

b) Components and Levels of Representation

The process of language generation involves the following interweaved tasks. *Content selection*: Information should be selected and included in the set. Depending on how this information is parsed into representational units, parts of the units may have to be removed while some others may be added by default. *Textual Organization*: The information must be textually organized according to the grammar, it must be ordered both sequentially and in terms of linguistic relations like modifications. *Linguistic Resources*: To support the information's realization, linguistic resources must be chosen. In the end these resources will come down to choices of particular words, idioms, syntactic constructs etc. *Realization*: The selected and organized resources must be realized as an actual text or voice output.

c) Application or Speaker

This is only for maintaining the model of the situation. Here the speaker just initiates the process doesn't take part in the language generation. It stores the history, structures the content that is potentially relevant and deploys a representation of what it knows. All these forms the situation, while selecting subset of propositions that speaker has. The only requirement is the speaker must make sense of the situation [91].

3 NLP: Then and now

In the late 1940s the term NLP wasn't in existence, but the work regarding machine translation (MT) had started. In fact, Research in this period was not completely localized. Russian and English were the dominant languages for MT (Andreev, 1967) [4]. In fact, MT/NLP research almost died in 1966 according to the ALPAC report, which concluded that MT is going nowhere. But later, some MT production systems were providing output to their customers (Hutchins, 1986) [60]. By this time, work on the use of computers for literary and linguistic studies had also started. As early as 1960, signature work influenced by AI began, with the BASEBALL Q-A systems (Green et al., 1961) [51]. LUNAR (Woods, 1978) [152] and Winograd SHRDLU were natural successors of these systems, but they were seen as stepped-up sophistication, in terms of their linguistic and their task processing capabilities. There was a widespread belief that progress could only be made on the two sides, one is ARPA Speech Understanding Research (SUR) project (Lea, 1980) and other in some major system developments projects building database front ends. The front-end projects (Hendrix et al., 1978) [55] were intended to go beyond LUNAR in interfacing the large databases. In early 1980s computational grammar theory became a very active area of research linked with logics for meaning and knowledge's ability to deal with the user's beliefs and intentions and with functions like emphasis and themes.

By the end of the decade the powerful general purpose sentence processors like SRI's Core Language Engine (Alshawi, 1992) [2] and Discourse Representation Theory (Kamp and Reyle, 1993) [62] offered a means of tackling more extended discourse within the grammatico-logical framework. This period was one of the growing communities. Practical resources, grammars, and tools and parsers became available (for example: Alvey Natural Language Tools) (Briscoe et al., 1987) [18]. The (D)ARPA speech recognition and message understanding (information extraction) conferences were not only for the tasks they addressed