Modernized Approach for Enhancing a Education through E-Governance and ICT with E-Learning and Mobile Computing for Effective Deliveries

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Abstract: One of the most Emerging modes of communication in this digital era is E-Governance and E-Learning, which serves as a seamless mode to reach people day in and day out. It is an efficient tool where it provides a means to connect and interconnect people of diverse communities together. On one hand E-governance connects the government and its citizens round the clock on the other hand E-learning provides a platform where in the people of diverse community are tied up for a common interest, both can be thought as of as a asset that when enforced results in effective governance and education through digital tools available in the present era. These thought as of a racier two important facets of electronic transmission of information on two different ph mans treasure in these present treasure. Recently the technological revolution has made an huge impact on how the people are connected and how they share the information from one other when required. In this paper we take an effort to portray how the E-learning can be implemented using advanced E-governance and other communications.

Keywords: E-Governance, E-learning, ICT, Mobile Computing, GIS, M-governance.

I. INTRODUCTION

One of the major issues that most of the developing countries face is the management of the government and its operation, the government is seen the only organ that makes an effort to make the country function, in its very attempt often we find hurdles where a single large monolithic body is not been able to handle the country. Also never try to complete its duty as a government As these has been a great issue prevailing in the developing economy, serious attempt had been made by the wise persons, including government machineries and bureaucrats, also there had been the expected outcomes.

But these outcomes is not feasible, as a single government policy can never cater the need of the fellow country mans. Also constant effort has been showcased in different channel of communication to emphasize these Government Issue. Over the years there has been a rapid advancement in these particular domains using various connectivity channels, such as public vote, news paper, journals etc. Out recent years ago the concept of public involvement in the government operation has given birth to a completely new facet of viewing the government and its very local bodies. Using which now the government powers have been divided into various compartments such as state, local governments.

An “E-governance “involves the concept of performing the government operations using a set of computers with a communication protocol embedded in it, and provides a way where the people can share the information regarding various government bodies also to monitor their working, using so we can stay connected with the latest government updates and also keep track of ongoing government activities, there is a bright future ahead for this particular domain as it provides a

vicinity where the future advancements can be catered as the working of the government is expected to expand for the years coming ahead, and provides a great deal of effective and efficient performance with good reliability parameters, carried along with trusted performance.

As youth forms an integral part of any country, and plays a major role in the development of an economy. The backbone of every country is its youth, and the backbone of every youth is his skill. The skill contributes a major part of productivity, so it is essential that the youth to be skilled. The level of skill depends on the level of education, so education of youth is must for any economy .In this paper we make a serious attempt to use the technology and provide “e-learning” facility to youth. Through e-governance

II. E-GOVERNANCE

The “e” in e-Governance stands for ‘electronic’. Thus, e-Governance is associated with carrying out the functions and achieving the results of governance through the utilization of ICT (Information and Communications Technology). While Governance associates to guard the legal rights of all citizens, equality aspect is concerned with equitable access to public services and the benefits of economic growth. It ensures government to be transparent in its working, accountable for its incomes and expenses to be part of good governance ethics. E-Governance is the use of internet technology as a platform for exchanging information, providing services and transacting with citizens, businesses, and other arms of government. E-Governance provides a sound strategy to strengthen overall governance. It can not only improve accountability, transparency and efficiency of government process but also reduce the great deal of overhead of the existing manual and government process, also acts as a good mode for delivering Government services to exchange of information communication transactions.

E-government is organizing public management in order to increase efficiency, transparency, accessibility and responsiveness to citizens through the intensive and strategic use of information and communication technologies in the inner management of the public sector (intra and inter governmental relations) as well as in its daily relations with citizens and users of public services’-governance employs ICT Information and communications technology as a tool to achieve good governance. As it integrates people, processes, information, and technology in the service of achieving the aim of good governance. Indian government has been using IT for more than 40 years. So what’s new about e-governance? What’s new is that we are moving on from IT to ICTs and from IT to IS [7].

A. Advantages of Using Social Media in e-Governance

1. 24X7 operation. Delivery process in different Channels

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2. Entire government operation is divided and distributed into multiple working agencies that operates in different levels of Government
3. Online request and response for a service
4. One stop shop for latest burning issues.
5. on spot delivery of required information .
6. keep track of Location access point

B. Benefits of E-Governance

a. Fast, Convenient and Cost Effective Service Delivery
With the commencement of e-Service delivery, the government can provide information and services at fair costs, in reduced time and with great flexibility.

b. Transparency, Accountability and Reduced Corruption
Dissemination of information via internet increases transparency assures accountability and prevents corruption. A raise in use of computers and web based services improves the awareness levels of citizens about their rights and powers.

c. Increased Participation by People
With ease of access to the government services, as the faith of the citizens in the government improves and they can participate in government initiatives their participation makes the governing process simple and efficient.

d. Different Sectors Benefited by E-Governance
Via, E-Governance many local government bodies can come together and operate as whole, where the task to be performed is divided according to the implementation requirements. It provides employment opportunities to a wide set of human community. It acts a connector between government and various development organizations

e. E- Governance connects public to government
Time Table as a means the e-governance ,provides a platform where a person can track the government progress in any issue at any point of time ,this ensures that the people stay connected with the latest government moves regarding controversial issues.

Types of Government Interaction in e-governance.
G2G: Government to Government
G2C: Government to Citizen
G2B: Government to Business
G2E: Government to Employee

G2G: Government to Government: Government to government (G2G) is the electronic sharing of data information systems between different government agencies, organizations. The goal of G2G is to support e-government initiatives by improving communication, data access and data sharing, to ensure better communication and co-ordination between different distributed government agencies.

G2C: Government to Citizen is an e-government initiative designed to increase the interaction of citizens with the government. Examples of G2C initiatives like paying taxes online and applying for passports, visas, and other government benefits online. G2C initiatives increase citizen participation in the government by overcoming barriers of time and geographies.

G2B: Government to Business: G2B is the online transaction between the government and a company or an organization. G2B operations can include online procurement of products and services from public sector companies by the government. The Indian government has an online tendering website.

G2E: Government to Employee: The objective of G2E is agencies to be able to improve effectiveness and efficiency, eliminating delays in processing and improving employee satisfaction and retention. Internal efficiency and effectiveness, adopting commercial best practices in government operation in areas such as supply chain management, financial management and knowledge management.

E-learning: “the use of electronic technology to assist in the acquisition and development of knowledge and understanding in order to depict positive behaviors”

Learning is virtual class learning through the use of information and communications technology. It covers huge amount of activities from the use of technology to support learning as part of a daily activity, such that it encompasses a broad view and an efficient mode where the education is spread across the technology.

III. E-LEARNING BENEFITS

E-learning provides a platform where in any person can connect to a virtual class-room, from any part of the world and thereby gain knowledge of any domain with-out having to physically present over-there.

It gives opportunity to every individual to stay connected with his education and also work at the same time, even without having to pay for the education; it leads to an efficient educating path through the use of the current technologies, using the booming technologies such as ICT, mobile computing, and E-governance.

By making education available down the line any person can stay connected with his education even by not making a physical appearance ,which is an extremely effective way for encourage learning among those who are tied-up with their job, also for those who work to meet there ends.

It's cost effective and saves time: it reduces the time taken away from the office, curtailing travel costs and using the printed materials, online learning assists you to save money and increase workplace efficiency and productivity.

Round the clock learning: Many face to face courses only operate with usual working hours. By allowing people to connect at any time, even at any location makes it more efficient and effective where there are no time constraints on any course nor there are any space constraints.

Allows diverse people to stay connected with choose a like courses. E-learning is an effective tool for integrating people with diverse back ground together, as a means it is more effective where in a people willing to learn a particular course will instantly be enrolled with having to pay for the same, also can select any course from a wide range of course.

Efficient training tool:
Perhaps the most important aspect of using computers for training is that it will provide a well implementing effective Learning forum that makes it easy to track and improve progress for staff and working learners.

Contributes to economic development: The most eye-catching feature of E-learning is that the people may be skilled in more than 1 domain and can work in
different profiles, with this multi-domain knowledge the productivity of every individual increases.

Applications of E-learning

1. Giving the best Customer service training by through eLearning tool.
2. e-Learning assists in Sales training.
3. Efficient online Customer training.
4. e-Learning contributes for Safe training.
5. New product customer training
6. Utilizing e-Learning tools in Healthcare training
7. Effective end to end communication.

Implementing e-learning through e-governance:
Implementing e-learning through e-governance is an effective way of promoting education using digitized government as it provides an effective way to reach-out to the people the following communication tools with e-governance is an efficient way to implement E-learning:

IV. E-GOVERNANCE ROLE IN E-LEARNING

A. The progress tool ICT:

ICT [information and communications technology] is now a buzz word across the world that provides a way where the utilization of the current information and communication tool are being made to perform a wide range of operation through the mass communication media.

In its way ICT is an effective and a progressive tool that can connect people of diverse communities together for a common interest, hence the communication is being made through a wide set of communication tool that evolves radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications...

According to the European Commission, the importance of ICTs lies less in the technology itself than in its ability to create greater access to information and communication in underserved populations. Many countries around the world have established organizations for the promotion of ICTs, because it is feared that unless less technologically advanced areas have a chance to catch up, the increasing technological advances in developed nations will only serve to exacerbate "have" and "have not" areas.

B. Advantages of ICT

Ease of operation: With new technology, productivity should be increased as some activities will be speeded up.

Consistency and accuracy: Machines are capable of producing the same standard of product over and over again, which reduces human error and therefore reducing waste or errors.

Reduce implementation costs: Machines and technology can replace some human tasks, and over time this will make some employees redundant. This saves the business paying wages for labour.

Communications: Through new technology such as email and video-conferencing, communications will be improved within a business and also to external customers. Communication between branches or even between countries will be improved.

Down the line support: via ICT a person can be connected being physically absent from the venue, through ICT 1 can get connect to a hub of people with no time, it promotes an effective way of communication and data sharing among various users.

V. APPLICATIONS OF ICT IN EGOVERNANCE

Public distributed service as ICT connects people, the government operation gets more better and

Transparent operation
Efficient management
Productive performance
Data sharing

A. Geographical information systems (GIS)

A geographic information system (GIS) is a computer system for maintaining, capturing, storing, and displaying data related to positions on Earth's surface. GIS can show many kinds of data on one map.

B. GIS and e-governance

Government-to-business applications for economic development, land development, licensing, or permitting.

Government-to-citizen applications for online information on government services and to streamline interaction for accounting and feedback.

Government-to-government applications to improve the amount, quality, and speed of information exchange within and among various levels of government.

Better communication to enable governments and citizens for using resources more wisely. In addition, it also allows agencies to collaborate on large-scale planning problems and respond to emergencies.

It provides a platform where in the a person can track the government activities also can share a review on any emerging issue

VI. MOBILE COMPUTING WITH E-LEARNING

The recent watch word of most of the countries is the mobile computing."The process of computation on a mobile device, in mobile computing, a set of distributed computing systems or service provider servers participate, connect, and synchronies through mobile communication protocols".

Mobile computing as a general term describing ability to use the technology to wirelessly connect to and use centrally located information and/or application software through the application of small, portable, and wireless computing and communication device

A. Benefits of mobile computing

1- Increase performance - Mobile devices can be used out in the field of various companies, therefore reducing the time and cost for clients and themselves.

2- Connecting remote areas- Mobile devices can be used for entertainment purposes, for personal and even for presentations to people and clients.

3- Portability- this would be one of the main advantages of mobile computing, you are not restricted to one location in order for you to get jobs done or even access email on the go

4. Cloud Computing- This service is available for saving documents on a online server and being able to access them anytime.
Interactivity: the ability to share data and e-documents between diverse users. Context connectivity: to advantage to stay plugged with the technology at the forefront.

VII. TRANSITION FROM E-GOVERNMENT TO M-GOVERNMENT TO IMPLEMENT E-LEARNING.

M-governance is a subset of e-governance. It assures that electronic services are available to people via mobile technologies these services remove the need for traditional physical networks for communications and collaboration. Mobile services are also cheaper as well as accessible. Increasing the mobile phone accessibility, adaptability, governments are promoting and using the mobile phone in delivery the e-Governance services, governments have seen mobile phones can empower citizens and affect the way citizens interact with each other and with society at large. E-learning projects currently implemented.

Mobile phones are also considered to be an effective tool in connecting people in a democracy through better citizen-government interaction, thus influencing the political decision making process and making governments accountable.

A. Services offered by m-governance

Network/SMS based services SMS form the simplest of the services and can be used to provide information using Push / Pull based services. USSD Services Unstructured Supplementary Services Data (USSD) is a session based service unlike SMS which is store and forward service. It can be used by the user to send command to an application in text format. USSD acts as a trigger for the application. Bluetooth based services Bluetooth can be used for exchange of information among Bluetooth compatible devices in close proximity. It could also be used through a compatible handset to access application on another device. Examples of E-learning.

<table>
<thead>
<tr>
<th>Tool / Term</th>
<th>Description</th>
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<tbody>
<tr>
<td>Virtual learning environment (VLE)</td>
<td>An online space provided by the institution to support e-learning. All forms of digital media can be delivered using its various tools. There is a wide range of VLEs on the market.</td>
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<tr>
<td>Personal learning environment (PLE)</td>
<td>A concept of understanding that individuals utilise a range of networks – combining both institutional and personal networks and devices to learn.</td>
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<td>Blackboard</td>
<td>Example of a VLE that is commonly used in the UK.</td>
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<tr>
<td>Moodle</td>
<td>An Open Source VLE that is commonly used in the UK.</td>
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<tr>
<td>Podcast, either video or audio</td>
<td>A method of delivering multimedia content. The video podcasts are sometimes called vodcasts/vidcasts.</td>
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<tr>
<td>Face-to-face teaching</td>
<td>A method of delivering teaching and learning that is normally used to distinguish between the classroom teaching environments and online.</td>
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<td>Learning object</td>
<td>An object such as an audio file. Courses are typically made of many learning objects</td>
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<tr>
<td>Blended learning</td>
<td>A method of delivering teaching and learning that involves both face-to-face teaching and the use of technology together at the same time. For example the internet may be used to support a session that includes interactive tasks for the learner.</td>
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<tr>
<td>Distance learning</td>
<td>Delivering teaching and learning remotely, typically using technology and the internet Multimedia resource are often incorporated to provide context to text-based resources.</td>
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<td>Discussion forum</td>
<td>A communication tool for posting messages/work/comments/opinions. Often text-based but some do offer the ability to use multimedia.</td>
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<tr>
<td>Blog</td>
<td>A way of posting educational material online, normally organised by date and topic category. Images, video and audio can be shared in this manner. Blogs typically allow commenting, which can be a useful feature for teaching and learning.</td>
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<td>Web 2.0</td>
<td>An editable tool for working with others that has a trackable history of changes Much like a blog, its strength is that can be used to share multimedia resource.</td>
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<tr>
<td>Web service</td>
<td>Essentially leveraging some of the more recent developments to support better interaction including social features. Many of these web 2.0 services provide community tools for sharing and commenting on resources, such as video.</td>
</tr>
<tr>
<td>Netbook</td>
<td>A laptop that is very lightweight, portable and is often cheaper than most laptops. In order to achieve this, typically size and power are sacrificed. They can be used to create, use, manage and deliver multimedia.</td>
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<tr>
<td>book reader</td>
<td>Used to read digital e-books. Many of these readers can play audio books and/or read text out loud.</td>
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<tr>
<td>Flash player</td>
<td>A plug-in piece of software that adds functionality to the browser. Many e-learning resources have been created using Flash and most web videos at present use this technology.</td>
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<tr>
<td>Mobile learning</td>
<td>Using mobile devices including mobile phones to facilitate teaching and learning.</td>
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</table>

**CONCLUSION**

In past decades a number of efforts made to implement the concept of “E-learning” via advanced technologies, but some way its went on good. Now “E-governance” can aid the process of implementing E-learning via mobile computing with its broad and digital reach to the people that could make a better result in forthcoming years. if proper interest is given in this field of E-learning we can witness an educational transformations appear in the coming decades. Furthermore we also find that E-governance can aid these initiatives in an more effective and efficient way as it has a better connectivity to reach out a large number of people and appeal to them as a whole. Giving more priority to education have always fetched a good transformation to the quality of thinking and higher standard of living.so giving more priority to education via advanced communication includes intervention of ICT and Mobile computing for e-learning which regularized by e-governance could makes a better result in leaning field.

**References**


