

Schools, Cameras and Computers

When Apple brought out the first Macbook, a commenter on a computer blog I read said that its built-in camera would be a deal killer for school purchases. In the course of the ensuing discussion, several explanations for schools not wanting laptops with built-in cameras were offered. One poster wrote that:

"The problem comes from the camera being with every student, all the time. It would become a dominant form of communication and K-12 students, as a group, do not have the mental filters in place to prevent trouble. MySpace proved this. Taking them out lets the kids know that you are concerned about their safety and kids do understand that."

What is unsafe about taking pictures was not explained — we do not generally restrict cameras to adults. To my ear, the comment had a distinctly Orwellian tone. Big Brother cares about your safety.

Another poster wrote:

"By providing access to unsupervised video recording technology, a school can possibly open itself up serious legal problems if a child does something beyond the pale, even with the strictest of Acceptable Use Policies in effect."

It was not clear whether the “something” was something done with the camera or recorded by it. If the latter, surely there is something seriously wrong if the best solution to children doing something “beyond the pale” is making sure that no evidence of what they have done survives to reach a court. Of course, it might be either something wrong with the schools or something wrong with the courts.

I put up a blog post on the topic, and got multiple responses:

I presume they are concerned about liability arising out of use by the students of their computers to make sexually oriented videos.

To which someone responded:

I presume they are concerned about liability arising out of students making videos of the stultifying boredom.

From a long response by a teacher:

Without some supervision to make sure use of the camera is appropriate, young people, many of whom have yet to fully mature and realize social propriety (not to say all adults have) will find all sorts of ways to abuse it.

Another reported that schools worried about pictures being used by pedophiles cruising school sites for victims.

None of those concerns struck me as very convincing, and the predicted problem for Apple did not eventuate. Laptops with cameras in them are now common in schools as elsewhere. They have raised a number of problems, but student misuse has not been the issue.

[Robbins v. Lower Merion School District](#)

In November of 2009, Blake Robbins, a Pennsylvania high school student, was accused by a school official of improper behavior in his home,¹ a claim supported by a photograph taken of him in his home by his laptop. His father, on inquiry, was told by an assistant vice-principal that the district could remotely activate the cameras in student laptops issued by the school at any time it chose and view and capture images of whatever was in front of the webcam.

Shortly before the laptops were handed out, a high school student interning with the school IT department who had researched the software on them had emailed the director of technology:

I would not find this a problem if students were informed that this was possible, for privacy's sake. However, what was appalling was that not only did the District not inform parents and students of this fact ... [W]hile you may feel that you can say that this access will not be abused, I feel that this is not enough to ensure the integrity of students, and that even if it was no one would have any way of knowing (especially end-users). I feel it would be best that students and parents are informed of this before they receive their computers. ... I could see not informing parents and students of this fact causing a huge uproar.

The director of technology responded:

[T]here is absolutely no way that the District Tech people are going to monitor students at home. ... If we were going to monitor student use at home, we would have stated so. Think about it — why would we do that? There is no purpose. We are not a police state. ... There is no way that I would approve or advocate for the monitoring of students at home. I suggest you take a breath and relax.

He forwarded the emails to District Network Technician Perbix, who emailed the intern:

[T]his feature is only used to track equipment ... reported as stolen or missing. The only information that this feature captures is IP and DNS info from the network it is connected to, and occasional screen/camera shots of the computer being operated. ... The tracking feature does NOT do things like record web browsing, chatting, email, or any other type of "spyware" features that you might be thinking of. Being a student intern with us means that you are privy to some things that others rarely get to see, and some things that might even work against us. I assure you that we in no way, shape, or form employ any Big Brother tactics, ESPECIALLY with computers off the network.

They were both lying, as were other school employees who responded to student queries by denying that the laptop cameras were used for anything more than retrieving missing computers. The school eventually admitted to having captured more than 66,000 images from student laptops, many from ones that had not been reported missing, including pictures of students in their bedrooms. In addition to recording what the camera saw, the software could take screenshots, which meant it could record web browsing, chatting, email or anything else on the screen.

¹ The behavior was drug use. According to Blake, what the camera had photographed him with were candies.

The laptops were MacBooks. The teacher commenting on my blog had made only one mistake — it was not the students who would find ways to abuse the cameras.

Blake and another student sued the school, which eventually settled for a payment of \$610,000. A federal judge issued a preliminary injunction, later made permanent, ordering the school district to stop webcam monitoring and preserve all electronic evidence. Federal law enforcement agents who became involved concluded that there was no criminal violation since there was no criminal intent.

It is not clear to me why they reached that conclusion, given that the school officials had been warned of the problem in advance by the intern, had deliberately lied to her and other students about what they were doing, and continued to do it on a large scale for an extended period of time.

What I find most puzzling about the whole story is the behavior of the school officials: How did they think they could get away with what they were doing? The arrogance that made them think they ought to do it is not surprising; authority over children is quite likely to make people arrogant. It is usually taken for granted that schools can and should make decisions for students for their own good, as illustrated in some of the comments I quoted earlier. But that does not explain why they thought they could get away with secretly spying on people, adult parents as well as students.

I can see two plausible explanations. One is that they did not intend to ever be caught, thought the cover story of “only there to help recover missing laptops” would hold. Their plan may have been to use information from laptops to identify students who were using drugs or misbehaving in other ways and then obtain evidence by other means, perhaps searches of the student’s locker or backpack, and use that evidence without ever admitting the computer spying.

That would be the school equivalent of the parallel construction approach used by law enforcement:²

Through a practice known as “parallel construction,” an official who wishes to keep an investigative activity hidden from courts and defendants — and ultimately from the public — can simply go through the motions of re-discovering evidence in some other way. For example, if the government learned of a suspected immigration-related offense by a person in Dallas, Texas, through a surveillance program it wished to keep secret, it could ask a Dallas police officer to follow the person’s car until she committed a traffic violation, then pull her over and start questioning her—and later pretend this traffic stop was how the investigation in her case started. (from a [report](#) released in January of 2018 by Human Rights Watch)

If that was the plan, it made no sense to use a picture taken of a student in his own home to accuse him of drug use. But that may have been a mistake:

In early November, a number of Harriton High School administrators, including Kline, Matsko, and Assistant Principal Lauren Marcuson, met to discuss the images.^[44] According to Matsko, Kline advised her that unless there was additional evidence giving them a contextual basis for doing so, they should not discuss the images with Robbins or

² The Special Operations Division of the Drug Enforcement Agency obtained information produced by means some of which, such as NSA wiretaps, were not legal for domestic criminal investigation. They then funneled that information to law enforcement, which used it to obtain further information on which to base a prosecution without ever revealing to the court or the defense attorney the initial source of the information.

his parents, because they involved off-school-campus activities. However, Matsko ultimately decided to discuss certain images with Robbins or his parents. ([Wikipedia](#))

One could interpret that as one clueless assistant vice-principal (Matsko) letting the cat out of the bag. While it sounds as though the school principal (Kline) was willing to have the images shown to Robbins and his parents if there was additional evidence to support them, it is possible that what he really intended to do was to watch the student, wait for additional evidence and then use that without revealing the pictures.

The alternative explanation is that the school officials really did believe that what they were doing was legitimate, that it was desirable to keep it secret as long as possible so that students who were misbehaving would not take precautions to keep their computers from watching them but that, when and if school officials needed to use the images, they could justify taking them.

It may be relevant that some other schools elsewhere have continued claiming the right to do the same thing, minus the secrecy. According to a detailed [account](#) from the ACLU, as of 2017, seven years after the Pennsylvania case, many of the school districts in Rhode Island considered that they were free to access the computers they provided students, inside or outside school, at any time and for any reason, in some cases including access to cameras and microphones. They required parents to acknowledge that there was no expectation of privacy in use of the computers, even use by the parents or for non-school purposes. Whether they made a point of it or merely included it in a “just sign here” document I do not know. Nor do I know what use they made of the computers, whether they actually took pictures or recorded conversations in student homes or only claimed that they could if they wanted to.

According to a later ACLU [report](#), in 2020, when the Covid Pandemic had pushed all Rhode Island public schools to virtual classes requiring all students to use computers, out of 36 school districts in the state:

24 districts allow school officials to access the microphone or camera on a school-loaned device at any time.

23 districts give officials the authority to access the contents of a school-loaned device for any reason and with no notice.

23 districts explicitly advise students and parents that they have no expectation of privacy whatsoever when in possession of the device.

I have not found any references to school districts outside of Rhode Island claiming such broad authority, although that does imply that none are doing so. But it appears to be standard practice at present for schools to hold that students have no expectation of privacy with regard to either the contents of school issued computers or anything the student does over a school network. In response to a variety of worries, mostly about school shootings and student suicides, a number of firms have provided schools with software that scans emails, chats, web searches, shared documents, looking for words or phrases that might signal suicidal thoughts, cyberbullying, a planned school shooting, ... and reporting them to the school or, in some cases, to law enforcement. One of the products also sends a scolding email to any students who uses a profanity.

From one [article](#) on the practice

A few school districts have chosen not to send students Gaggle’s warnings about swear words, some because they’re concerned that if students are reminded that they’re being monitored, “the children will then resort to other tools to communicate, and they’ll miss the life-threatening issues they could have intervened in,” McCullough, the Gaggle spokesperson, said.

McCullough said these fears were misplaced, and that the company had seen little evidence that the students being surveilled on school devices had switched to other forms of communication.

“Kids who have used us in their districts for years and years still use these tools to communicate their innermost thoughts, because they’re hoping that their cries for help are answered, and they’re not comfortable communicating the way adults communicate, face-to-face,” McCullough said.

A Missouri principal reported that:

students can be “a little bit upset sometimes. They feel like there’s a little bit of that privacy issue. But over the course of time they see we’re really trying to help, especially when we’re talking about the issue of self-harm.”

That leaves me wondering how either McCullough or the principal would feel about having his own online activities similarly monitored for similar purposes. Suicide rates are, after all, lower for school-age children than for any part of the adult age range — much lower for the 10-14 age range, somewhat lower at older ages.³

Not everyone agrees that such monitoring is an unambiguously good thing:

It’s not clear what kind of “chilling effect” the monitoring might have on students’ self-exploration, their group conversations and their academic freedom, Marlow, the ACLU privacy expert, said. If students know their schools are monitoring their computer usage, will LGBTQ students in conservative school districts feel comfortable researching their sexuality? What about young Trump supporters in liberal school districts who want to do some political research?

From another [article](#):

When Dapier talks with other teen librarians about the issue of school surveillance, “we’re very alarmed,” he said. “It sort of trains the next generation that [surveillance] is normal, that it’s not an issue. What is the next generation’s Mark Zuckerberg going to think is normal?”

And:

Felix said that he used to spend his free time at school researching issues that interested him on his school computer – topics like gun violence or pollution in the oceans. Now,

³ <https://www.nimh.nih.gov/health/statistics/suicide.shtml> figure 2. I cannot find a suicide rate specifically for the K-12 age group, but the pattern is clear

“I’ve been forced into a corner, where I only do school stuff at school, even if there’s no more school stuff to do,” he said.

Talking Down a Well

The Covid pandemic resulted in almost all U.S. schools abandoning classroom instruction in favor of online classes, which meant that all students had to have access to computers, whether provided by the school or owned by them or their parents. That raised an interesting issue on which, unlike most of what I have been discussing, I have mixed views. Should students be required during class to have their computer cameras on in order that the teacher can see their faces?

The argument against is that everyone in the class can see not only the student’s face but whatever else is in front of his camera, which might be something that embarrasses him, his messy bedroom or the evidence, from the conditions he lives in, that he is poor. There is, however, a trivial solution to that problem, at least with Zoom and some other software — just use a picture of something as a background so that all that shows is the student’s face. The school could even provide students with a photograph of a classroom and suggest using that.

One argument for such a requirement is that having the camera on lets the teacher tell whether the student is there and, if he is, whether he is reading a book, watching television, or doing something other than paying attention to the class. I find that argument unconvincing for reasons discussed in chapter XXX. In the words of Adam Smith, “No discipline is ever requisite to force attendance upon lectures which are really worth the attending, as is well known wherever any such lectures are given.” The negative effect of compulsory attendance on the incentives of the teacher is more significant than any positive effect it has on the incentives of the student.

On the other hand, conversation works much better if you can see the person you are talking to. A very long time ago I gave a speech in Italy from California, over the telephone. It felt like talking into a well. Somewhat later, I gave a talk in the Netherlands from California, from a room at my university one wall of which was a video screen. It worked much better. From my standpoint and, I presume, that of the audience, we were simply on opposite sides of a long room. Later still, I gave a talk in the country of Georgia from my office, using a lower tech version of the same approach. I was facing my desktop’s camera which fed my image over the internet to a screen facing the audience. The audience had a video camera pointed at them, with its picture feeding to my screen.

Nowadays I do the same thing with Zoom or one of its competitors. For the one on one version, an hour a week chatting with my grandson, I use Skype. It is not quite as good as being in the same room in realspace but a great deal better than speaking to a blank screen would be. When I do an online talk, of which I have done quite a lot during the pandemic, I try to make sure that at least some of the audience will have their faces visible on screen, so that I am talking to someone.

Not down a well.

Which is an argument for getting students to be visible to the teacher and each other during a virtual class — as they would be in class in realspace.