TRIZ SUMMIT 2023

TRIZ Developers SUMMIT

TRIZ BIOPHARMA

RUSAL

TRIZ MASTER

Активация Windows
Чтобы активировать Windows, перейдите в раздел "Параметры".

TRIZ SUMMIT 2023

Pavel Amnuel

Technology Forecasting in Futurology and Science Fiction

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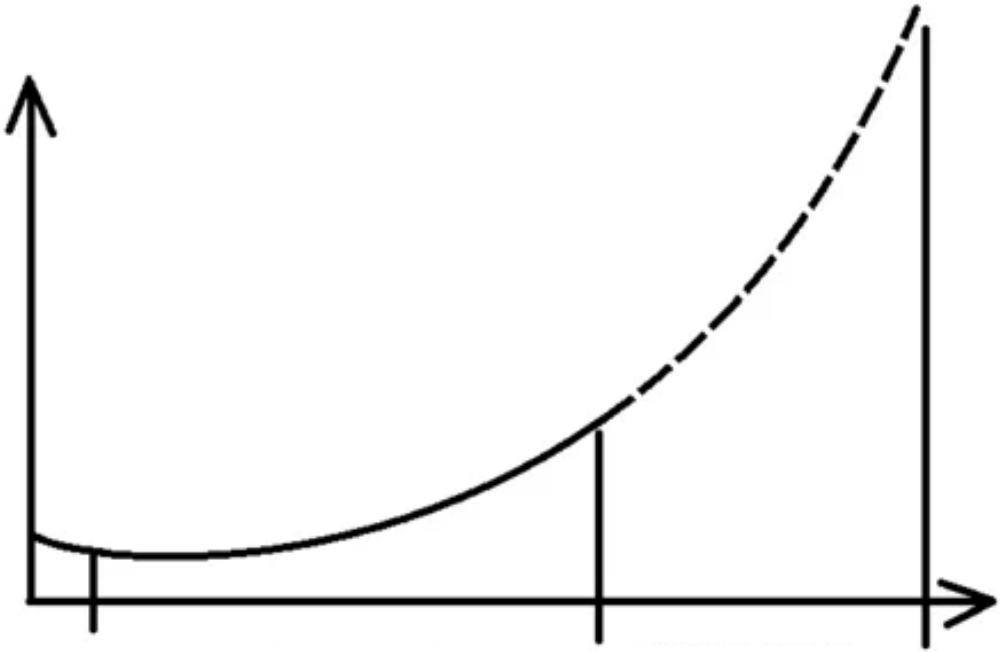
FUTUROLOGY

Активация Windows

APPROACHES IN FUTUROLOGY

EXTRAPOLATION



APPROACHES IN FUTUROLOGY

EXTRAPOLATION

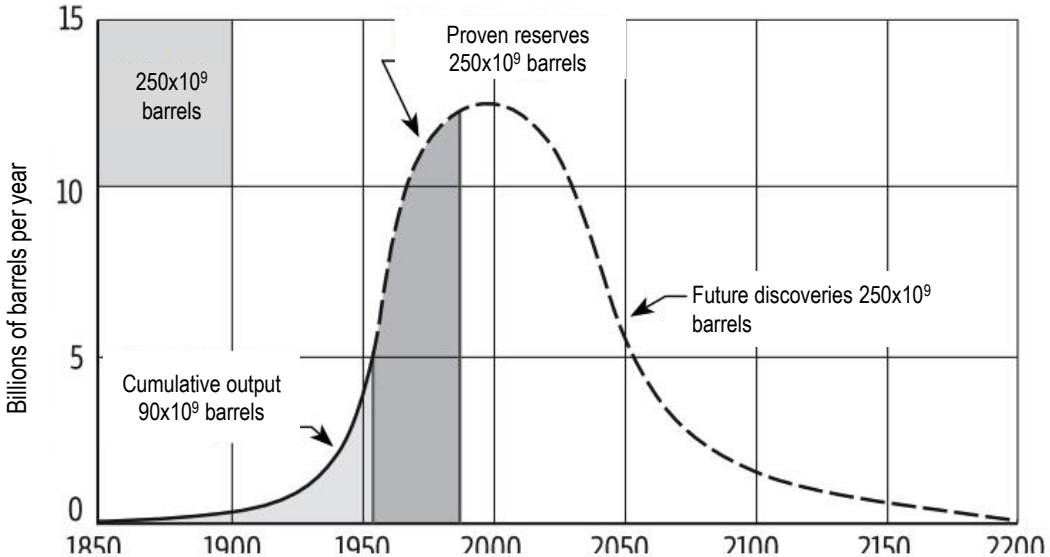
Technological singularity

Ray Kurzweil

APPROACHES IN FUTUROLOGY

EXTRAPOLATION

Кривая Хабберта



APPROACHES IN FUTUROLOGY

EXTRAPOLATION

Mathematical modelling

APPROACHES IN FUTUROLOGY

EXTRAPOLATION

Mathematical modelling

Forecasting by analogy

APPROACHES IN FUTUROLOGY

EXTRAPOLATION

Mathematical modelling

Forecasting by analogy

Induction method

APPROACHES IN FUTUROLOGY

EXTRAPOLATION

Mathematical modelling

Forecasting by analogy

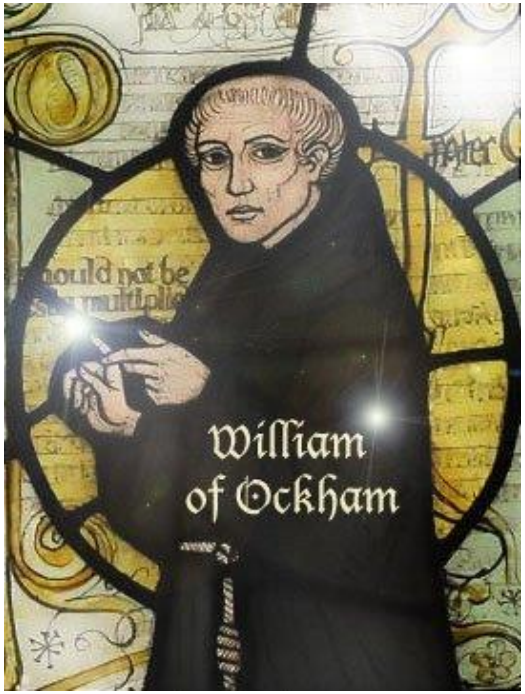
Induction method

Trends

APPROACHES IN FUTUROLOGY

EXTRAPOLATION

Occam's razor



APPROACHES IN FUTUROLOGY

EXPERT SURVEY

APPROACHES IN FUTUROLOGY

EXPERT SURVEY

Delphi method

APPROACHES IN FUTUROLOGY

EXPERT SURVEY

Delphi method

Brainstorming

APPROACHES IN FUTUROLOGY

EXPERT SURVEY

Delphi method

Brainstorming

Sociological survey

APPROACHES IN FUTUROLOGY

EXPERT SURVEY

Scenario method

APPROACHES IN FUTUROLOGY

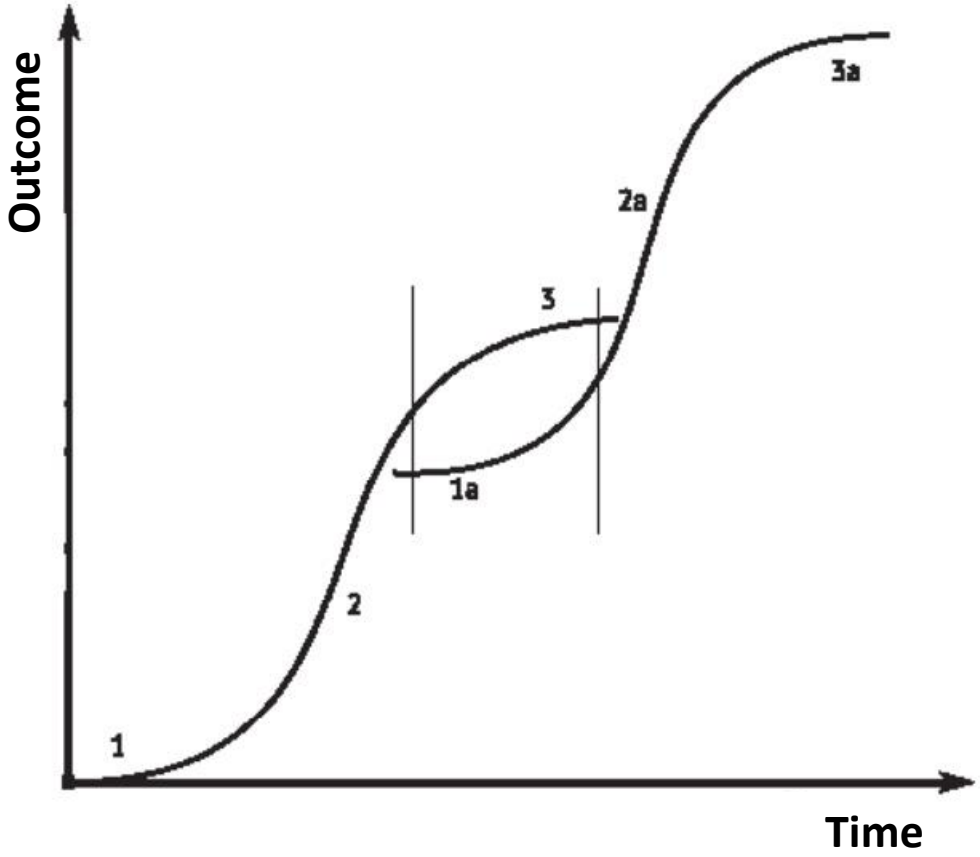
FORESIGHT

APPROACHES IN FUTUROLOGY

BLACK SWAN

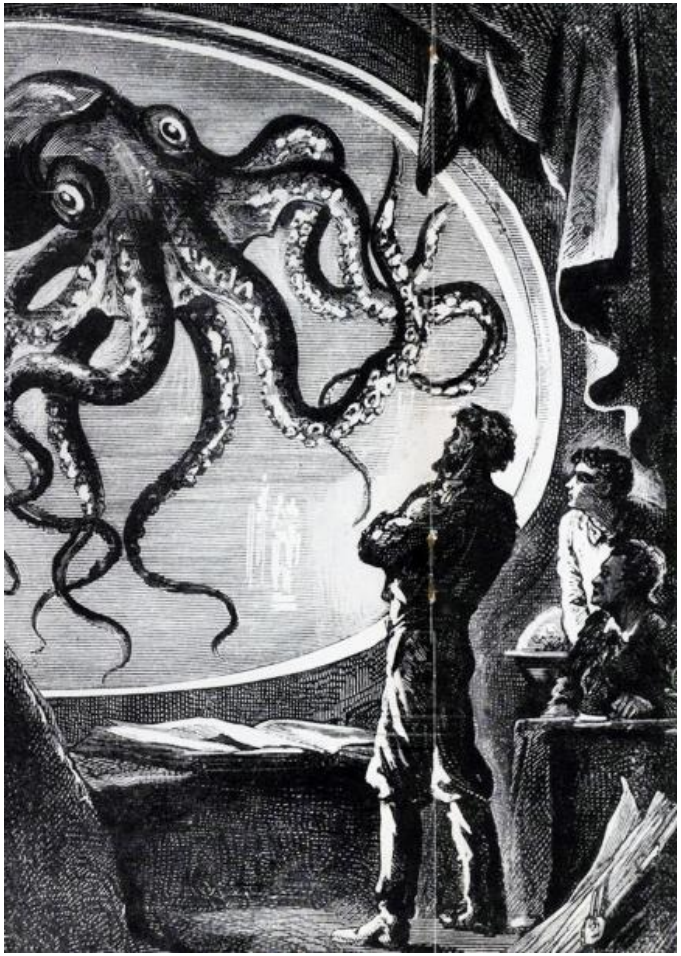
Nassim Taleb

SCIENCE FICTION



S-curve
New
QUALITY

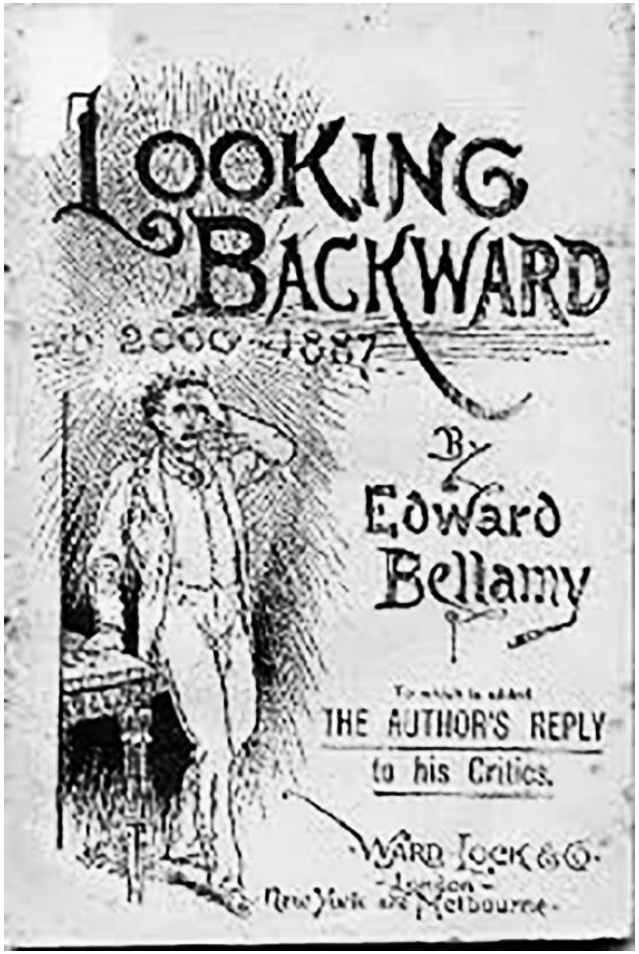
SCIENCE FICTION



1870. Twenty Thousand Leagues Under the Seas by Jules Verne

Protection against high voltage. Electric projectiles. Double hull.

SCIENCE FICTION



1887.
Looking Backward
by Edward Bellamy.

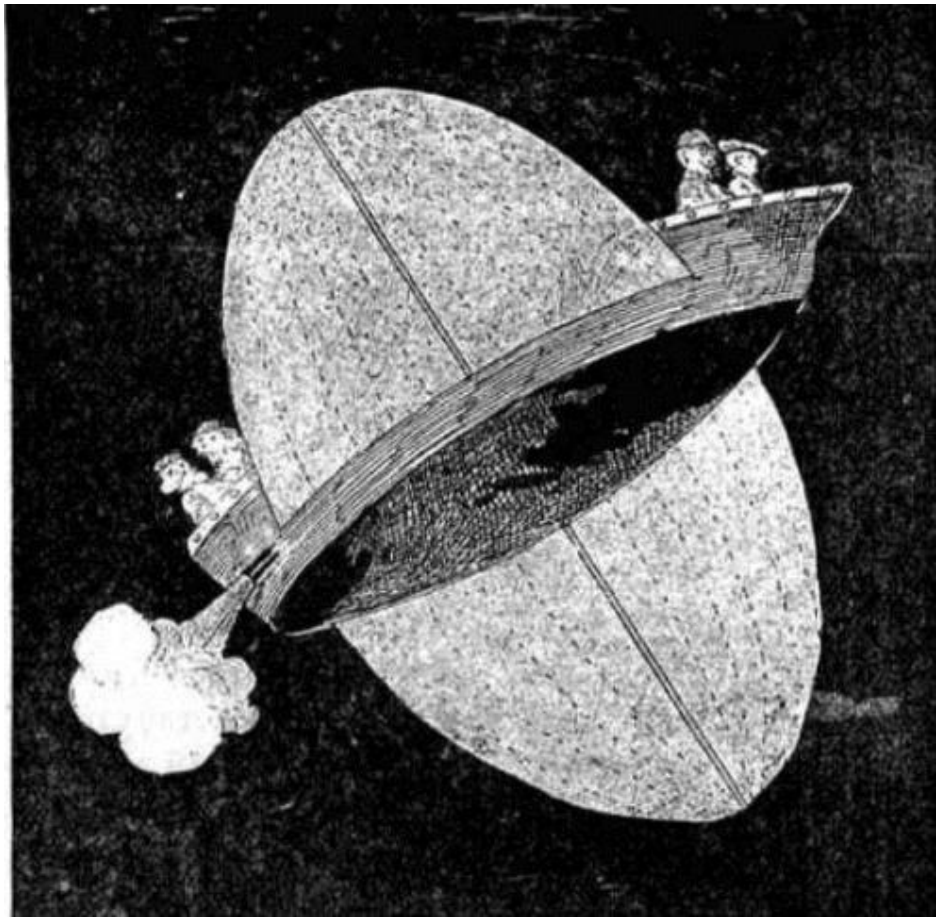
Shopping mall
Credit cards

SCIENCE FICTION

1895. Propeller Island by Jules Verne.

Steering system in the form of two propellers.

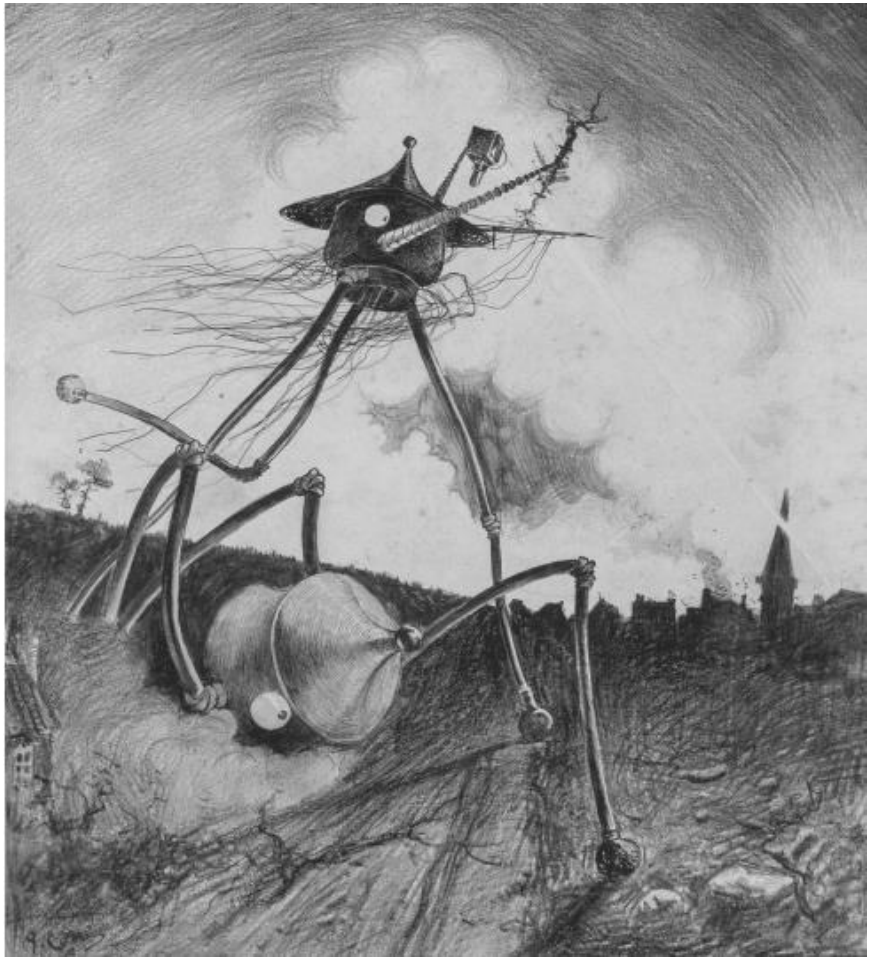
SCIENCE FICTION



1896. The Extraordinary Adventures of a Russian Scientist Across the Solar System by Georges Le Faure, Henri De Graffigny.

Light pressure as a propelling force.

SCIENCE FICTION



1898.
War of the Worlds by H.G. Wells.

Biological warfare.

SCIENCE FICTION

1908. Red Star by Alexander Bogdanov (Malinovsky).

Use of nuclear energy.

SCIENCE FICTION

1929. The Air Seller by Alexander Belyaev.

Ultra-dense air.

SCIENCE FICTION

1960.
Star River Proving Ground by Genrikh Altov.

Light acceleration.

SCIENCE FICTION

1966.
The Donkey and the Axiom by Genrikh Altov.

Laser beam-accelerated spacecraft.

SCIENCE FICTION

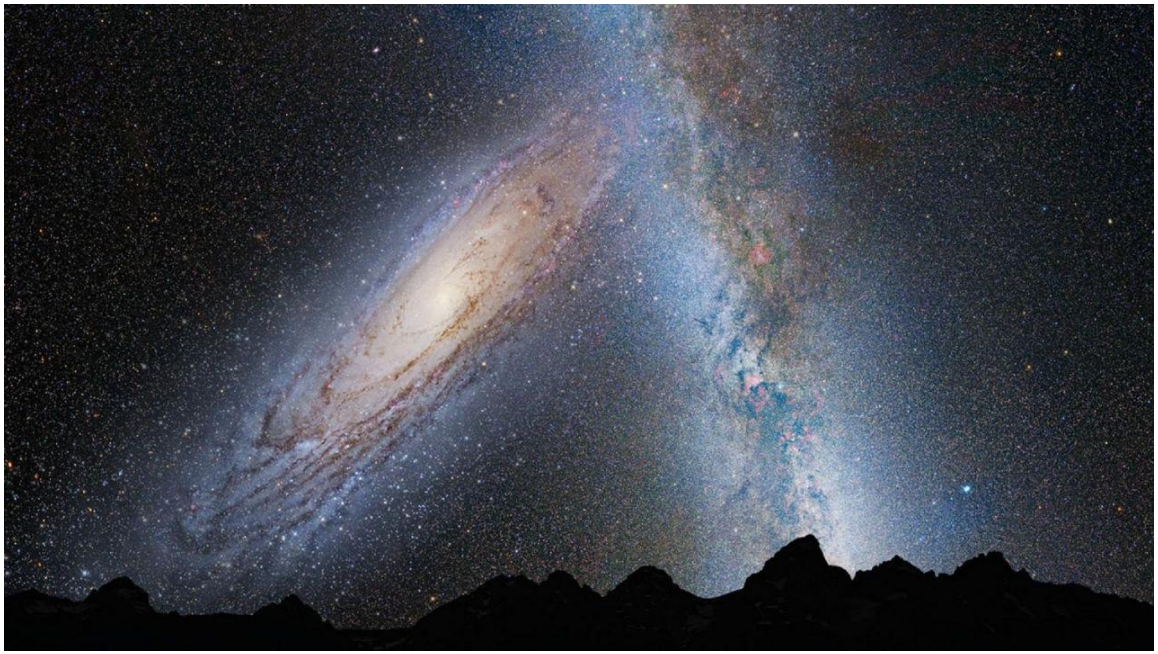
1968. Born for the Storm by Genrikh Altov.
Ship propelled by an artificial tsunami.

SCIENCE FICTION

1968. To Be a Princess by Genrikh Altov.

A gaseous disc around the Sun. made from the matter taken out of the gas giants' atmospheres.

SCIENCE FICTION



1968. All the Laws of the Universe by Pavel Amnuel.

A law of nature that describes changing the laws of nature.

SCIENCE FICTION

1978. The Distant Song of Arcturus by Pavel Amnuel.

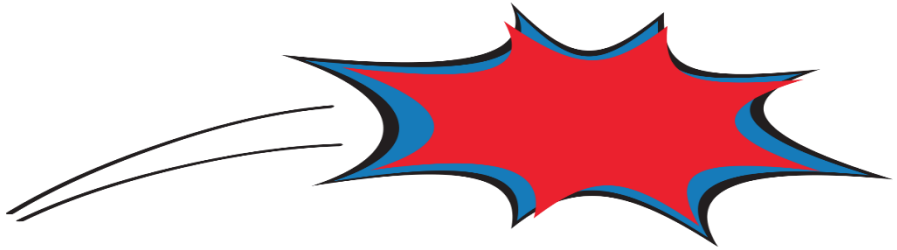
The Solar system as a spacecraft. A Dyson hemisphere with the Sun in the focus point.

SCIENCE FICTION

1999. Story of Your Life by Ted Chan.

A fundamentally new language devoid of the concept of time and causality.

SCIENCE FICTION



Fantasy-2 scale

Criterion: novelty

Level 1 (lowest): the idea hardly differs from the prototype.

Level 2: the idea significantly drifts from the prototype.

Level 3: the idea is fundamentally different from the prototype.

Level 4: the idea is original and without a prototype.

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Q&A

SESSION

RUSAL

Активация Windows

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THANK YOU!

Активация Windows