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## Consider the Risks of Helping Friends with PC Problems

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If you are known as a computer enthusiast, your less-experienced friends probably come to you for help when they run into problems. However, you should consider the risks before you agree. While you have a lot of computer experience, most of it is probably limited to your own system, which you are careful to maintain and back up regularly. You also are aware of the risks and avoid suspicious Internet sites, are alert to e-mail scams, and have installed protection against malware. This may not be true of the owner of a PC you are asked to repair.

I once agreed to help a friend who was complaining about his laptop being slow. My first clue that I was in over my head was when I saw the missing keys on the keyboard, but by then I was already committed. I did what I could to clean things up, but the slow processor, full disk, and inadequate RAM remained, and my several hours of work produced little improvement. Another experience was more successful. A PC was thoroughly infected with malware when a teen-age son downloaded pirate music. I cloned the disk, mounted it on another PC, and deleted the problem files. The owner used the restoration partition to put the disk back to its condition when the PC was purchased, after which I loaded their files from the sanitized clone disk. This too took several hours.

Your friends may have unrealistic expectations. If the problem appears to be a full disk or inadequate RAM, the money spent on the parts may not result in a dramatic performance improvement. If you suspect malware and recommend they purchase anti-virus software, it may not fix the problem, and may even slow their PC. You’ve cost them money without fixing the computer to the degree they expected. And once you’ve mucked about with their PC, they may suspect that any subsequent troubles are your fault.

Finally, because you are working in an unfamiliar environment, you will probably be spending many hours, even if you aren’t successful. Repairing someone else’s PC is usually a lose-lose situation. If you fail, you lose a friend, and if you succeed you’ll most likely be asked to do it again. The bad habits and poor maintenance that led the initial problem are still present.

If you decide to help, what are some reasonable actions? Your first concern, of course, is to safeguard the owner’s information, which means cloning the entire disk (or disks) to an external drive, which can take several hours. Note that this means you copy every byte, not just the complete files. By doing so you may be able to recover deleted and damaged files, directories, and partitions, should that be necessary. If the problem PC is dead, you will of course have to remove its hard disk and install it in a good computer to clone it.

Before you try to diagnose the problem, recognize that you may not be able to trust either the hardware or software in the problem PC. My preference is to use a USB memory stick with a bootable diagnostic operating system, such as PartedMagic, which has tools to check hardware, recover files, and test for malware. (See my articles in June, July, and August, 2012 on file recovery, in April 2012 and February 2017 on PartedMagic, in May 2015 on the Trinity Rescue Kit, and in June 2015 on the SystemRescueCD, all available at [www.bcug.com](http://www.bcug.com/).) Whichever diagnostic tool you use, become familiar with it on your own PC before trying it on one with which you aren’t familiar.

If you save the user’s files you should check them for malware before reinstalling them on a repaired or new PC. Take the clone disk home and run a thorough malware check. (Parted Magic, in particular, has the relatively weak ClamAV, which checks only and doesn’t repair. If you use Windows, you most likely have far better software on your machine.) Once you have cloned a disk, you can use PartedMagic’s tools, or those of a similar system, to recover damaged files. If, as is likely, the problem PC runs Windows, some user data (for example, Internet favorites and e-mail) may be stored in the system area. The locations vary with the version and restoring them in a new system may be difficult. Before spending a lot of time, ask the owner if they really need to recover these.

Although it can be very time-consuming, you can attempt to clean up the file system. This means removing malware, pop-ups, spurious menu bars, and the like. It may also require disabling programs that launch at boot time, and perhaps editing the registry. This is likely to be frustrating as the owner still has the bad habits that caused these problems, meaning the will most likely recur.

Before you agree to anything, try to find out how the problem began. Did they install hardware or software? Did they see a pop-up or get a phone call or message advising them of a problem? Did they visit a new website? Did they delete files or directories by mistake? Did the symptoms appear suddenly of build over time? You are trying to discover whether the problem resulted from hardware failure, software failure, malware, or operator error.

If you have decided to help, this is what I recommend. (Most likely you’ll modify these steps to fit your own experience and tools.) Before you begin, be sure the user understands that you are an amateur, and that you can’t guarantee success.

* For a casual friend, find out what you can over the phone and recommend a shop.
* If you decide to get more involved, go to the house with a diagnostic USB memory stick and check the hardware and file system. Write down what you find and recommend a shop.
* If this is a very good friend or a close relative, tell them not to use the PC until you can image their PC’s disk. (If you don’t have a spare USB hard disk they will have to purchase one for the purpose.) Then use your diagnostic memory stick to create an image of the system disk on the external one.
* If the hardware is good, use the restoration partition to return the PC file system to its state at purchase time. (In the unlikely case that the owner has a valid Windows installation disk, you don’t need a restoration partition.)
* If the hardware has failed, the owner can decide whether to have the PC repaired or replace it. After this, do what you can to restore the data you have saved, but make it clear that some may be lost.
* Be sure the owner understands that a new PC or a clean install of the operating system means any applications installed after purchase will be lost unless he or she has their original installation disks.
* The last option is to attempt a repair. However, before you jump into this tar pit, be sure the owner understands and accepts the risks. He or she should purchase the parts, with your advice of course. Be sure to make clear that you are amateur in unfamiliar territory and that success is not assured. For example, if the disk has failed because of a faulty power supply, its replacement may be damaged immediately. Who pays?

This is not to say you shouldn’t try to help, but it would be prudent to think about your possible approaches as well as the risks before you get the phone call. You don’t want to disappoint a friend or cause them to lose money.