

- Hardware.Vocoder as a musical effect allows you to transfer the properties of one (modulating) signal to another signal, which is called the carrier. As a signal-modulator, a person's voice is used, and as a carrier - a signal formed by a musical synthesizer or other musical instrument. Their main disadvantages are the inconvenient tuning and low functionality

- Virtual.Today, this vocoders are more often used, implemented as VST plug-ins, as they are more flexible in customization. Similar vocoder solutions are used as standalone programs and in conjunction with the host program. As such, any virtual studio that supports VST technology can be used. Any person can use it just installing it on his PC or on-line.

3) Dram-machine:

- Hardware.Hardware drum machines consider the example of Lynn LM-One.It is equipped with impact pads-pickups, so that you can play it on a regular instrument. In this module, the sequencer is also included. Like most of them it can only play a limited choice of pre-set rhythms because of its limited customisation function.It can only be used alone and can not be a part of a single large audio station.

- Virtual.With the development of digital technology and programming, along with hardware drum machines and software appeared. A virtual drum machine can be an integral part of the studio software package. There are specialized synthesizer programs that synthesize the sound of drums or plates on the basis of samples with the subsequent use of mathematical modeling. In such programs, you can set many parameters, such as: the size of the drums or cymbals, the parameters of the virtual studio space, the types of virtual microphones used, their placement in the virtual space, and so on.

According to the research, it can be argued that the development of programming has seriously affected these musical instruments. The main advantages are mobility, availability, variability and the possibility of customization.

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SUPERCOMPUTERS

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This thesis paper describes the advantages of supercomputers and robots over people, how can possible developments change our daily life in the near future.

We can say with confidence that we cannot imagine our life without gadgets anymore. We used to capture moments in the gallery, our emotions can be transmitted through smiles and we can communicate even if we are 1000 kilometers apart. But are you not afraid of machines that can completely replace us and deprive us of our jobs?

Scientists are trying to make robots like a human, artificially grow organs thanks to embryos of robots carried by women.

There are at least 12 reasons to worry about:

- Mass production and self-reproduction;
- Ability to transfer knowledge and experience with instant training to another robot;
- Developed intelligence;
- Easier to upgrade;
- Absence of developing psychological inclinations;
- Decrease in demand for energy-intensive resources;
- Potential of moral superiority;
- Immune to damage burdensome biological functions;
- Technical Therapy;
- Dynamic structure;
- Perfect space travellers;
- Age-long life;

Scientists are trying to make robots like a human, artificially grow organs thanks to embryos of robots carried by women, even give them a workplace of director of the company.

Feelings

From touch

From the sense

From vision

From hearing

From taste

of smell					
Robots	+/-	-	+++	+++	-
Humans	+	+	+	+	+

Table №1 Comparative table of feelings of the robot and the person

As you can see from table 1 the robots have advantages in some senses unlike us, thereby emphasizing their importance and our uselessness. We must immediately do something not to be ousted from our posts.

References:

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CROSS-APPLICATION AUTHENTICATION

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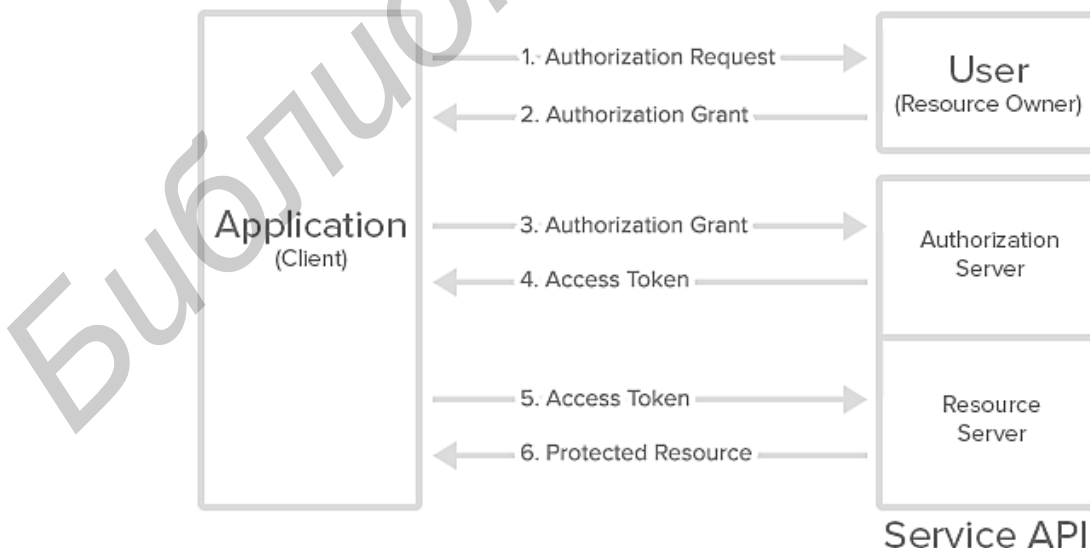
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The purpose of this paper is to provide you with the most important information about cross-application requests protocol based on authentication framework "oAuth 2.0".

Nowadays we use more and more different web-resources that save our data. Sometimes we have the necessity to get the data from one application and transfer it to another one. But how can we make it work? It should be easier to use this protocol without giving an identifier and a password to the third person. For a developer it should be a protected, low loaded and easy to set up tool. The answer to all these questions is "oAuth 2.0". This framework is very powerful and documented as RFC 6749.

Abstract Protocol Flow



1.2. Getting authorization grant (or just redirecting to resource server if it has api for it).

3.4. Swapping grant for token.

5.6. Getting necessary data from resource server.