

Conjunctivitis (Pink Eye) Outbreak Traced Back to School's Public Keyboards

Geisel School of Medicine at Dartmouth College

Pete Fletcher, IT Director

In June 2008, I was hired as a User Support Consultant at Dartmouth College. In the fall, my responsibilities expanded and part of my new role was to look after the 300+ public machines around the campus. This included looking after both the software and hardware of these machines.

I decided that I would talk to students and staff who use the public machines and get their feedback on them. Some of the feedback I received was the following:

- People tended not to use the public machines near restrooms. This was because they thought not everyone was washing their hands when using the restrooms, and then would use the keyboards upon exiting.
- The machines nearest dining areas were often broken because people would spill drinks or drop food on them.
- Students also mentioned that they were put off using these keyboards because of how dirty they were.

Taking this information, I decided to clean and disinfect the keyboards with disinfecting wipes, Lysol, Fantastic and other common place cleaners. I replaced the keyboards that were too damaged. I also hired a student who would walk around each week and clean the keyboards.

I found at the end of the fall term of 2008 I needed to replace more keyboards because of spilled drinks (soda's being the worst because of the sugar content, it stuck all the keys together). I also discovered quite a number of students (estimated around 200-300) had contracted a Pink Eye. Among other ways the infection was spreading were public keyboards. We found that people were rubbing their eyes and then using the keyboards. This enabled the Pink Eye to spread.

We again replaced keyboards and began to disinfect machines. I found that the cost of replacing and cleaning keyboards was rising at an alarming rate. I needed to find a better solution.

In January 2009, I was in a staff meeting and a colleague had just returned from CES. He was talking about a company that had been there called "Seal Shield". He said that they had Antimicrobial and dishwasher safe keyboards. Immediately, he had my attention.

I contacted Seal Shield and decided to purchase four "Silver Shield" keyboards as a trial. As soon as they arrived, I put them in a high traffic area near a dining location. As luck would have it, within two days a student had dropped a large soda over the keyboard. We ran the keyboard through the dishwasher and it came out looking like new (fully working too). On this basis alone, I ordered another twenty keyboards straight away.

With the new Seal Shield keyboards in hand, I began to replace the keyboards on the public machines. The result was the Pink Eye infection outbreak stopped almost instantly. I then ordered more keyboards to replace ALL the keyboards on the public machines.

From the time we installed Seal Shield keyboards, the number of replacement keyboards are almost zero. There have been no reported cases of Pink Eye. Because the keyboards are run through a dishwasher at the end of each term, students and staff are much happier at the clean look. I also explained to the students that the keyboards on the public machines are Antimicrobial. They are amazed by this and are happier to be using them.