A SEMIOTIC COMPARATIVE ANALYSIS OF OBJECT- ROLE MODELING (ORM) AND DYNAMIC ESSETIAL MODELING FOR ORGANIZATION (DEMO) IN MODELING DYNAMIC BEHAVIOUR OF INFORMATION SYSTEMS.

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Abstract

Almost all Systems tend to change their behaviour after a period of time and Information Systems have been seen to have this element at a wide range. A number of Scholars have come up with various theories and methodologies of how one can control and monitor this changing behaviour of Information Systems.

The concept of Modeling was introduced and a number of modeling languages have been developed. Despite the fact that all this has been put in place, Information Systems developers still find it hard to model and control the dynamicity of Information Systems. This fact raises a need for a better understanding of the Information System to be developed; if efficacy, efficiency and effectiveness are to be obtained. Apart from the internal changes of the System, it has been realized that the environment and the technology too greatly affect the behaviour of an Information System and hence its performance. This research puts all factors into consideration.

This research has looked at a semiotic comparative analysis study of *Object-Role Modeling (ORM)* and *Dynamic Essential Modeling for Organizations/Dynamic Engineering Methodology for Organizations (DEMO)* in modeling the dynamic behaviour of Information Systems. Our research reveals that the Information Systems designer needs, prior to developing the required Information System, to understand the *business processes*.

We use the *Dynamic Engineering Methodology for Organizations (DEMO)* to represent and capture the business processes which provide a clear understanding of the organization structures and organizational processes before the *Object-Role Modeling (ORM)* is used to model the required Information System. Through out this process of understanding the business processes, one can easily determine the dynamic behaviour of such a system.

If the business processes are properly modeled, the Information Systems Designer will always model a system that meets the requirements of the organization which can be adjusted at the right time and in the right way.

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