# Library as a Hub for E-governance: A Proposal for Public Libraries in Kerala

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ABSTRACT: E-governance in India has played a crucial role in bridging the digital divide in the country. Among the southern states, Kerala has achieved a remarkable success with e-governance projects. Akshaya project of the Government of Kerala illustrates the benefits that a society receives through e-governance. Akshaya has an instrumental role behind the success story of e-governance in the State. The paper discusses potential e-governance projects in Kerala and the possibilities of e-governance mediated through libraries as an innovative service for libraries.

Keywords: E-governance, Libraries, Digital Divide, Akshaya, M-governance, Kerala

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# 1. Introduction

Digital divide is widely debated in developing countries. It is created as a result of the indiscriminate use of Information Communication Technology (ICT) in all walks of human life. It is a gap which divides people and nations by 'information rich' and 'information poor'. The gap is generated due to technological, economical, social, political, educational and cultural factors. Even though the factors contributing to digital divide varies among nations, government can play a major role to bridge the divide in an effective manner as government can bring people to a common platform irrespective of any disparities. It is interesting to note that digital divide and e-governance are complementary social phenomena<sup>1</sup>. E-governance bridges the gap mainly by promoting ICT skills and digital literacy in an indiscriminate manner. E-governance projects run with proper technical assistance can help in developing e-learning and suitable ICT contents. Governments can provide affordable broadband access to all, incorporating mobile communication for e-services by ensuring increased transparency in e-services<sup>2</sup>. This paper discusses major e-governance initiatives in Kerala and the role of libraries to bridge the digital divide in the state.

## 2. E-governance in Kerala

The strategic objective of e-governance is to support and simplify governance for government, citizens and businesses using ICT. The use of ICT can connect the three parties and support processes and activities. Other objectives are to make government administration more transparent, speedy and accountable, while addressing the society's needs and expectations through efficient public services and effective interaction between the people, businesses and government. E-governance is supposed to reduce government expenditure and wastage of public funds. It ensures corruption free governance while improving productivity of government employees. The power of ICT has permitted governments to adopt a holistic approach by connecting various departments and organs of government as never before<sup>3</sup>. E-governance has become an integral part of Indian democracy. Several Indian states are in the fore front with successful e-governance projects.<sup>4</sup> Kerala has made huge strides in the field of e-governance with proactive policies. State's e-governance policies envisage speed and transparency in governance and strive for improvement in the quality of life for the common man. The vision of the state is to utilise ICT for effective and transparent governance through an integrated e-governance framework. The government aims and endeavors to make the state of Kerala as '100 per cent e-literate and digital' to achieve the highest level of maturity in e-governance which is made possible by fully integrated services of various government departments by adopting open standards for e-governance solutions, aligned to the National e-Governance Plan (NeGP). NeGP provides a well defined and integrated framework for e-governance in India<sup>5</sup>.

The Kerala State Information Technology Mission (KSITM) under the Department of Information Technology is entrusted with the responsibility of implementing various IT initiatives in the State. KSWAN<sup>6</sup> (Kerala State Wide Area Network) is being setup as a backbone of the State Information Infrastructure (SII) connecting Thiruvananthapuram, Kochi and Kozhikode. KSWAN has become the core common network infrastructure for e-governance and connects more than 3100 offices in the state. Information Kerala Mission (IKM), the apex agency for local level e-governance has implemented several programmes with the ultimate aim of serving citizens in speedy and transparent manner. The e-governance applications in Panchayats and Municipalities provides various services like birth, marriage and death registration, plan scheme monitoring, property tax e-payment, social security pensions, double entry accounting, building permits and public works estimation. One of the best examples of the role of e-governance in bridging the digital divide in Kerala is envisaged by the Akshaya project launched as an e-literacy programme.

## 3. Akshaya

Akshaya project involved setting up of thousands of Multi-purpose Community Technology Centers called Akshaya e-Kendras across Kerala. It is a social and economic project focusing on various facts of information and communication, e-learning, e-transactions and e-governance<sup>7</sup>. It is one of the early community based ICT initiatives by Kerala IT Mission. Akshaya project officially launched in 2002, by setting up more than 600 sites in Malappuram district of Kerala, with the goal that one person in every family to be computer literate in the district. After the first phase, Malappuram became the first e-literate district in India. Akshaya was started with creating Akshaya Centre Entrepreneurs (ACEs) in each Panchayats. ACEs deliver services through which the population of the respective area benefits. ACEs try to impart knowledge and try to educate the population. The entrepreneur is the key to the success of the project. The initial phase of the Akshaya was the 'E-literacy phase'. This phase familiarised people with the basics and the scope of IT and also ensured hands-on-skill in operating a computer, using internet, etc. It is the largest e-literacy training project worldwide. The second phase is the service delivery phase, offering a variety of services like e-learning, e-commerce, advanced IT training, e-governance, communications and specific community based services. Akshaya centers are able to influence a wide range of development issues such as business and education development to the extent to which information and communication is important to individual users. Since control is within the government, Akshaya gets the credibility of a government organisation while at the delivery level there is a corporate approach of welcoming every citizen with the friendly face.

Generally Akshaya centers provide various services, courses and projects. The services include e-payment, e-filing, e-ticketing, Internet services, Janamythri police station, rural e-banking, industrial web portals, and data entry works. The courses included Intel learn programme, Learn and Speak English, Medical Transcription, E-Vidya, IGNOU Courses, DOEACC programme, C-DIT, Arabic Typing Tutor, Insight and Keltron Computer Courses. The projects are E-Krishi, Malayalam Computing, Ente Gramam and SPARK. Recently Akshaya is providing new projects like online application of ration card, registration of BPL families under Health Insurance, E-District, Unique Identification Number (UID)/ Aadhaar, E-Consignment, Collection of subscription amount of NRK Welfare Fund, E-Grants, etc. The latest reports shows that new services like Kiosk banking, FREES, Registration of APL/BPL families under RSBV, E-filing for Commercial Tax department, Motor Vehicle Department services were also initiated.

Akshaya project is a catalyst in creating massive economic growth and creation of direct and indirect employment in the state by focusing on e-learning, e-transactions, e-governance, etc. Various inclusive developments like women participation and empowerment is possible through Akshaya, by bringing to the fore the enormous managerial and entrepreneurial talent of women. Akshaya allows the rural people to improve their quality of life by accessing the information and services like literacy, e-governance, education; health and can provide a solid foundation for the economic prosperity of rural villages. Akshaya e-literacy centres have transformed themselves into effective Common Service Centres (CSCs) that help the public to avail a multitude of Government to Citizen (G2C), Government to Business (G2B) as well as Government to Government (G2G) services under one roof. At present close to 2,300 Akshaya e-centres spread across Kerala have been set up with every Panchayat having at least 2 centres. Recently, Akshaya centres have forayed into banking and insurance sectors. Akshaya is in the forefront of e-banking with Kiosk banking and Micro ATMs in 1000 Akshaya centres.

#### 4. M- Governance

The project was initiated by Kerala State Government to provide citizen services via mobile phones. It is perhaps the first comprehensive project of its kind undertaken by any state in the country. It has been adopted by many states and admired by World Bank. The state IT policy, 2012<sup>8</sup> ensures wider promotion of mobile governance across government service. It is expected that ICT projects can bring in economic returns even to the Government and can generate surplus by way of revenue sharing agreement with the mobile operators. An integrated Service Delivery Platform is being created and integrated with the e-governance infrastructure, for enabling m-Services of various Departments in a "Plug and Play" fashion. The m-Governance Service Delivery Platform (SDP) includes a unique branded, easy to remember Unique Short-Code 537252 - K E R A L A, which is the single touch point for availing many m-services of 90 State Government Departments and the pilot services include complaint registration for Kerala Women's Commission, SMS alerts of Kerala PSC, Kerala Water Authority, results for SSLC, Medical Engineering Entrance Examinations, etc. The Common Mobile Service Delivery Platform can be leveraged by departments for m-powering their services which include setting up of services for SMS, MMS, USSD, Voice and IVR platform. The focus is to build a centralized platform into which the services/solutions for each and every Department can be integrated. The Mobile Service Delivery Platform has been incorporated with the KISSAN KERALA project for providing push and pull based SMS services. Out Bound Dialer integration also has been done for providing voice based services to farmers in regional language.

#### 5. E- District

With the launch of e-District public portal (edistrict.kerala.gov.in)<sup>9</sup>, a host of government services like possession/income/caste certificates, public grievances, payment of government utility bills, University fees and submission of applications and payments under Right to Information Act, could be done not only through Akshaya CSCs but also over Internet from anywhere, using Internet banking, credit card or debit card of 70 banks. There are 503 services that are under the e-District portal which cover services of more than 10 departments. Through the portal, Kerala has already done 55 lakh transactions and the project is implemented in all districts of Kerala by March 2013. The e-District portal is also the first citizen portal in the country where citizens can register using Aadhaar number for identity and get governmental services online.

#### 6. Citizen Call Centre (Ccc)

It is a single window IT enabled facility, with 30 seater capacity, using the number 155300, which acts as an intermediate between citizens and Government to interact effectively through telephone. CCC offers helpline services for more than 50 departments to its citizens. In addition to general enquiry CCC accepts check post complaints, Akshaya, State Consumer helpline, Kerala Women's helpline and Aadhaar (UID) related queries. It has been planned to enhance the service including e-mail, web portals, social media, online chat, SMS, MMS, FAX, etc. along with conventional voice enhanced VoIP technologies.

# 7. Investment and Promotion Management Cell (IPMC)

Kerala is a leading destination for investments in IT sector and also hosts two of the most awarded technology incubation centres in the country. The Technopark T-BIC is operational since 2002 and the startup village is the first PPP model incubation centre in the country. To further augment and nurture the spirit of entrepreneurship, Kerala government has setup the investment promotion council headed by the Director, KSITM. The role of the cell is to register and administer incentives for IT units whereby financial as well as other incentives are provided for encouraging startups.

#### 8. E-Procurement

Government of Kerala has implemented the e-Government Procurement system to enhance transparency and efficiency in public procurement activities and monitor the same on a real-time basis. The e-Procurement system not only has the latest online payment mechanism of EMD and Tender Document fee but also has the facility of instant automatic refunds of the same amount, once the bid process ends. Till Nov 2013, 11,921 tenders worth Rs. 6,085 crores were already processed under e-tenders. There are 30 departments and 57 PSUs that use e-tenders. Number of departments officially registered are 1,436 and number of bidders registered are 5,338.

#### 9. Aadhaar

UID enrolment in Kerala has been completed through Akshaya centres and Keltron under Kerala State IT Mission. There are about 1,000 enrolment stations and enrolling machines (for both Akshaya and Keltron) spread over Kerala. Aadhaar enrollment was completed for about 97 per cent of the population and UID number has been generated for more than 295 lakh citizens (about 90 per cent of population). Enrolment of 6100 bedridden people's was carried out at their homes. All the 14 districts of the state are covered under the national program of Direct Benefit Transfer Scheme. Aadhaar authentication has started using AUA through ASA and Aadhaar verification is done using the SRDH as well. The e-PDS scheme for modernizing of public distribution system is also in the pre-pilot stage where the Aadhaar linked distribution is being tested.

#### 10. Service & Payroll Administrative Repository for Kerala (Spark)

SPARK is a government administration system to bring the payroll and finance related activities of Kerala state employees within a single application. Preparation of salary bills, maintenance of service book, data transfer between government departments, treasuries and Accountant Generals Office are facilitated through this service. Digitized service book of the employees is captured to the system and are assigned with a Permanent Employee Number (PEN). Today, all the Government staff is paid salaries and emoluments only through SPARK application.

#### 11. State Data Centre

State Data Centre provides the e-Infrastructure backbone for various e-governance initiatives for the Kerala Government. Kerala has two SDCs with state-of-the-art technology with 1 Gbps NKN connectivity and houses multiple software applications. The State Data Centres act as a mediator between public domain and government environment. They enable different state departments to host their services or applications on a common infrastructure leading to integration, efficiency in management, ensures computing resources and support connectivity infrastructure. The state data centre is expected to be a central repository of database of the state, ensure secure data storage, and provide online delivery of services through service portals.

## 12. Friends

It is a single window 'no queue' integrated remittance centre established in each district where the citizens have the opportunity to pay all taxes and other dues to the Government all under one roof at no extra cost. Friends accepts payment of various state universities, local bodies, Kerala State Electricity Board, Kerala Water Authority, Revenue, Civil Supplies, and Motor Vehicles Department. Started on 2000, the project has achieved ISO 9001-2000 certification. FREES (FRIENDS Re-engineered and Enterprise Enabled Software) is the centralized web enabled system developed by National Informatics Centre that help citizens to pay utility bills at FRIENDS centers.

#### 13. Kerala Spatial Data Infrastructure (KSDI)

KSDI is an internet based Geo Spatial Data Directory for the State that allows the users of the system to share and explore the information related to political and administrative boundaries, state geography, demography, agro and socio economy, resources, infrastructure facilities with attributes. This helps to bring together geospatial knowledge in a common platform and act as a gateway, provide spatial data dictionary and map directory for the state. KSDI facilitate decision support system and help in local level planning in the state.

#### 14. Motor Vehicles Department

"SMART MOVE" application has been rolled out which automated the following activities: vehicle number registration facility, allotment of number to vehicles, issue of permits, tax calculation including arrears and computing & display of accurate amount of fees to be collected for every service, ensuring no shortage occurs in the funds collected, due to ambiguity or lack of knowledge of the appropriate fee.

# 15. Commercial Taxes Department

Kerala Commercial Taxes is the first such department in India to have implemented 100 per cent e-filing of taxes completely online through KVATIS application. The project was implemented in the year 2009 and e-filing is done free of cost through Akshaya centers.

#### 16. Information and Data Exchange Advanced System (IDEAS)

IDEAS is a web based file tracking system developed by National Informatics Centre supported by KSITM is an Open Source Software, implemented in all departments of the secretariat. Each file in the Secretariat system can be tracked online by the common citizens through the IDEAS software including the Government Orders, Circulars and Laws. IDEAS represent an advanced Information Support system that facilitates more efficient and transparent administration. The citizens would be able to track their file from anywhere in the world through Internet and SMS. The system is designed in such a way that the petitioners get e-mail and SMS according to the movement of the file to different sections and officers. Officers can use the web interfaces to record or query of information of the petitioners, tapals or files with in their offices using Internet or KSWAN.

# 17. Library as a Hub for E-governance

Government agencies are moving online to provide services directly to the public, resulting in new opportunities as well as challenges to libraries. Libraries have a pivotal role to provide public access to information. They are vital for supporting transparent and accountable governance in digital era. American Library Association (ALA) has been made remarkable contribution to link public libraries with e-government initiatives in U.S. In many developed countries e-governance services are rendered through public libraries.

E-governance is successfully implemented in many states of India. It is clear from the above discussion that Kerala is in the fore front of e-governance mediated through Akshaya Centres. People mainly depend on Akshaya Centres for accessing e-government services in Kerala. Such services can be provided to the public through libraries with the available facilities. It is desirable to make use of this opportunity for delivering public services and there by converting our libraries more reachable to the public. Experiences from the western world prove that libraries have obtained greater visibility among the public through these services. Discussions and experiments of e-governance are confined to public libraries so far. However academic and special libraries can also act as hubs for e-governance within their purview. It is expected that network framework for public libraries in Kerala will incorporate e-governance services through public libraries in near future.

Libraries in Kerala have trained manpower, and experience with online information resources, Information literacy programmes and digitization projects for the past two decades. The requirements are willingness for participation and making policy decisions to collaborate with e-governance programmes of the government. The libraries need to convenience the government authorities to share the task of educating the people through IT literacy programmes and e-governance services mediated through libraries. The initiatives can be taken at library level as a trial by rendering essential e-governance services as part of information service to the members of the library. An academic library can concentrate on the teachers, students and staff of the institution. The services may include tax filing, e-grants, etc. A user survey can be conducted to determine the priorities and to know demands of the users. Experiments with the essential e- governance services will be helpful for planning full fledged e-governance services in future. Libraries are facing competition from other information agencies as a result the very survival of libraries is questionable. So it is high time to identify the thrust areas associated with e-governance to play the role of stakeholders in the information economy.

#### 18. Conclusion

E-Governance offers many benefits and advantages for the government, corporate sector and society. It facilitates better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through

access to information, or more efficient government management. It simplifies internal operations and improves performance of government departments while helping all sections of society to avail government services at lower cost with maximum ease of use. By employing online transactions, government processes become more streamlined, efficient and less dependent on human interaction. Interconnecting various ministries and government departments electronically to share information helps them provide better governance. Through one integrated e-Government portal, citizens and businesses can avail of various government services, conduct online transactions, access information and interact with various government bodies without standing in long queues, waiting for office hours or handling lot of paperwork, and thus save time and money. The success of e-governance rests on how people approach Information Communication Technology. Digital divide is the great barrier that the government has to overcome. The role of libraries to bridge the digital divide needs to be recognized. Participation in e-governance ventures of the government, as a facilitator libraries can do wonders to popularize the e-governance programmes to a great success and there by emphasizing the role of libraries in transforming the society.

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