

## **Chapter Two**

### **Machine Translation: General Facts**

#### **2.1. Preliminaries**

Machine Translation is generally perceived as the application of computer and language science. Hutchins (1994:13) defines Machine Translation as “the computerized systems responsible for the production of translation with or without human assistance”. However, he distinguishes between computer-based translation tools which support translators such as dictionaries, remote terminologies, etc. and MT which is the automation of the full translation process.

Nirenburg (1987:2) defines the task of MT very simply by stating that “the computer must be able to obtain as input a text in one language SL and to produce as output a text in another language TL, so that the meaning of the TT (target text) is the same as that of the ST (source text). From Nirenburg’s definition, we can observe that MT definition is not very much different from (human) translation and therefore, this could pave the way to anticipate how difficult and complex the process is.

#### **2.2. Types of Machine Translation**

Machine Translation can be divided into two main systems: bilingual systems and multilingual systems. The former systems are designed for two particular languages. These systems could be uni-directional i.e. operate in one direction, for example, from Arabic into English, or they could be bi-directional in which they operate both ways. On the other hand, multilingual systems are designed for more than one pair of languages. These systems provide translations of one language to any one or more languages within the same system.