

## Computational History and Forecasting about Sanskrit Family: An approach through Object Oriented Paradigm

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Language as a mode of communication is nothing but a pattern of syllables. Due to different influencing factors this pattern changes. The history of Sanskrit language has also shown a definite pattern of variation over time. This work wants to evaluate the inherent pattern within the time line of history of Sanskrit. Here a computational technique will be developed to discern this pattern. The same computational method will be used to forecast the future variations in the languages currently within the family of languages appeared from Sanskrit. The root of Sanskrit language can be traced back to *Indo-Hitait* family. Before the appearance of Indo-Aryan Sanskrit language this root traversed through old Indo-European language family, *Satam-Guccha* family and Indo-European family. The modern Indian languages like Bengali, Hindi etc appeared from the Indo-Aryan Sanskrit family. If we go through etymology of any modern Indian language a definite pattern of influence by external factors will be observed. If this definite pattern is considered then it will be easy to forecast the future variations of modern Indian languages which appeared as variations of Sanskrit. The above stated pattern can be explained through Object Oriented Paradigm. The variation of the mother language by the external factors in different phases can be explained through multiple inheritances. In this process of abstract relationship the newly born language can be treated as child class whereas the mother language as well as influencing factors can be treated as base classes. Each phase of variation is treated here as a single loop of iteration. So the process of newer iterations will continue as long as variation in the language is continued. Thus this work is unique in the sense that a computer programme is used to structure the variation of Sanskrit language and to forecast the future of Sanskrit family.

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