Marché de la science – M1 - DISQUE DUR – Texte à traduire

What’s a HDD?

A Hard Disk Drive (HDD for short) is a type of storage commonly used as the primary storage system for both laptop and desktop computers. It functions like any other type of digital storage device by writing bits of data and then recalling them later. It stands to mention that an HDD is what’s referred to as “non-volatile”, which simply means that it can save data without a source of power. This feature, coupled with their large storage capacity and their relatively low cost are the reasons why HDDs are used so frequently in home computers. While HDDs have come a long way from when they were first invented, the basic way that they operate has stayed the same.

How does a HDD physically store info?

Inside the casing there are a series of disk-like objects referred to as “platters”. The CPU and motherboard use software to tell what’s called the “Read/Write Head” where to move on the platter and where it then provides an electrical charge to a “sector” on the platter. Each sector is an isolated part of the disk containing thousands of subdivisions all capable of accepting a magnetic charge. Newer HDDs have a sector size of 4096 bytes or 32768 bits. Each bit’s magnetic charge translates to a binary 1 or 0 of data. Repeat this stage and eventually you have a string of bits which when read back can give the CPU instructions, whether it be updating your operating system, or opening your saved document in Microsoft Word.

<https://blogs.umass.edu/Techbytes/2017/04/04/hard-drives-how-do-they-work/>