able to be familiar with device may help reluctant teachers.
- Teacher comfort with equipment allows for more instructing freedom.
- Staff have a lot to learn but give them the time to do so.
- And meaningful PD!
- Yes and paid trainings and fun opportunities. Ex: PBL boot camp using tool.
- Absolutely necessary do have digital ink and collaboration space to support device/teacher.
- Confident staff!
- If teachers don't know how to use it themselves, then they can't be as helpful to the students.
- Staff are the ones who are going to be teaching the programs so they need to have a strong understanding.
- Sooner is better but there has to be a program at PD in place. Perhaps summer boot camp. Houston has done it successfully in the past.
- Get comfortable before using w/students but make sure they use it!
- If possible I think this would allow teachers to familiarize themselves more gradually vs. being thrown into a 'use now' situation.
- This is a great idea. Would get staff prepared; preparation is key.
- With training.
- No brainer. More time in the fingers = better use.

## **Appendix A: Guiding Principles, Survey Comments**

**Question 7:** The committee strongly recommends that a computing platform which utilizes a flexible user interface supporting both traditional keyboarding and a pen-based interface and digital ink be chosen as the staff and student device platform.

### **Notes/responses:**

- *Yes, yes, yes collaborative*
- *Digital ink seemed really useful as an interface should we test?*
- *Sammamish demonstrated the value of digital ink -it's imperative!*
- *How much can we afford? Don't need a person next door.*
- *Without this I do not recommend going 1:1. Having both provides many more uses for tech equipment.*
- *Yes!*
- *linking/handwriting research*
- *Surface 3 pro was awesome. Lenovo yoga looked good too.*
- *This would go far to convince 'non-believers' that the district was supporting them not dictating to them.*
- *Deal breaker. Everyday use vs. specialty lesson.*
- *Being able to write can help to keep track of what's happening better than just typing.*
- *The digital ink seemed very important when facing note taking and also keyboarding is a needed skill.*
- *Absolutely should also be \_\_\_\_ with all day battery life. Ideally throw away device-no repair-keep cost as low as reasonable.*
- *Yes! Flexibility*
- *Digital ink has been proven to be successful in schools we have visited.*
- *!!!*
- *Sold on high quality digital ink. Not just the versatility but the physical/cognitive aspects.*

## Appendix A: Guiding Principles, Survey Comments

**Question 8:** An investment should be made to support not only the devices themselves, but also a robust technical support and professional development infrastructure to provide strong support to a 1:1+ initiative. The think tank would recommend:

- Certificated Instructional Tech Coach at each 1:1+ school to lead building-based professional development.
- A dedicated Support Tech for each secondary building teamed closely with the Instructional Tech Coach to address technical support issues.
- Establishing a student help desk at each secondary school to augment tech support for staff and provide peer-support for students.

### Notes/responses:

- *technical support'- e.g. wireless projectors, pedagogy, tools. 'strong support' -curriculum on time? Other applications? (website blockers, trackers) So, each school would have 1 tech and 1 coach and 1 LMS = 3 FTE from tech fund? X 8 secondary = 24 FTE*
- *Establish a model for elementary, i.e., 1/2 time, etc.*
- *Without a doubt-non-negotiable! And build technical support skills*
- *Need PD support for one note*
- *Critical for staff to begin a shift/transition in teaching pedagogy. Provides the 'how' and 'why' for staff/building. Critical for tech hiccups/issues and permissions/networking. More equipment will mean more things that may need 'fixing'. Love this for peer support (leadership) and staff support elevating student status and increasing student voice.*
- *Very expensive. I'm not sure a tech support would have to be in building if you have loaners. (No for A dedicated Support Tech for each secondary bldg...)*
- *What are the supports to a successful rollout.*
- *Maybe more than one coach at each building pilot to help prep for 'all in' next year.*
- *Evidence from successful models require this level of support for their success. Would loaner machines alleviate some of this need?*
- *"Minimum 1.0 FTE (0.5 x 2 FTE? Share one prep and both are in the classroom as well.) for starters. Minimum 1.0 FTE for starters?"*
- *Right away? Or, year two? Either way, YES!"*
- *You can't use devices to their full potential if they are broken or students/staff don't know how to use them. Having someone there can make sure that devices are always being used as well as possible.*
- *If computers crash they need to be fixed. That is obvious if we are going to be having everything online. There has to be a strong support system for the computers and people using the computers.*
- *All buildings where 1:1 is implemented carefully-for credit and with teacher supervision.*
- *Looks good. Look at possibility of cross-pollination of coaches.*
- *This is in my mind a huge piece of the 'how' for insuring success of the implementation of the 1:1.*
- *the help desk of students I thought was a great idea because it gives the students not only a chance to learn a real world job but also gives them/puts them in a position of responsibility and leadership.*
- *Great teaching with strong support'. We are not just imparting technical knowledge, but should be shifting pedagogy. We can connect all our work!*

## **Appendix A: Guiding Principles, Survey Comments**

**Question 9:** A common classroom interactivity and collaboration platform, such as Microsoft OneNote, should be adopted on a District level to ensure a common, high quality experience by all students and staff participating in the program.

### **Notes/responses:**

- *Supports cohesive and effective use.*
- *Easier to train staff and easier for learning if are platform adopted.*
- *Absolutely!*
- *Certainly building level. Perhaps district level.*
- *Yes on VPA*
- *One benefit of tech is teaching students digital "organization" one platform will simplify and create uniform, the student experience.*
- *Makes it seamless from class to class.*
- *I'm mixed on this. Everyone learns a little differently. There is no one size fits all. I place less importance on this. What if something better comes along? Teachers and students should have some freedom.*
- *Efficiency - both time and \$ is key. Also will allow for consistent PD.*
- *Powerful tool for sharing; plus organized; plus efficient for staff/students.*
- *If not integrated and supported in all areas there will be erosion.*
- *Deal breaker. Common experience. Ease of use. Collaboration potential - student/student; student/teacher; teacher/teachers.*
- *All students should be getting the same learning tools.*
- *There has to be a common place districtwide to work at school.*
- *Should support and use at school and at home.*
- *More support and understanding if issuing the same system.*
- *A uniform method of interaction and collaboration is necessary to insurance a unified/shared experience.*
- *It seemed to work well within the system at Sammamish HS.*
- *Consistency and accountability*
- *Ok, probably a good idea. Yes.*

## **Appendix A: Guiding Principles, Survey Comments**

**Question 10:** The District should ensure that all 16 outcomes represented in the Bellingham Promise are fully supported by and included in any 1:1+ efforts. This includes efforts to integrate technology, for example, into the visual and performing arts, as well as other key Promise outcome areas.

### **Notes/responses:**

- *Sure.*
- *As well as crosswalks into the instructional framework to enhance \_\_\_\_\_ and help teacher's envision the work.*
- *Good Goal, but not required.*
- *Not sure about ES. Prioritize HS. Increase density at Elementary.*
- *I think this is one reason 'why' to the community. We are asking for tech \$ to better do this.*
- *Because Bellingham Promise*
- *If it comes naturally shouldn't be forced.*
- *We love the Promise!*
- *Math, science, art, music. Should all have powerful examples to drive learning using tech too.*
- *The more tech is used outside of just school work the more excited students will be to use it.*
- *Every focus is important and there are ways to integrate technology into all of the 16 outcomes.*
- *Digital ink helps the tool be more adaptable to all areas. So much we can do!*
- *Yes if it makes sense to the outcomes. No if it does not improve the teacher/learner experience. Not tech for tech sake.*
- *Most arts programs have been affected by budget cuts and don't necessarily have new equipment so they would appreciate this.*
- *So much potential!*
- *Our vision is everything!*

**Appendix A: Guiding Principles, Survey Comments**

**Question 11:** The think tank recommends that a 1:1+ program be implemented at the following levels:

- High School (take home)
- Middle School (take home)
- Elementary (In class grades 3-5)

**Notes/responses:**

*Regrouped:*

- 
- *Prioritize HS*
  - *I do think that at first it would be more important for MS and HS to get it.*
  - *Yes, but graduated-smart HS, then MS, then elementary.*
- 
- *Depends on \$ for middle school; am not convinced elementary*
  - *Doesn't seem very necessary for elementary school at all.*
  - *Response: Y, except elem; Comment: Maybe no-is take home best here?*
- 
- *Buy may provide additional devices K-2 (not 1:1 but important to get some cons)*
  - *1:1 implemented at lower levels will pay forward benefits in the future MS/HS.*
  - *Will anything be for K-2? Maybe just the same access they have now. Providing more for 3-5 frees up.*
- 
- *Yes, (up to one-to-one program); Yes, but carefully consider amount (and further recommends...)*
  - *Critically important.*
  - *This seems like a strong system of building computer knowledge over time.*
  - *Parents pay into damage insurance.*
  - *Love the push to make this a family device.*
  - *Seems appropriate for the ages. Money \$ dependent.*
-

## **Appendix A: Guiding Principles, Survey Comments**

**Question 12:** Strong consideration should be given to student and family online safety, including the adoption of a clear/concise digital citizenship and online safety curriculum.

### **Notes/responses:**

- *Yes, big deal.*
- *Of course. Filtering some level of security will need to exist. There are models out there.*
- *Or where these key ideas are addressed across grade level/content areas.*
- *Mandatory that it is included in all student experiences.*
- *The program will not work if students don't understand how to act online as they use it more.*
- *It is important to have digital citizen classes because technology is there every day.*
- *Same rules should apply anywhere the district owned device is used.*
- *Sure.*
- *This is huge. One of the most important things to talk about before giving away laptops.*
- *Safety first.*
- *Ok. I'm not as concerned (or excited) but I do see the want.*

## **Appendix A: Guiding Principles, Survey Comments**

### **Additional 'How' Statements:**

- *Emphasis on building leadership adoption of digital tools (staff notebook); Consideration given for creating space in teacher schedules for prof. learning to take place. Strategies for community internet access should be included in the model.*
- *Integration of technology use...Brian mentioned an effort but ISTE provides standards for students, teachers, and admin-called NETS.*
- *Accountability-In a caring and supportive way, we must not allow independent contractors to forge into areas on their own.*
- *Prioritize high schools over middle and elementary [schools]. Ensure sufficient materials such as e-textbooks are planned.*
- *Teachers should be given 10 hours of paid PD in the collaboration interactivity.*
- *Staff should be provided with several paid opportunities to learn how this can transform their teacher and student learning.*
- *Address home connectivity especially in relation to SES gap widening.*
- *The district will address home connectivity in an effort to lessen the digital divide. The shining star of the Kent model.*
- *Idea only: After several years, shift from by school replacement cycles to by grade level. New device in 3rd, 8th grade? Select pilot 1:1 based on which will give most info for district wide implementation.*
- *Just that all teachers have to be on the same page.*
- *How will the school district decide which schools are the pilots? Socio-economic stuff. . .*
- *Need a robust \_\_\_\_\_ policy-replace broken devices on the spot. Allow flexibility in device choice-one size may not fit all. Rotation of devices as students move on the new school or graduate.*
- *Implementation and piloting seem to be in question. Staff readiness is migrating to feeder schools vs. closing equity gap. PBL or some other plan. Tech just a tool for good instruction.*
- *Wonder: How can we increase home access to on-line resources? Wonder: What types of intentional support will building leadership receive?*

**Appendix B: Survey Response Summary**

*Student Tech Think Tank Summary Statements Responses [10/5/2015]*

#	Question	21	Y	M	N	Values as % of respondents			
		Yes	Maybe	No	Blank	Yes	Maybe	No	Blank
1	The Student Technology Think Tank agrees with and endorses a program which would provide a dedicated instructional computing device to students in the Bellingham Public Schools, commonly referred to as a one-to-one program, and further recommends that funding for such a program should be included in the next Technology Levy for Bellingham Public Schools.	21	0	0	0	100%	0%	0%	0%
2	A pilot school should be identified at each level (elementary, middle, and high). This pilot school should migrate one year in advance of others at the same level, and will help lead migration and learning efforts .	17	1	3	0	81%	5%	14%	0%
3	When planning for a 1:1+ program at a Bellingham school, the think tank would advise a whole-school implementation versus implementing by grade level.	20	0	1	0	95%	0%	5%	0%
4	When determining which school(s) within Bellingham should be migrated to a 1:1+ program first, the buy-in and endorsement of building leadership and staff is a prerequisite.	20	0	0	1	95%	0%	0%	5%
5	When determining which schools within Bellingham should be migrated first, addressing socio-economic equity should be a consideration.	15	3	2	1	71%	14%	10%	5%
6	Staff should receive equipment relating to a 1:1+ program during the prior school year in order to develop familiarity and expertise with the interface	21	0	0	0	100%	0%	0%	0%
7	The committee strongly recommends that a computing platform which utilizes a flexible user interface supporting both traditional keyboarding and a pen-based interface and digital ink be chosen as the staff and student device platform.	20	1	0	0	95%	5%	0%	0%

**Appendix B: Survey Response Summary**

*Student Tech Think Tank Summary Statements Responses [10/5/2015]*

#	Question	21	Y	M	N	Values as % of respondents			
		Yes	Maybe	No	Blank	Yes	Maybe	No	Blank
8	An investment should be made to support not only the devices themselves, but also a robust technical support and professional development infrastructure to provide strong support to a 1:1+ initiative. The think tank would recommend: * Certificated Instructional Tech Coach at each 1:1+ school to lead building-based professional development. * A dedicated Support Tech for each secondary building teamed closely with the Instructional Tech Coach to address technical support issues. * Establishing a student help desk at each secondary school to augment tech support for staff and provide peer-support for students.	20	1	0	0	95%	5%	0%	0%
9	A common classroom interactivity and collaboration platform, such as Microsoft OneNote, should be adopted on a District level to ensure a common, high quality experience by all students and staff participating in the program.	19	1	1	0	90%	5%	5%	0%
10	The District should ensure that all 16 outcomes represented in the Bellingham Promise are fully supported by and included in any 1:1+ efforts. This includes efforts to integrate technology, for example, into the visual and performing arts, as well as other key Promise outcome areas.	19	2	0	0	90%	10%	0%	0%
11	The think tank recommends that a 1:1+ program be implemented at the following levels: High School (take home) Middle School (take home) * Elementary (In class grades 3-5)	21	0	0	0	100%	0%	0%	0%

\* For Q11, 6 respondents prioritized MS/HS (in general or to this question), 3 respondents noted hesitation about ELEM 1:1

*Student Tech Think Tank Summary Statements Responses [10/5/2015]*

**Appendix B: Survey Response Summary**

#	Question	21	Y	M	N	Values as % of respondents			
		Yes	Maybe	No	Blank	Yes	Maybe	No	Blank
12	Strong consideration should be given to student and family online safety, including the adoption of a clear/concise digital citizenship and online safety curriculum .	19	1	0	1	90%	5%	0%	5%

*Note: Y/M/N responses normalized for ease of analysis*