Chapter 6: Future Enhancements

The DBA / GDBA has a tremendous responsibility in maintaining, managing and administering the data. SOA based HDMT aids the DBA in such a task of migration of data for a distributed database environment. The services involved in the entire operation have been developed and deployed considering the various layers involved in the software system development and IT infrastructure for a generalized situation. More software services related to customization and authentication can be developed further for specific or customized situation and similarly, more layers can be added for adaptability to future needs or changes. The SOA approach will be beneficial in providing various DB administration services through software layers for more such software systems.

An article by Eifrem on ZDNet interested me. He mentions that companies are already past the point where a single database is capable of managing all data workloads — and it's misleading for any vendor to suggest it has the answer to all an enterprise's database problems. Overtime, the concept of data storage has evolved from flat file model to hierarchical and relational model and is evolving further into semi structured big database that is so large that it's difficult to process using traditional database and software techniques. It usually refers to information that doesn't reside in a traditional row-column database. These big databases also need big data analysis platforms and tools viz Hadoop, MapReduce, HPCC, GridGain etc. More such tools targeting general or specific situations can be developed in future as per the needs. "The Future of Hadoop and of Big Data DBMSs" by Rob Klopp mentions that the Hadoop eco-system builds all of the piece-parts of a very large database management system. There are the basics: a distributed file system in HDFS, a low-level query engine in Map/Reduce with an abstraction in Pig, and the beginnings of optimization, SQL, availability, backup & recovery, etc.

An article in The Economic Time, Education on "Accelerate private investments in India's education sector" dated 10 Oct, 2014, gives a good view of the Indian education sector. It mentions that the Indian education industry is growing at an average compound annual growth rate of 14 per cent and is expected to be $82 billion to $87 billion by the end of this year, up from $50 billion in 2011. Also, the amount of information with the education sector is large where the e resources are available either free or have to be subscribed. For the learning resources the nature of information is semi structured. Large amount of learning resources are shared online for the purpose of online viewing or downloading. Available tools facilitate this situation for the benefit of those involved in academic. More such tools for the maintaining and sharing of learning resources centrally, will help in the case of not only learning resources but also in the software to carry ahead the open source tools policy of the education sector.