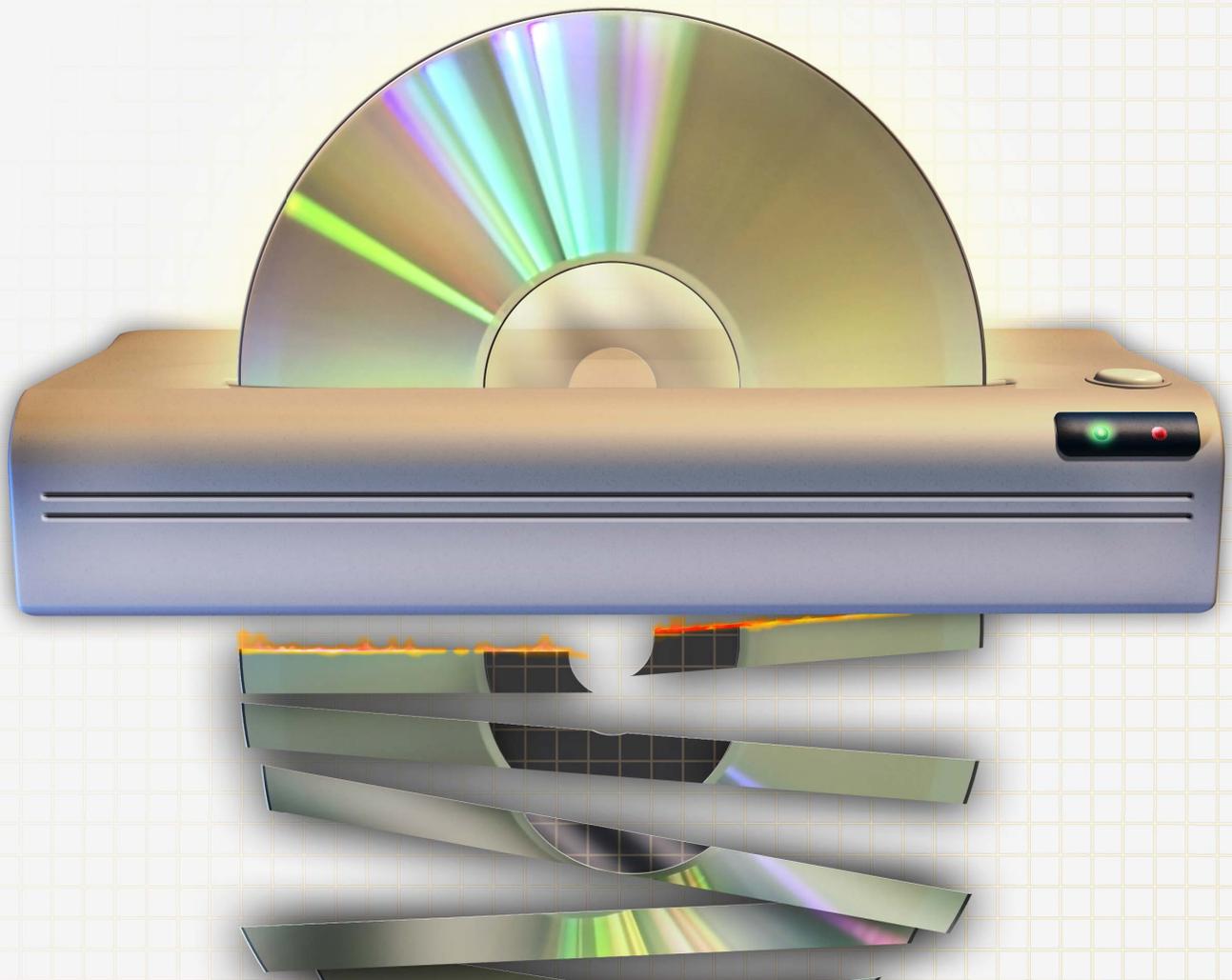


Data Destruction

You may not realize it, but emails, documents and any other files are still on your computer after you delete them. Permanently erasing your data requires something called wiping.



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THE INNOVATIVE
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Data Destruction

Computers, smartphones and other technology allow us to store a tremendous amount of information. Much of this information is very sensitive, such as work documents, emails, personal photos, instant messages and recorded phone calls. Over time, you most likely delete most of this information, believing that once it's been deleted, the information is gone forever and can never be found or recovered. Unfortunately, this is not true.

When you delete information, the files are still there. You may believe these files are safely eliminated, but they are not. Even reformatting the hard drive or installing a new operating system is not enough to remove old, deleted files. Anyone who has access to the device that stores the data can easily find and recover the deleted files on it. If you want to permanently erase your files so no one can ever access them, you will need to “wipe” them from your computer.

Solution

When a computer opens or saves your files, it uses something similar to the table of contents found in a book. This table of contents indexes all the files on your computer. When your computer needs to find a file, it looks first in the table of contents. When you delete a file, your file's entry is removed from the table of contents. The computer thinks the file is no longer there and the hard drive space is free, but the file and its contents are still on your hard drive. As you use your computer over time, these deleted files are overwritten by new files, which truly erases them. However, as long as your deleted files have not been overwritten, they can be found and recovered. Wiping is a process that ensures a file is truly erased for good. Wiping works by not only removing the file from the table of contents, but also by overwriting every byte in your file with random data. Once wiped, a file is gone forever; it cannot be recovered.

What to Wipe and How

The first step to ensuring you effectively wipe data is determining where you have data stored. You may be surprised at all the different devices that store digital data, such as copier machines, printers or your camera. When disposing of a device, always make sure you wipe it first. Depending on your operating system, your computer may already have an option to securely wipe data (often called secure deletion). If your device does not have a wiping option, then you will need to use a special program to wipe the sensitive data. To learn more about tools for wiping, contact the help desk or information security team. Finally, here are some different ways you can wipe your data.

Data Destruction

Wiping by File

With this method, you can choose to quickly wipe an individual file, multiple files or entire folders instead of deleting them.

Wiping by Deleted Space

With this method, your computer wipes all previously deleted files on your drive. Everything you deleted in the past that could have still been recovered is securely wiped. This ensures these documents can never be recovered.

Wiping by Drive

With this method, you can wipe an entire drive. This is often done when you want to dispose of an old computer, sell a used smartphone or perhaps give someone your old USB memory stick. There is a tremendous amount of data stored on these devices, both deleted and active. As such, this is one of the most secure steps you can take before disposing of a device.



Recovering Deleted Files

There are a variety of tools and methods you can use to recover your deleted files. When you delete a file on most Windows or Mac computers, that information is actually copied to a different part of your computer called the Recycle Bin or Trash Can. These are nothing more than just another folder. If you want to recover deleted information, you simply need to open the Recycle Bin and select Restore All Items. You can also pick individual files to recover.

Keep in mind that when you empty the Recycle Bin, the information is deleted from the folder and no longer available. Remember, even though this deletes the files, they are still on your computer. It is only their entry in the table of contents that has been removed. It is still possible for people to use special programs to find and recover these deleted files.

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