Case Study

The Virus is Worse than the Cure

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You are a faculty member at OldBoy PolyTechnic, a small residential school in MidNowhere. Your friend Fredda, in the computer science department, has come to ask your advice. You know her to be a reliable, level-headed and honest person. She reminds you of all the difficulty the campus has been having with very destructive computer viruses. She tells you of some new problems with viruses.

You are surprised at this because you remember the director of computer services saying that computer services had taken some major steps against the spread of viruses on the campus. In all of the student computer laboratories the school had installed automated virus scanners; software they had purchased from TrustUs Computing. Whenever a disk is inserted into a lab machine it is automatically virus scanned. If a virus is detected the machine stops some it cannot be infected and it can only be reactivated by a laboratory monitor, who confiscates the student disk.

Fredda is teaching a very large section of a computer programming class and has been pleased with the effectiveness of the virus protection scheme. In the past few weeks however several students have reported damage to their disks. Fredda was puzzled why there was suddenly a problem. When she checked the student's disks on her personal virus checking program-- ExposeIt, one which she purchased from a different software company, the virus is always detected. When she takes the student disk to the school computer lab, she finds that the school's scanning program does not always detect this stealth virus.

She reports this problem to the director of computer services who says he cannot do anything. When they purchased the program from Trustus, they also purchased semi-annual updates which would take care of newly discovered viruses. The update was not scheduled to arrive until the end of the semester. She then went to the Vice President in charge of computing who said that technical decisions like this are made by the director of computer services.

Fredda was upset by all of this. She believes that it is essential to her teaching that students have hands-on programming experience. She has a major programming assignment coming up next week and she doesn't know what to do.

She explains her problems to you. If she drops the programming from the course, she feels she has cheated the students and not adequately prepared them for future programming courses. If she drops programming from the course, she feels she is not fulfilling her contract with the university to do the best job she can.

She feels she cannot require the class to do write programs in an infectious environment. But very few of the students own their own computers, so they must rely on the school's computers. The school's computers do not detect this new infection, so if she were to require students to use these machines she would aid in the spread of the virus.

She has several student aides who help her test the class's programs, some of these student aides have their own computers but they are not equipped to detect this virus. Fredda had always required that her student aids checked all class programs for viruses using the school's virus system before the aids took the programs to their dorm rooms to test them on their own machines. This is no longer a reliable way to project the aides' machines from a destructive infection.

Fredda has the disks from a recent assignment which she is about to give to her aides. This is not a problem, because she has personally checked all 213 disks using ExposeIt. The problem is that several of the aides use their personal computers to do tutoring. Their machines might already be infected and infect her class' disks.

Fredda, wants to give a copy of ExposeIt to each of her aides, so they can do their job safely, but ExposeIt is a very expensive program and she cannot afford to purchase copies for her aides. The school has declined to purchase any copies of this program. She is thinking about making illegal copies of ExposeIt to protect her aides' computers. In addition she is also thinking of supplying her class with copies of the program so that they can work effectively in her class. She knows that she would be violating the copyright laws, but she want to know if you think she would be right to do this.

Part of her problem is that she has been discussing ethical responsibilities with her class and she wonders how she can explain her actions to her aides and to the class.

How would you help her protect the parties involved? What would you advise her to do?