Edison cylinder phonograph

be considered a storage device

On a reel-to-reel tape recorder

tape is a data storage medium.

(Sony TC-630), the recorder is data

storage equipment and the magnetic

Various electronic storage devices,

DNA and RNA can be

storage media.[1]

Computer memory and

Volatile

Non-volatile

Historical

ROM

NVRAM

Optical

Historical

Early-stage NVRAM

Analog recording

In development

considered as biological

show

show

show

[show]

[show]

[show]

[show]

[show]

show

V.T.E

with a coin for scale

c. 1899. The phonograph cylinder is a storage medium. The phonograph may

especially as machines of this vintage

were able to record on blank cylinders.

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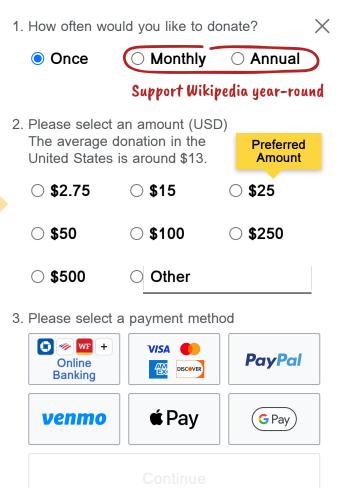
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Maybe later

Data storage 文A 19 languages ~ Article Talk Read Edit View history Tools From Wikipedia, the free encyclopedia

> This article **needs additional citations for verification**. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.

This article is about all forms of data storage. For data storage on computers in particular, see Computer data storage.

WIKIMEDIA

Find sources: "Data storage" – news · newspapers · books · scholar · JSTOR (February 2018) (Learn how and when to remove this message) Data storage is the recording (storing) of information (data) in a storage medium. Handwriting, phonographic recording, magnetic tape, and optical discs are all examples of storage media. Biological molecules such as RNA and DNA are considered by some as data

storage. [1][2] Recording may be accomplished with virtually any form of energy. Electronic data storage requires electrical power to store and retrieve data. Data storage in a digital, machine-readable medium is sometimes called *digital data*. Computer data storage is one of the core functions of a general-purpose computer. Electronic documents can be stored in much less space than paper documents. [3] Barcodes and

magnetic ink character recognition (MICR) are two ways of recording machine-readable data

A recording medium is a physical material that holds information. Newly created information is

Recording media [edit]

on paper.

distributed and can be stored in four storage media-print, film, magnetic, and optical-and seen or heard in four information flows-telephone, radio and TV, and the Internet [4] as well as being observed directly. Digital information is stored on electronic media in many different recording formats.

With electronic media, the data and the recording media are sometimes referred to as

"software" despite the more common use of the word to describe computer software. With (traditional art) static media, art materials such as crayons may be considered both equipment and medium as the wax, charcoal or chalk material from the equipment becomes part of the surface of the medium. Some recording media may be temporary, either by design or by nature. Volatile organic

compounds may be used to preserve the environment or to purposely make data expire over time. Data such as smoke signals or skywriting are temporary by nature. Depending on the volatility, a gas (e.g. atmosphere, smoke) or a liquid surface such as a lake would be considered a temporary recording medium if at all. Global capacity, digitization, and trends [edit]

A 2003 UC Berkeley report estimated that about five exabytes of new information were

This section is an excerpt from Mass storage. [edit]

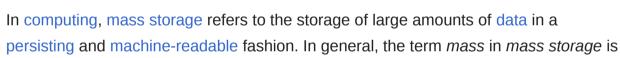
produced in 2002 and that 92% of this data was stored on hard disk drives. This was about twice the data produced in 2000. ^[5] The amount of data transmitted over telecommunications systems in 2002 was nearly 18 exabytes—three and a half times more than was recorded on non-volatile storage. Telephone calls constituted 98% of the telecommunicated information in 2002. The researchers' highest estimate for the growth rate of newly stored information (uncompressed) was more than 30% per year. In a more limited study, the International Data Corporation estimated that the total amount of

global storage capacity for the first time. [6] A 2011 Science Magazine article estimated that the year 2002 was the beginning of the digital age for information storage: an age in which more information is stored on digital storage devices than on

digital data in 2007 was 281 exabytes and that the total amount of digital data produced exceeded the

analog storage devices. [7] In 1986, approximately 1% of the world's capacity to store information was in digital format; this grew to 3% by 1993, to 25% by 2000, and to 97% by 2007. These figures correspond to less than three compressed exabytes in 1986, and 295 compressed exabytes in 2007.^[7] The quantity of digital storage doubled roughly every three years.^[8] It is estimated that around 120 zettabytes of data will be generated in 2023, an increase of 60x from 2010, and that it will increase to 181 zettabytes generated in 2025. [9]

data storage types $Mass\ storage\ \ [\,{\tt edit}\,]$ General



used to mean large in relation to contemporaneous hard disk drives, but it has also been used to mean *large* relative to the size of primary memory as for example with floppy disks on personal computers. Devices and/or systems that have been described as mass storage include tape libraries, RAID systems, and a variety of computer drives such as hard disk drives

(HDDs), magnetic tape drives, magneto-optical disc drives, optical disc drives, memory

cards, and solid-state drives (SSDs). It also includes experimental forms like holographic memory. Mass storage includes devices with removable and nonremovable media. [10][11] It does not include random access memory (RAM). There are two broad classes of mass storage: local data in devices such as smartphones or computers, and enterprise servers and data centers for the cloud. For local storage, SSDs are on the way to replacing HDDs. Considering the mobile segment from phones to notebooks, the majority of systems today is based on NAND Flash.

As for Enterprise and data centers, storage tiers have established using a mix of SSD and HDD. [12]

See also [edit] Archival science Fuzzy bit Blank media tax Information Age

- Computer data storage Computer memory
- Content format
- Data retention Data transmission
- Digital dark age Digital preservation
- Digital Revolution Disaggregated storage
- Distributed block storage
- Disk drive performance characteristics Disk storage
- Electronic quantum holography External storage
- Format war • Flip-flop (electronics)
- References [edit]
- Library

IOPS

- Magnetic tape Media (communication)
- Media controls Medium format (film)
- Memristor Nanodot
- Nonlinear medium (random access)
- Plant-based digital data storage
- Recording format Semiconductor memory
- Software-defined storage Volatile memory
- Visual arts

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Further reading [edit]

The Evolution of Data Storage △

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History of Storage from Cave Paintings to Electrons

• Timeline of Milestones in Storage Technology [permanent dead link] at Computer History Museum [2]

V•T•E	Data	[show]
V·T·E	Computer files	[show]
V·T·E	Magnetic storage media	[show]
V•T•E	Optical storage media	[show]
V•T•E	Paper data storage media	[show]
V•T•E	Primary computer data storage technologies	[show]
V•T•E	Writing and writing material	[show]
V•T•E	Memory cards	[show]
Authority control databases: National	Czech Republic 년	

• Bennett, John C. (1997). "'JISC/NPO Studies on the Preservation of Electronic Materials: A Framework of Data Types and

Categories: Data storage | Data management | Film and video technology | Mass media technology | Recording Sound production technology

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