

A Case for Sanskrit as Computer Programming Language

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Abstract

This paper briefly enlists the features of Sanskrit language and suggests the use of the same for Natural Language Processing studies and applications. The potential predicted has to be verified by computer experts. Certain advantages of Sanskrit mentioned may find use in some of the frontier areas of Computer Engineering Research, notably in AI and Knowledge-based systems.

The view-point expressed here is that a Sanskrit-based Compiler or interpreter may have to be developed to unearth the hidden treasures in Sanskrit technical literature. Other countries in the West also, of late, have undertaken similar studies and it would only be appropriate if Sanskrit gets the type of recognition that it so richly deserves in its own land even in areas of advanced technological research, for which it is undoubtedly suited intrinsically.

Hardware and Software aspects involved in translating the suggestions contained here is for the Computer experts to consider while the Author would remain at the disposal of such interested researchers/organisations for further inputs and/or discussions/clarifications etc.

I. Introduction

Transaction Processing involves Receipt, Storage, Manipulation/Processing, Transfer and Retrieval of Information. Electronic Data Processing has a wide range of applications these days owing to the enormous strides the field has taken in recent years, both in terms of hardware & software developed and available to common man. Speed, flexibility, computing power, peripherals and interfaces have virtually extended the scope of computers to almost every facet of human endeavour.

Routine (mechanical) processing functions have given way to intelligent processing systems and high level languages are nearing natural language-like structure ceaselessly. Object-oriented programming languages are turning even symbolic programming languages obsolete. Programs tend towards expert systems. Such is the galloping progress of Computer Engineering (hardware & software) that, it is the time to think of an almost as-old-as-the-world language of the Orient, namely, Sanskrit, in all its majestic glory, to be considered as a candidate for computer programming, in the fields of Natural Language Processing & Artificial Intelligence.

Be it knowledge representation or speech synthesis, natural language processing or machine translation, intelligent tutoring systems or unambiguous semantic extraction, study of complex mathematical problems or linguistics, in virtually any field, one can think of utilising the richness, strength, accuracy, efficiency, structure, flexibility and the extant works available in the Sanskrit language.

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