

Informative speech on robotics essay sample

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BUSTER**

Permit me to start with a question. If your employer called a staff meeting, informing all workers that they can now work 3 days a week at half their normal work time per day only aspecting how much work is done while the salary remains the same, what would be your reaction? Would you angrily resign? Definitely not! Before we continue, if someone told us sometimes ago, that it could be possible for man to fly on air, we would have probably locked him up in a room and thrown the key away. But today it is more than possible. The same applies to robotics. Now let us review the concept of robotics. Background Information on Robotics:

1. Robotics is an area where a number of scientific fields meet, and this fact already is a source of attraction for the involved scientist, the engineer, the users and the public. Expectations run high and in diverse directions to include giving man a life-long holiday. If you don't need it, I do.

2. Robotics as a branch of mechanical, electrical and computer engineering deals with the design, construction, operation and application of robots, as well as computer systems for their control, sensory feedback and information processing. The technologies deal with automated machines that can take the place of humans in dangerous environments manufacturing processes, or resemble humans in appearance, behavior and / or cognition.

The concept of creating machines that can operate autonomously dates back to classical times, but research into the functionality and potential use of robots did not grow substantially until the 20th century, and since then, there has been an increasing attempt to make the man robot environment very safe for man.

3. The word 'Robotics' was derived from the word 'robot' which was introduced to the public by Karel Capek in his play, 'Rossum's Universal Robots', which was published in 1920. The word robot comes from the Slavic word 'Robota' which means 'Labour'. Robotics was first used by Isaac Asimov. He was unaware that he was coining a new word. He just assumed that robotics already referred to the science and technology of robots as electronics referred to the Science and Technology of electrical devices.

THE HUMAN-ROBOT INTERACTION

If robots are to work effectively in homes and other or non-industrial environments, the way they are instructed to perform their jobs and especially how they will be told to stop will be of critical importance. The people who interact with them may have or no training in robotics and so any interface will be needed to be extremely intuitive. In other words, human-robot interaction depends on the knowledge of human communications – speech, gestures and facial expressions.

The origin of human-robot interaction as a discrete problem was stated by Isaac Asimov in 1941, in his novel 'I, Robot'. He stated the three laws of Robotics as: 1. A robot may not injure a human being or, through inaction allow a human being to come to harm. 2. A robot must obey any orders given to it by human beings, except where such orders would conflict with the first law. 3. A robot must protect its own existence as long as such protection does not conflict with the first or second law.

These three laws of robotics determine the idea of safe interaction. Nowadays, since this problem has not been fully addressed,

manufactures who employ robots solve this problem by not allowing humans and robots share the same workspace at any time. However, with advances in Artificial Intelligence, the autonomous robots could eventually have more proactive behaviours, planning their motion in complex unknown environments. These new capabilities keep safety as the primary issue and efficiency as secondary. Relentless research is going on to make the system better. Winners never quite, quitters never win. Like Thomas Edison, the inventor of the light bulb, said when he was asked about the 1000 times failure, “ The invention of the light bulb is a process that has 1, 001 steps”.