Scientists successfully use DNA to store and retrieve data

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Biological rather than electronic storage may become the next big thing in computer science. Researchers from the European Bioinformatics Institute in Britain and Agilent Technologies in California have successfully used DNA to store and retrieve computer files including images, text and audio.

DNA drives all life on the planet. It is the carrier of the genetic code for everything from bacteria and viruses to plants and humans.

A single DNA molecule might have two billion steps, making it ideal for holding large amounts of data. It is also very good at copying itself and at high accuracy.

The researchers did not rely on a living organism for the DNA. They created some using a DNA synthesiser.

They used DNA to store 739 kilobytes of information, including a sound clip of Martin Luther King’s “I have a dream” speech. The researchers translated the files “into a DNA code, synthesised this DNA, sequenced it and reconstructed the original files with 100 per cent accuracy”, the authors write in Nature.

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