



Choose language



Radio Russia World News Opinion & Analysis Society Politics Business Culture History Sports US Elections 2012

radio THE VOICE OF RUSSIA

World service USA Live

Frequencies Schedule

US Edition website UK Edition website

2015 will be special Russia-Poland year

Search

Sochi sprucing up for Olympic countdown

US Foreign policy under Obama-2

German airports hit by security staff strike

Total evacuates African staff

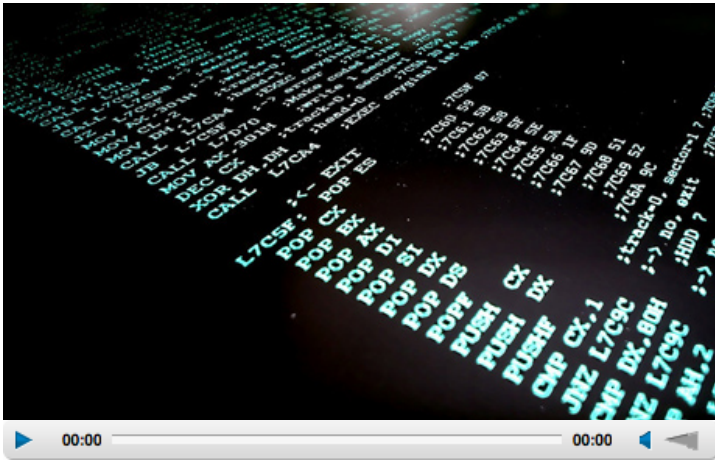
Pope follows pro-life march via Twitter

Use synthetic DNA to store your pics and favorite films

Tags: Sci-Tech, Opinion & Analysis, information, World, data protection, information technology, scientific researches

Daniel Cinna

Jan 25, 2013 15:09 Moscow Time



Download

© Flickr.com/hj barraza/cc-by-sa 3.0

If you've ever thought that there's not enough space to store all your CDs and digital photos then scientists have the answer for you! Researchers at the European Bioinformatics Institute say every film and TV programme ever made will now fit inside a teacup - using new DNA technology. All such data can be transformed into special synthetic material - creating a tiny piece of DNA. To explain more we joined by co-author of the study, Dr Nick Goldman.

Well, just like we're used to storing information in computer, where inside computer it's stored as a series of zeros and ones in a binary code, we realize that we can write a computer program that would read zeros and ones in any file on our computer disk drive and convert that into a language which uses just the letters A, C, G and T.

And we chose that, because those four letters are what is used to represent the basis of D.N.A. sequences, just like in human genome or any living organism. We've also made a code that can create this sequence of A, C, G and T - machines can actually make the physical D.N.A. that corresponds to that code.

What kind of size are we talking about?

It's incredibly small. In the experiment we did, we stored almost 1 Mbit of files from the hard disc drive of computer. And that came in a test tube half the size of your little finger. And I thought that it was empty, it's a tiny speck of white dust at the bottom of the test tube.

What could we use this technology for?

The thing that's really good about DNA is that it lasts very long time in a very stable form and you don't need to give any special condition to do that. You keep it cool and dry and in the dark - it'll survive unaltered for tens of thousands of years. So if you're thinking about a long-term archive of really important information like the Library of Alexandria, which didn't have a backup, unfortunately, that's the kind of application where we might be able to put it in D.N.A. and save it

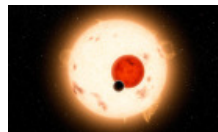
Follow @VoiceofRussia

4,201 followers

Recommended



Will Russia have new intelligence informational system soon?



Next galaxy crash unveiled



The demise of Western civilization: Rated XXX



Drinking and fighting in England and Russia



Update: End of the world cancelled by Putin with 15 hours left

Most recent

News, January 26, 2013

23:01 Thousands rally in Washington for gun control

22:29 39 die in Egypt protests over soccer massacre verdicts

22:14 Olympics commemorated by music making

22:12 Troops fire teargas at Palestinians in W.Bank clash

22:08 Shakespeare was part of love triangle in which all three parties contracted syphilis?

22:05 Eurozone crisis largely over - Lagarde

22:04 Milos Zeman next Czech President

21:25 2015 will be special Russia-Poland year

21:23 Russia's Antarctica outposts get connected

21:22 Egypt crisis looked into by National Defence Council

Most popular

Schwarzenegger comes to Moscow: I'll be back for Sochi Olympics 2014 (VIDEO)

US scientists warn of N.Korea nuke tests

Russia enters Top 10 of countries with most transparent budgets

Dr. Theofanis Exadaktylos

Lecturer in European Politics at Surrey University, UK



UK's Cameron 'tip toeing' on thin EU-scepticism line

Dr. Georgy Toloraya

Director of Korean Studies at the Russian Academy Institute of Economy



N Korea's new round of nuclear struggle

Dr. Mark Baimbridge

Senior lecturer in Economics at the University of Bradford



Cameron's EU pledge: Is UK in for rocky economic future?

Craig Rouskey

Micro-biologist, citizen scientist and organizer with Occupy San Francisco



Taking apart and rebuilding government policy is hacktivism

Vladimir Orlov

President of the Russian Center for Policy Studies (PIR), Moscow



Will dovish Hagel make US less trigger-happy?

Jonathan Spyer

Senior research fellow at the Global Research in

for a really long time.

So you've already encoded Shakespeare's sonnets and speech by Martin Luther King. Would I be able to store personal information, like my favorite films or photos in my own D.N.A?

I wouldn't advise you to put it in your own D.N.A. We're using synthetic D.N.A. that's completely different code to that of living organisms. But in our code you could write into synthetic D.N.A. the film or your MP3 collection or anything you want – it would however be very expensive at today's prices.

And how long will this kind of information last?

It'd last for 10,000, 20,000 or 50,000 years if you keep it safe.

Tweet 3



Related articles

- ▶ [Shakespeare was part of love triangle in which all three parties contracted syphilis?](#)
- ▶ [Beware of 'micro-terrorists' inside yourself: bacteria are getting drug resistant faster than you think](#)
- ▶ [Smoking rates first in death risk list](#)
- ▶ [Is there life on Mars?](#)
- ▶ [Japanese scientists succeed in generating kidney tissue from stem cells](#)
- ▶ [Can we revive Neanderthal man?](#)
- ▶ [Is there any connection between virtual and real violence?](#)



America's new world order



The President of the International Fencing Federation Alisher Usmanov speaks



Figure skating: Russian nationals in Sochi will form country's lineup for



Russian humanitarian aid bound for U.S.



Who needs Patriots in Turkey? Catalan separatist losing steam, President Morsi



US, China compete for the role of "king of sea"

[Auschwitz – history to be remembered but never repeated](#)

[US drone - a warrior sword or headman's axe?](#)

Tags

eurozone 2012 Summer Olympics START Treaty missile defense war in Libya World War II Kyrgyzstan debt crisis in Greece protests in Syria Libya weather earthquake Iraq tennis Great Britain football terrorism Georgia Ukraine Fukushima-1 Afghanistan Iran US presidential elections 2012 Israeli-Palestinian conflict Pakistan Israel elections Dmitry Medvedev **Syria** Vladimir Putin China space European Union ISS Russian-US relations **US** France European economy blast North Korea NATO Egypt unrest Iranian nuclear issue **Interview** flood Taliban Egypt Greece Syrian opposition Barack Obama



[Polls reveal future Israeli leaders](#)

Dr. Robert Gagnon

Associate Professor of New Testament Pittsburgh Theological Seminary



[The state demanding support for gay marriage](#)

Recommended



Europe is falling to pieces



New ship will make Russia superpower on sea, experts say



Divided States of America: secession from US is a close call - scholar



Russia prepares a response to US missile defence plans



5 high-end Su-34 bombers join Russian air fleet



Angel caught on tape in Jakarta



Pope condemns Pussy Riot

