Artificial Intelligence based computer network technology

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Abstract

As the product of the mutual infiltration of the various disciplines such as the control theory, information theory, system theory, computer science, physiology, psychology, mathematics, philosophy and so on, the research field of the theory and application of Artificial Intelligence technology covers almost all the areas of human activity. In recent years, the rapid development of computer network technology produces and drives a batch of new scientific research fields. Among them, the application of artificial intelligence in the computer network technology is a hot topic which is academically and technically strong and can bring obvious economic benefit.

1. Introduction

With the progress of science and technology, peoples demand for computer networks changes unceasingly, as shown in Figure 1. The simple function of the numerical calculation and problem solving has been unable to meet the requirements of the computer network technology [2]. The computer to provide more intelligent and personalized service is the new demand people put forward to the computer network technology under the environment of the rapid development of the computer and the network technology. The current problems that computer network technology has, especially in the safety aspects, also emphasize the necessity for the application of artificial intelligence in the computer network technology [1].

2. Introduction to the Artificial Intelligence

Artificial Intelligence is a word which was proposed in the Dartmouth society as early as 1956, as shown in Figure 2. It is a combination of psychology, linguistics, physiology, computer science, and other disciplines, and is the challenging comprehensive technology. Its purpose is to make machines obtain artificial intelligence, to complete complex tasks instead of human beings, and improve the work efficiency. Therefore, it is also known as the machine intelligence, and its English name is Artificial Intelligence, referred to as AI [3].
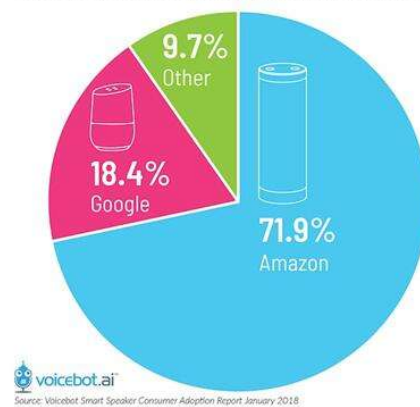

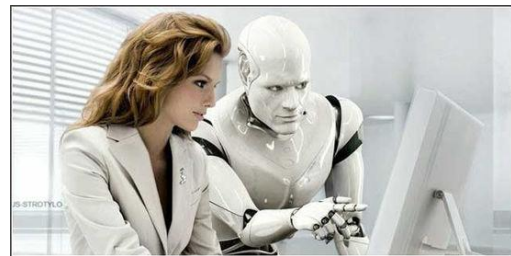Figure 1. Smart speaker market share installed base 2017.

Figure 2. Artificial Intelligence.

References

[1] R. E. Fikes and N. J. Nilsson. Strips: A new approach to the application of theorem proving to problem solving. *Artificial Intelligence*, pages 189–208, 1971. 1

[2] B. K. Horn and B. G. Schunck. Determining optical flow. *Artificial Intelligence*, pages 185–203, 1981. 1

[3] S. Kong, S. Punyasena, and C. Fowlkes. Spatially aware dictionary learning and coding for fossil pollen identification. In

IEEE Conference on Computer Vision and Pattern Recognition, pages 260–265, 2016. 1