

## Chapter 7.8

# Neuro Linguistic Programming: Towards Better Understanding of Human Computer Interaction

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### ABSTRACT

*The power of computers is now beginning to be exploited in subjective areas of human study like those related to human psychology in order to make the interaction between humans and computers more natural. An effective interaction must involve automatic analysis of human behavior by the computer; and responding to it. Neuro-Linguistic Programming was developed, drawing its inspiration from the computer programs, so as to change the perception of the human brain to a more successful behavior. In addition to that, Neuro Linguistic Programming gave an algorithmic approach to 'observe' and analyze human behavior; both verbal and non-verbal, and serve to effectively perceive the human behavior and interaction. The interaction is a more deep rooted cognitive interaction. With the use of Neuro Linguistic Programming and the fundamentals of cybernetics, the humans and computer can be brought closer, with automatic transfer of valuable information between the two. This chapter describes the fundamentals of Neuro Linguistic Programming and aims at developing a hypothetical model on how Neuro Linguistic Programming can be used to better understand the interaction between the humans and the computers.*

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## INTRODUCTION

With the increased use of computers and computing system being assimilated into every human aspect, the cognitive interaction of computers and robots with the humans is a new research domain. Recent developments in field of Human-Computer Interaction and other cognitive sciences have enabled man to interact more naturally with the computer. However to further enhance the Human Computer Interaction, some new techniques need to be designed and incorporated. Not only verbal but also non-verbal behavior is a major factor in the efficient communication between the two.

One of the techniques that gained a lot of momentum in the recent years, especially in the field of communication, is the Neuro-Linguistic Programming abbreviated as NLP. It originated as a therapy and was earlier used in Psychotherapy (*A Dictionary of Psychology 2<sup>nd</sup> ed.*, 2006). An information scientist Richard Bandler and a linguist John Grinder, at Santa Cruz, created NLP in the early 1970's.

This technique evolved so as to duplicate and model highly successful behavior of three psychotherapists (Dilts R & Erickson R.K, 2006). Later on, apart from psychotherapy, it was implemented in fields of communication, management, sales, marketing, public relations, education and many others. NLP primarily aims at changing the "perception" of the real world through our 'maps of reality' created by the brain. It tends to change the state of the mind, the brain's 'programming' (analogous to a computer program, the source of inspiration for NLP) and the maps of reality so as to 'reprogram' the brain and consequently change one's behavior to a more useful and efficient one.

With the help of Neuro-Linguistic Programming and the advances made in computer sciences, the interaction and communication between Humans and the computers can further be developed, more efficiently and naturally.

Humans interact with each other generating meaningful information and communicating it to

others. To enter this information to a computing system or probably a robot, the system must extract it directly from observing the human interactions. The proposed work presents a model that uses NLP to analyze and perceive the human behavior effectively, thereby also enhancing effective human and computer interactions.

There certainly needs to be a shift from data processing to knowledge processing and this model may be considered as an integrated application of pervasive computing and A.I coupled with V.R concepts etc.

## OBJECTIVES

In this paper we try to develop a hypothetical model to study the use of Neuro-Linguistic Programming and computing system as an aid to cognizance and perception of human interactions. By successful modeling the interaction between humans and the computers, including robots can be made more natural. Understanding efficiently human behavior, need, feelings etc., with the use of Neuro-Linguistic Programming, by computers can lead us to new applications in cognitive science.

## BACKGROUND OF NLP: A FEW APPLICATIONS

**Neuro-Linguistic Programming** is a concept that evolved so as to study and duplicate highly successful human behavior, skills and competence and then modeling it. This model could then be further developed or enhanced such that a transferable model could be developed and learnt by the humans so as to improve their skills, creativity etc. or to cure patients with phobias. It is also being employed in a big way in Management Concepts like Sales and Marketing, Advertisements and Organizational behaviors etc. Education sector is another potential area for NLP to be applied, once the computer models are ready and implemented.

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