



## *“Why don’t they .... ?”*

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The KiMS PTSA Backpack Committee is doing fantastic work at raising awareness in our community of how to safely wear a backpack, how much it should weigh and ideas for reducing the weight. This awareness process has brought some great ideas and questions to light and we want to encourage parents, teachers and students to keep asking about the possibilities. The purpose of this document is to present some answers to the more common questions. All of these ideas are outstanding and the answers do not mean that the concept is not possible, but it is good to know all of the the difficulties of implementation of each of these.

### *“Why don’t they allow students to bring their own laptop?”*

Allowing students to bring their own technology, whether it be a Chromebook, tablet or laptop, continues to be an important topic of discussion. Lake Washington School District has been working through the permutations of how to make this a possibility. Even though this is a simple concept, it is more complicated than it seems on the Microsoft surface. (Sorry.)

The primary problem is how to be confident that the educational tools being employed by teachers will work on the variety of hardware that students will bring to the school. Even if the school district focused just on making the web-based tools available on personal hardware, it is an administrative challenge to verify that Microsoft Sway will work the same way on an iPad, Samsung Galaxy, Lenovo Thinkpad, MacBook and a Dell Chromebook. How can they assure that the school educator assigned with tech support can troubleshoot the variety of platforms? Does the district certify only certain types of machines?

Network security is another concern since Windows laptops, in particular, are often infected with malware and other nefarious programs that can clog network bandwidth and potentially spread to school district equipment. The district network and computers have been damaged by Windows malware in the past and they must minimize the risk. A less important but still notable item is the possibility of a brilliant student using a personal Windows, Linux or OS X machine to learn the ropes of hacking a school network.

Finally, there is the issue of student parity. Parents asking for this option can afford to buy this technology. The district, rightfully, does everything possible to put every student on a level playing field which impacts decisions that run from test materials to physical education clothes. Students with a friend using a new MacBook will ask their family “why not me?” which creates a negative atmosphere.

There are ways to potentially minimize the issues here but some cannot be solved easily. The district must take the time to research potential compromises for each of these issues.

## *“Why don’t they install lockers?”*

Most (but not all) new schools built today are locker-free. It can seem strange walking through these schools when nearly all of us have memories of posting photos inside our high school locker door. This transition has occurred because lockers are expensive to install, take up space, slow down the flow of traffic, make researching issues problematic and are difficult to maintain.

When Kirkland Middle School and Lake Washington High School were remodeled, the hallways were designed to be locker free. If we were to install lockers, even small ones, a remodel of these schools would be necessary to permit the students to flow freely and still be able to access their lockers. That is an expensive proposition and not currently on the radar of the district.

Lockers continue to be a major expense for a school after they are installed. They need to be cleaned, books and technology are often damaged in locker mishaps, and locker combinations must be changed regularly.

Since lockers create a hub where students store their materials, they become a necessary stop throughout the day. Instead of students traveling directly from class to class, the school would need to add time between each period for students to be able to travel to their locker, unlock it, swap out materials and then get to class.

Today, when there is a student concern, the administrative staff can get the student and all of their belongings travel with them in their backpack. That situation becomes far more complex if there are lockers involved.

Finally, it should be noted that Kirkland Middle School has lockers in the changing areas of the gym for students to use. Security issues do come up with even this small set of storage areas. So, the school district and school employees know from experience what issues come from having lockers and they are, on the whole, considered somewhat detrimental to a positive learning environment.

## *“Why don’t they have lunch cubbies?”*

The cubby concept is giving students a small space to place their lunch so they do not carry it all day. To consider this option we will use the student population of Kirkland Middle School as an example. We will assume a space just big enough to accommodate a lunch box and a water bottle. If we stacked these spaces 8 high (over 5’ in height) with zero gaps in between the columns it would take well over a 100 feet of space to accommodate all of these cubbies. Realistically, it would need more space. The larger population of a high school makes the space needed significantly larger.

Much like installing full lockers, both KiMS and LWHS do not have any designated rooms or hallways that can accommodate even small cubbies. Students would be blocking the flow of traffic moving around the school as they are accessing these spaces.

Security is possibly the largest issue in any concept that allows every student access to every other student’s stored valuables. These are teenage students and 99% of them will make the right choices, but it only takes one student to cause a major mishap. Liability, regardless of what is communicated and signed by parents, would weigh on district insurance policies and administrative management.

There would also be a major impact to student traffic flow at lunch since half of the students break for lunch simultaneously. Just getting all of the lunch crowd through the four large entry doors into the Commons at Kirkland Middle School is a challenge. Adding a stop at cubbies ahead of eating might not be realistic without a remodel and traffic flow organization.

## *“Why don’t they have netbook lockers or cubbies?”*

Many of us have seen netbook cages in elementary schools where the devices were stacked four across and ten high with network and power plugs for each netbook. It should be noted that the netbook cage idea has not been trouble-free at the elementary, from cage problems, simultaneous system updates and the occasional hour long search of each netbook to find the file that accidentally got saved to the device instead of the cloud. Regardless, almost all of the reasons why the district does not do this in secondary education is due to the significantly larger number of devices needed.

While it is possible to have district employees manage 100 devices being shared among a pool of 500 elementary school students, it is a far larger challenge to manage 600+ devices checked in and out for use all day by teenagers. This would require a considerable number of district employees monitoring the entire process, doing inventory of which student has which device and verifying they return in the same condition. Managing students that leave early for the day or come in late might also require this to be staffed full time. Physical security of the devices also comes into question.

The other issue is network and power management of 600+ devices being plugged in simultaneously. No question that this is an infrastructure problem that could be solved, but it would not be cheap to do so. A major Windows update might require significant technical management to make certain patches are installed in waves instead of simultaneously.

Finally, while storing a netbook requires even less physical space than a lunchbox, the administrative work being necessitated to manage the check-in/check-out process would likely require these be kept in one location. Today, there is not a viable location at KiMS or LWHS.

## *“Why don’t they use lighter and better devices?”*

The decision to focus on Windows netbooks was made years ago. In the period of time between that decision and today the computing landscape has changed dramatically. In 2010 the most used operating system in the world was Windows. Today it is Android. In 2010, the choice for student technology was between Windows and Mac. Today school districts are moving to Chrome OS devices. In 2010 the question was whether the PC or the tablet would win. Today the tablet and PC markets are both shrinking. This is what happens in the technology world in five years: It changes.

When Superintendent Dr. Chip Kimball switched LWSD from Mac to PC, a huge investment was made in Windows software and hardware for a long term commitment to that platform. When you have thousands of devices in place for students, shifting directions is like turning a cruise ship.

One option raised by parents is to consider replacing all devices with Microsoft Surface or similar light devices. Ignoring the security concerns of Windows and focusing on the finances: Just buying Surface hardware for the secondary level, not considering administrative costs, would run over 10 million dollars. That is well beyond what the district is spending today on netbooks.

The district has taken their lumps as they learned that student Windows devices can infect district networks with malware and create confidentiality issues. In a world of tablets, parents have a difficult time understanding why they are using devices that weigh 4lbs and run so slowly. LWSD may need to someday follow the lead of other districts and get Chromebook devices that are disposable priced, instant on, weigh half as much, have twice the battery life and will never get a virus - but the hardware is only one issue. LWSD would still need to find equivalent replacements for all of the education software that they are using.

Given the LWSD mission to use the best education tools possible and the parental concerns, they will surely be considering safer options than Windows netbooks. However, it will take time to turn this netbook cruise ship.