The Use of an Assumption

One of the skills needed for critical thinking and research analysis is the ability to identify assumptions in an argument. In this essay I will be discussing use of an assumption in the operation of some aspect of a cognitive system. Firstly, we want to define assumption as an unsupported reason of an argument, something we take for granted, something that is based in our beliefs. Assumptions are also the unstated links between evidence and conclusion and in order for the conclusion to be true, the assumption needs to be true. For the purpose of this essay I will use machine intelligence system. Based on definition and the information about assumptions, I provided the following examples.

The first example is the assumption that speech recognition machine assumes that humans will continue to communicate by using language such as English. This is reasonable because of the fact that language is the way we have communicated for thousands of years.

The second example comes from the assumption that Google Search engine assumes that the computer that it’s running on has a power supply. This is reasonable because there are generators (emergency power systems) available in case there is no electrical power.

The third example is the assumption that self driven cars assume that GPS are working and the infrastructure (roads) is available. This is reasonable because we have satellite (GPS) systems and the infrastructure already available.

In summary, identification and examination of assumptions is very important for scientific research. The books and articles contain assumptions and one’s ability to critical thinking and ability to ‘read between the lines’ is essential for research and decision making. While analyzing an article we have to analyze and critically evaluate the argument so we can prove that our conclusion is based on proven evidence. However, assumptions are essential for an argument but we have to identify, evaluate and revise them to be sure they are valid. As researchers we need to be aware of our own underlying beliefs as well as underlying beliefs of the writers of articles we use as references in our research.