CHAPTER – 1

INTRODUCTION
a. e-Governance Evolution

In 1863, Abraham Lincoln gave his legendary Gettysburg address using the now famous phrase ‘A government of the people, by the people and for the people’ (Gettysburg speech). In other words a government that is constructed of people, and elected by the people, should represent the people. People or citizens then become the government’s priority. The early 1990s witnessed the movement ‘new public management’ (NPM) in the western world (Hughes, 2003; Saxena, 1996). NPM encompasses management practices that include service quality, performance management and risk management. The terms government and governance have been widely disputed. Saxena (2005) draws a key distinction between ‘government’ and ‘governance’. He identifies the government as an institution, whereas governance may be seen as a wider concept illustrating forms of governance that can be undertaken not only by government authority but by private firms, nongovernmental organization or associations of firms (Keohane & Nye, 2000).

Governments are specific institutions that donate to governance (Riley, 2003). In other words, it is suggested that governance focuses on the approach in which decisions are made, while government focuses on the approach in which these decisions are carried out This paper is thus intended to posit issues on e-governance and their contribution to excellence in services. The key issue within the context of services is service delivery, which is the process of making available the use of services for consumers, in an efficient and convenient manner. The government can provide value by providing service delivery which consists of the location timing and manner by which it is distributed (Bruhn & Georgi, 2006). At the service level, e-governance features include being open for business 24 hours a day, greater accessibility, lower costs and not having to visit government offices; it also aims to provide government information (Teicher et al., 2002).

Despite the tremendous efforts in e-governance, provision by the various governments of both the developing and developed countries have
envisaged problems of technological and of organizational nature (Heeks, 2003; Holliday, 2002; Pacific Council on International Policy, 2002; Strejeek & Theil, 2002; Wescott, 2001). The present study attempts to contribute to the emerging e-governance issues in the following ways: It undertakes an exploratory pilot study to provide a framework based on service orientation in order to highlight the e-governance problems faced in the Indian subcontinent. A matrix is proposed showing the different categories of service perception by the consumer. For example, the e-service provided by the government is rated as excellent, good, satisfactory or poor. This provides a valuable insight to the need for improvement of e-services. It also attempts to investigate and access e-governance service delivery, examine the level of services as perceived by citizens and to provide initial recommendations on the extent of delivery performed. To enable us to do this we have to first identify what is the gap between service delivery and reality.

b. Indian Perspective

It is suggested that while India does have an inspiring vision of where e-governance is going, there is a gap between service delivery and reality in that country. The challenge of e-governance in India lies in providing the service to about a billion people. At the moment, India is ranked 87th in the global e-government readiness ranking of 2005 (CIOL, 2006), which indicates significant room for improvement.

Research has indicated that the three Indian states leading in e-governance provision are Andhra Pradesh, Karnataka and Tamil Nadu, while the states of Kerala, Gujarat, Maharashtra, Madhya Pradesh, West Bengal and Rajasthan are not far behind (NASSCOM, 2003).

These Ten Indian States out of a total of 28, comprise over half the total Indian population. There has been a tremendous increase in the automated work flow within the notoriously bureaucratic Indian government departments, and e-governance seems to be a promising development. For instance, a recent auto bid evaluation for tenders has
helped reduce both subjectivity in decision-making and corruption. Corrupt practices have been reduced and on the whole there has been an attendant reduction in costs and inefficiencies (NASSCOM, 2003). While almost half of the country is catching up, rapid progress is being delayed due to operational, economic, personnel, planning and implementation issues. The main underlying reason for these problems has been identified as an over-emphasis on investing in hardware and too little emphasis on developing software and services (NASSCOM, 2003).

According to a study by NASSCOM, India’s National Association of Software and Services Companies, although there is rapid progress in e-governance implementation, there have been far too many problems in the operational, economic, personnel, planning and implementation stages. That study indicates that the Indian government should clearly define an e-governance strategy and formulate plans with measurable timelines, which currently do not exist (NASSCOM, 2004). Nevertheless, the foremost concerns of the government lie in addressing the appropriate connectivity between nations, stable power supply, and constant assistance to help the illiterate and lower strata of society (Menon, 2003). There has also been too much emphasis on starting new projects without the subsequent follow through in implementing and running the projects.

Anecdotal evidence by Ahmed (2004) indicates that there will be a continuation of funds into buying and installing IT hardware with no changes expected in the long term. He identifies another significant problem; the severe lack of in-house IT expertise to solve even minor problems. There is an acute shortage of staff across even the leading Indian states in the provision of e-governance. Problems also lie in the planning processes, and the type of technology platforms that are required to be utilized. Standardizing programs across the board is another prominent issue that crops up as different departments use different programs.
Thus, more time and resources are expended on the unnecessary duplication of databases in government departments (Ahmad, 2004). There is no paucity of suggestions in the literature as to why India needs an e-government or e-governance. There is a significant investment of resources being spent on e-governance projects. Often the rating of some of the e-governance projects is based on subjective assessments and value judgments of only a few sources and institutions (Rao, & Bhatnagar, 2004). Based on the problems that India faces for the moment and the amount of investment that is being directed to this area, it would be worthwhile to distinguish e-governance assessment with its service delivery. To do this, the next section will draw on an understanding of the importance of services and how technology plays a role in the public sector. It will then discuss the much talked about service dimensions and why it was necessary to use different measures to access service orientation.

Importance of implementing e-governance in educational sector

The application of Information Technology (IT) is fairly widespread by now in India in the private sector. However, when it comes to public governance, India has been a laggard in the utilization of IT. The common man has benefited from the e-governance measures implemented so far. Perhaps the best example in India of how e-governance can lead to order out of chaos and put paid to the machinations of the ungodly is the replacement of the old ballot system by electronic voting in elections. Despite these advantages, e-governance has not yet made much headway in government in India.

The slow start off the block, particularly of e-governance, is that it enables transparency and cuts down avenues of corruption. Implementing e-governance in any sector and that too relating to education sector will enable effective monitoring of academic standards. The amount of investment by the Government in the Information Technology is not enough and which is accounted only 15 per cent of India's $12 billion domestic IT market. Out of 30 "Mission Mode e-governance projects" totaling $6 billion in IT spends that were
drawn up by the centre back in 2006, only three have been awarded so far.

In this circumstance it is the time to analysis the importance of e-governance in educational sector. Today, there has been an increasing gap between what has been imparted to students’ curriculum and what has been really demanded. Both UG and PG level needs reforms with regard to curriculum, teaching, learning the evaluation so as to meet the every changing needs of the world. Keeping this in view, an attempt has been made in this write up to highlight the impact of e-governance also.

E-Governance in India has steadily evolved from computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency. Lessons from previous e-Governance initiatives have played an important role in shaping the progressive e-Governance strategy of the country. Due cognizance has been taken of the notion that to speed up e-Governance implementation across the various arms of Government at National, State, and Local levels, a programme approach needs to be adopted, guided by common vision and strategy. This approach has the potential of enabling huge savings in costs through sharing of core and support infrastructure, enabling interoperability through standards, and of presenting a seamless view of Government to citizens.
c. Why we should implement e-governance in educational sector?

The purpose of implementing e-governance is to enhance good governance. Good governance is generally characterized by participation, transparency and accountability. The recent advances in communication technologies and the Internet provide opportunities to transform the relationship between governments and citizens in a new way, thus contributing to the achievement of good governance goals.

The use of information technology can increase the broad involvement of citizens in the process of governance at all levels by providing the possibility of on-line discussion groups and by enhancing the rapid development and effectiveness of pressure groups. Advantages for the government involve that the government may provide better service in terms of time, making governance more efficient and more effective. In addition, the transaction costs can be lowered and government services become more accessible.

The fields of implementation of e-governance are:

* e-administration- refers to improving of government processes and of the internal workings of the public sector with new ICT (Information and communication technology) executed information processes.

* e-services- refers to improved delivery of public services to citizens. Some examples of interactive services are: requests for public documents, requests for legal documents and certificates, issuing permits and licenses.

* e-democracy- implies greater and more active citizen participation and involvement enabled by ICTs in the decision-making process
d. Impact of e-governance in education:

Two different point are considered to analyze how teachers will use IT in their teaching and Administration, to study the impact of e-governance in education.

1. Establishes a baseline for exploration:

It makes the point that, during the 1990s, the nation established the foundation for extensive use of technology in schools and Classrooms. Access in schools and libraries to computers and the Web is now widespread, on its way to becoming universal. Use of technology in the classroom, however, is more sporadic; few teachers use technology to offer educational experiences previously unavailable.

2. Looks into the future:

In particular, it considers whether information technology will simply support and amplify conventional classroom practice or whether it will have, in Brown's (2000) terminology, a "transformative" effect on the nature of the curriculum and pedagogy. It begins to explore how teachers will use technology in 2007 by imagining what the technology environment surrounding them will look like. The quality and power of technology will continue to increase to the point where it will be able to deliver practically anything that can now be imagined. Moreover, technological advances will make powerful computing tools available to almost everyone at affordable prices. Outside of schools, it can be expected that educational and training uses of information technology will be commonplace.

To better understand where the future of technology in education is headed, it is important to establish a baseline for changes by examining the advances over the last decade. This will leads to following advantages.
1. Student Access to and Use of Technology in Schools

Over the past decade, technology grants and donations from businesses, parents, and the government have led to the increasing presence of computers and the Internet in educational institutions. Currently, in our country, private schools with the financial support of the management and Government school with the help of new schemes for providing standardized education at par with International standards have computerized. This shows, at best, a crude measure of student access, however, because it includes schools that use computers solely for administrative purposes.

A more useful indicator is the percent of U.S. classrooms that have a computer designated for instructional use: In 1998, more than 75% of U.S. schools met this criterion (Education Week & the Milken Exchange, 1998).

The last decade has also seen a significant increase in student access to the Internet in school. In 1998, 95% of schools had at least one computer connected to the Internet (NCES, 2000). Once again, this measure is crude; thus, it is important also to examine the percent of instructional rooms within which there is access to the Internet.

2. Changes in curriculum, school organization and administration

Given that technologies appropriate role, is to support the achievement of main stream policy directions, and consider how well the school system itself is adjusting to change. One of the ways that the school system is beginning to address vocational need is to reshape the curriculum to provide a far broader mix of academic and vocational courses for all learners. This will involve greater cooperation between schools and the colleges of further and higher education, which have a specific remit to address essential skills shortages and to provide vocational education. There has also been a marked increase in the
number of students taking 'business studies' as an optional program of study at school and in the further education sector. Also understood is the notion that the development of an enterprise culture requires far greater attention to the place of creativity in learning, with a stronger recognition that this involves risk-taking and innovation.

3. Integrate e-governance in education sector

The studies in educational technology states that implementing e-governance in educational systems will enable effective monitoring of academic standards. The studies cite the example of M-Star1 education expert system which has overhauled the infrastructure in schools and colleges across India, making the learning system more accountable.

4. Education and Technology

The Right to Education Act gives little importance for implementing e-governance in our education system and the education sector has remained relatively untouched by e-governance before this Act. This is most distressing, considering that "education is the cornerstone of our efforts to build up the future generation".

As it stands today, our education system is chaotic, to say the least. It is characterized by a high dropout rate, teacher truancy, obsolete syllabi, inadequate infrastructure, unemployable graduates and the lot.

The tiny proportion of quality output that emerges from it is more a case of serendipity and the determination of the students belonging to this micro-minority.

This is because the present system lacks means of continuous monitoring, meaningful evaluation of the teacher and the taught, constant feedback to the players of education concerned like administrators, faculty, parents and students and appropriate timely control and correction mechanisms.

5. Improving education system:

If the quantity and quality of output from our education system have to be substantially improved, then there is no alternative to introducing e-
governance in this sphere. However, to be really effective, the e-governance system deployed will have to go beyond mere computerization of records or processes.

It has to be able to provide the management of the educational institution information about, Why of a happening or a trend besides the What, When and where, so that adequate prophylactic action can be taken. It should be able to provide answers to queries like:

* Why is the performance of a class dropping in a particular subject?
* Why is a particularly bright student lagging in performance in the last two terms?
* Which teacher has produced the best consistent results for her class?

Then again, considering the paucity of funds in our state-aided educational institutions, an e-governance system which is inexpensive to install, simple to use, easy to maintain and can be conveniently expanded will be much more acceptable.

6. Monitoring academic performance

One such e-governance system for educational institutions — the M-Star Education Expert System — has been piloted in scores of schools in India. This system currently runs in a variety of schools and colleges in the country.

The M-Star system and application runs on proprietary OmVcard or an Online Multi-domain Value Card, costing just a few hundred rupees. Every child and staff member is given the OmVcard which they can insert into any computer where the application is loaded.

Incidentally, the card can be used to check the oft-quoted issue of teacher truancy. Teacher performance in a 'single teacher' school can be monitored by his supervisor remotely, not merely by looking at his or her attendance records, but by gauging the effectiveness of teaching as borne out by the academic performance of the pupils.

Ultimately, if the Education Expert System gets linked to other national e-governance systems, such as the national ID project headed by Nandan Nilekani, then the possibilities are endless.
It could analyze the reasons of dropping out from the system and the teachers become more accountable. The Right to Education could thus become a reality through technology.
1.2 Rationale

India's education sector needs e-Governance dose

If the quantity and quality of output from our education system have to be improved, then there is no alternative to introducing e-Governance. The application of Information Technology (IT) is fairly widespread by now in India in the private sector. However, when it comes to public governance, India has been a laggard in the utilization of IT.

There are several reasons for this. One is the monopolistic nature of public governance. It is the customer, in this case the "aam aadmi", who has to like or lump whatever is offered by the public institution. He has no alternative.

A second important reason for the slow start off the block, particularly of e-Governance, is that it enables transparency and cuts down avenues of corruption.

The common man has benefited from the e-Governance measures implemented so far. Perhaps the best example in India of how e-Governance can lead to order out of chaos and put paid to the machinations of the ungodly is the replacement of the old ballot system by electronic voting in elections.

Despite these advantages, e-Governance has not yet made much headway in government in India. Government spending on IT accounts for only about 15 per cent of India's US $12 billion domestic IT market.

Out of 30 Mission Mode e-Governance projects totaling US $6 billion in IT spends that were drawn up by the centre back in 2006, only three have been awarded so far.

Education as a sector has remained relatively untouched by e-Governance. This is most distressing, considering that education is the cornerstone of our efforts to build up the future generation.
Even in the Right to Education Act there is little mention of implementing e-Governance in our education system.

As it stands today, our education system is chaotic, to say the least. It is characterized by a high dropout rate, teacher truancy, obsolete syllabi, inadequate infrastructure, unemployable graduates and the lot.

The tiny proportion of quality output that emerges from it is more a case of serendipity and the determination of the students belonging to this micro-minority.

This is because the present system lacks means of continuous monitoring, meaningful evaluation of the teacher and the taught, constant feedback to the players concerned (administrators, faculty, parents and students) and appropriate timely control and correction mechanisms.

If the quantity and quality of output from our education system have to be substantially improved, then there is no alternative to introducing e-Governance in this sphere.

However, to be really effective, the e-Governance system deployed will have to go beyond mere computerization of records or processes.

It has to be able to provide the management of the educational institution information about the ‘why’ of a happening or a trend besides the ‘what’, ‘when’ and ‘where’, so that adequate prophylactic action can be taken.

It should be able to provide answers to queries like: Why is the performance of a class dropping in a particular subject? Why is a particularly bright student lagging in performance in the last two terms? Which teacher has produced the best consistent results for her class?

Then again, considering the paucity of funds in our state-aided educational institutions, an e-Governance system which is inexpensive to install, simple to use, easy to maintain and can be conveniently expanded will be much more acceptable.
One such e-Governance system for educational institution—the M-Star Education Expert System—has been piloted in scores of schools in India. This system currently runs in a variety of schools and colleges in the country.

Solutions like these are highly flexible and can be adopted by any educational system and yet be customized to a very high degree to fit in with all the required parameters and diverse needs of an institution.

It is important that central and state education boards take the life cycle approach and works all the way up the education chain—from kindergarten right up to the university level—for all kinds of curriculum and structures.

Not to mention the fact that technology can also help bridges the gap between different stakeholders in a school, such as students, parents, teachers, and principal and education administrators.

For administrators like school boards and education directorates, which have to keep tabs on the functioning of many schools, ICT solution offers immense possibilities—from an ability to monitor academic performance of individual schools to evaluate the impact of schemes like mid-day meal or Sarva Shiksha Abhiyan.

Ultimately, if the Education Expert System gets linked to other national e-Governance systems, such as the unique identification number (UID) project, the possibilities are endless; it could analyze the reasons of dropping out from the system and the teachers become more accountable.

The Right to Education could thus become a reality through technology.