

As a result, two existing used car dealerships were briefly reviewed, some of the main advantages of the current search tools were considered, as well as some of the main limitations faced by ordinary users of online car dealerships.

Summarizing the results of a small analysis of search results on the example of a car dealership, we can say that the existing search algorithms have flaws and need to be further explored to improve them and create alternative search approaches, which in turn can potentially help make the business more efficient.

### **References**

1. Auto RIA [Web resource] URL: <https://auto.ria.com/uk/> (Date of the application: 21.03.2022).
2. AutoScout24 [Web resource] URL: <https://www.autoscout24.com/> (Date of the application: 21.03.2022).

## **DISCOVERIES RELATED TO INFORMATION TECHNOLOGY**

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We all love to watch fantastic movies about the future, which show the power of new technologies. But few people know how far science has advanced in the modern world.

*DNA can be edited* Appeared an idea: 1987. A successful test was carried out: 2015. Everyone knows that DNA is a macromolecule that stores and transmits genetic information, programs for the development of living organisms. Under the influence of adverse influences, some parts of this molecule are destroyed. As a result, a person develops various genetic diseases. So, in the 2000s, scientists discovered a mechanism that allows a protein enzyme to be delivered to damaged areas of DNA. For this, RNA probes are launched into the body. They either delete the damaged fragment or restore it. The perspective of this discovery is difficult to overestimate. Scientists will be able

to reprogram the human code, removing from it information about chronic, hereditary diseases.

*Construction of the Large Hadron Collider* Origin of the idea: 1984 Construction completed: 2006 This is really one of the most extensive developments of scientists in the last 25 years. It is essentially an experimental setup that is huge in size. Its length is as much as 26.7 km! Collider is served by more than 10,000 people. This is an international project in which scientists from more than 100 countries participate. VAK is a charged particle accelerator built between Switzerland and France. Scientists use this installation to study the products of the collision of elementary particles. It made it possible to confirm at once several theories that form the basis of modern physics. Scientists believe that with the help of the collider they will be able to reveal the secrets of the origin of the universe.

*Reprogramming of stem cells* The beginning of the research: 1981. The discovery was made: 2006. Science learned about stem cells at the beginning of the last century. Serious research began to be conducted much later. In 2006, Japanese scientist Shinya Yamanaka made one of the most important discoveries. It turns out that any cells in our body can be turned into stem cells by reprogramming them. He added 4 genes to skin cells, turning them into stem cells. The fact is that stem cells are an amazing achievement of evolution. They can become any type of cells that the body lacks. For example, they can become erythrocytes or leukocytes, muscle or bone tissue. What is the uniqueness of this discovery? The fact is that 3-4 weeks after the transformation of skin cells into stem cells, they could be transformed into any other type of cells.

*An artificial heart that recharges through the skin* Start of development: 2001 Today, this technology is being improved, but the breakthrough made by scientists in the field of artificial cardiology is difficult to overestimate. In 2001, the first artificial heart that can work autonomously was created. Just imagine how many lives could be saved thanks to this discovery! Until now, a patient with a similar device in his body had to be connected to a power source through a system of wires and tubes brought out through the skin. The autonomous heart is called AbioCor. It has a built-in battery,

which is recharged through the skin from an external battery. Today, the service life of AbioCor is 18 months and this device is intended only for men (due to weight and height requirements). Scientists are now developing the next generation of artificial hearts. They are expected to function for up to 5 years and will be intended for both men and women. Today, AbioCor is worth \$25,000.

*Memory reprogramming* The experiment was successfully conducted: 2014. Scientists Xu Liu and Steve Ramirez conducted an experiment on laboratory mice. They were able to replace the rodents' negative memories with positive ones and vice versa. For this, light-sensitive proteins were implanted in the brains of mice. Negative memories were completely replaced by positive ones. They firmly penetrated the memory of mice. What is the importance of this discovery? Just think how many people in the world are unsuccessfully trying to cope with post-traumatic syndrome, cannot survive the grief of losing a loved one. Such reprogramming can restore the joy of life, help people survive terrible tragedies.

#### References

<https://www.techyv.com/article/top-10-greatest-information-technology-inventions/>

## **THE PROBLEM OF MAKING LOGS IN E-COMMERCE**

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E-commerce has become an integral part of modern-day business, with more and more consumers opting to shop online. As the number of online transactions increases, so does the volume of data generated by e-commerce applications. Logging is a crucial aspect of e-commerce application development as it enables developers to record critical information, which is used for debugging, performance analysis, and security auditing. However, logging can be a challenging process, and improper logging practices can lead to severe consequences, including data breaches, system crashes, and poor system performance. In this article, the problem of making logs in e-commerce applications will be considered and provide some solutions to address this issue.