

A report on

**Effective Implementation of e-governance in
Kathmandu Metropolitan City**

presented as a part of
Daayitwa Summer Fellowship

by
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1. Introduction

This report is presented as a part of Daayitwa Summer Fellowship. The fellowship focused on research and analysis of e-governance master plan of Kathmandu

Metropolitan City focusing on implementation of open data initiatives for effective e-governance. The report analyses strength and weakness in the proposed e-governance plan of Kathmandu metropolitan city and enlists overhaul of open data initiatives and related policies.

2. Acknowledgement

During my research at Kathmandu University, I studied about open data and how government of various countries have made public data available easily on web promoting use and application of the data. It was very sad to figure out that government of Nepal hasn't yet initiated open data initiative work although at the policy level it is proposed so. When I was looking for public data from past, I was suggested to visit the office and make a request for the same while it should have been made publicly available. This made me ponder where exactly government of Nepal stands in implementing open data initiative. I called a friend who works at National Information and Technology Center, Singhadurbar and enquired about government initiatives. I was glad to know that government has a very good long term e-governance plan which also comprises of open data initiatives. After going through the entire policy document, I found out a very strong proposal if implemented could take e-governance of country to next level. Sadly, hardly any step towards implementation was forthcoming.

On the other hand a very good private initiative opennepal.net exists. They collect data voluntarily which are available on internet and collaborate with various NGO and INGOs for data. The platform presents various data presented in beautiful form and can be used by anybody freely for research, development of application or similar use. All the data are under creative commons license.

The private initiative is something which government should have taken long back. At this point I had already dived into policies of government related to information, technology and communication keeping my focus in open data initiatives. And few days later a massive earthquake hit Nepal...

3. Earthquake and the e-governance

On the second day of earthquake, I along with few other neighbours, were sitting under a trap. Our mobile phones and laptops were dead and there was no electricity. A small radio was with us. Everybody were silently listening to the news on radio. A sudden thought struck my mind. Being a computer engineer, one who thinks of

changing the world with just a laptop and internet in hand and few lines of code, I could do nothing but sit and listen to the radio. When the nation wanted each and everybody of us to contribute in some or the other way for our people in danger, I was unable to turn my expertise into a valuable contribution. A couple of hours later my friend from Singha Durbar called me and asked if I could be of help in setting up an public earthquake rescue and relief portal. It came to me like an opportunity I was looking for. I quickly packed few cloths in my bag and ran to the National Information Technology Center.

I spent about a week, day and night working on the earthquake portal, connecting the people with demand to people who had supply. During this period it was very hard to get information from government officials as most of them were not in digital format and those which were in digital format were not standardised which made my part of work daunting. There were many other problems including getting information from officials due to hierarchical authority system in our government and lack of proper management. This is when I learnt a lot about how works are initiated, proposed and get stuck in between.

Working just for a couple of weeks there gave me immense self satisfaction for servint the country and the countrymen in times of need. I was enough motivated already to keep doing whatever is possible from my side for betterment of my country and to make it a better place. Being selected as daayitwa fellowship fueled my motivation and desire.

4. Looking at KMC e-gov master plan

a. Problem Statement

The government of Nepal has taken initiative to modernize the services of government with latest technology. An e-governance master plan is planned for overhaul in policies, services and delivery of public services making it citizen and public friendly, promoting sense of security amongst its citizen

including women, children and disabled and showing vibrant atmosphere for industrial development.

b. Structure of the Proposed Plan

The proposed plan of KMC is divided into three time frames. Short term, mid term and long term.

Short term planning has a focus on improving the connectivity within the KMC office. Improvements includes both softwares and hardwares with their proper functionality and security. The short term plan has been framed for two years. Mid term planning focuses on overall development of e-governance system in and around KMC while the long term plans, which are planned over more than five years, will focus on integration of e-services to citizens, making kathmandu a smart city which eventually will keep maneuver for life long.

5. Key Points mentioned in the e-gov master plan of KMC

a. Centralized and single application for each and every metropolitan city

Kathmandu is a city equipped with modern amenities and internet facility so are people living in the city. Almost everybody has access to good internet service, has a smart phone and personal computers with them. Kathmandu can be a very good model city to build applications with latest technology and it can be a sandbox city. In this way well tested and useful applications can be replicated in all the other metropolitan city keeping the control of everything at the center.

b. Web enabled application for delivery of services

This is one of the very important point which is mentioned in the e-gov plan of KMC. To enable services like registering for a company, or driving license or even paying a simple public bill can be processed via web. One can it home and do on their laptop or even on mobiles. This will not only reduce the long lines at public offices for petty services but also make it very easy and time saving for general public. While a lot of such public services are already made web based there is surely a long way to go.

c. Centralized database

While this is very necessary for central government to maintain a central database, the technicality of it can be very daunting. At first it needs to be highly secure because since all the database will be at one place, it makes it

more vulnerable to hackers. A single hack can cause big harm. Besides, managing such a large database will not only require expert in the field of data science but also it needs to be maintained routinely and diligently.

6. Key Recommendations

a. From bureaucratic to participative governance

What we have today is a bureaucratic government system, one in which administrative powers follows a hierarchical order (top to bottom). It can take ages for small decision if it requires higher authority approval and hence important tasks can take longer time. Which in turn affects the entire system's performance. When services are to go online and live on web, this system doesn't help. The system needs to be open and participative. An open and participative government is transparent, responsive and innovative. It can be both top to bottom or bottom to top depending upon the difficulty in execution and need of approval from authority. By creating and making services available online means government is reaching out to public, in other words being participatory, unlike the bureaucratic governance where for every single and smallest task one has to go to public office to get it done.

b. Social Media Presence

While having website, web and android applications might serve well in many cases but when it comes to pushing very important and quick information such as making national announcement, informing people about quick message from the president, app and web portals might not work fast because not everybody might be looking at it every time. This is where social media comes in the picture. We must not forget that recently when earthquake hit Nepal it was facebook and twitter through which not only ministries reach people with valuable set of informations but also people reached out to police, armies, and other government officials to get/offer help. Nothing can be quicker can this. Hence every public agencies including Kathmandu Metropolitan city needs to have proper social media accounts and person to handle it to make sure important information, notices etc are put out there in real time so that it can reach people in no time.

c. Share everything online (Open Data Initiative)

UK is best example of open data initiative of government in the entire world. They put all the possible public data online. Those data are not only put their

for transparency but numerous useful applications are made out of it by private and public organizations making life easier. Today to access simple data one has to get an application and approval and in addition to that she has to visit the agency requesting for the data. Worst, they don't get in digital format but a printed form of which nothing useful can be done but beholding. Making data has a lot of benefits of its own. It makes government look transparent, accountable and tenacious.

d. Go cloud

Having one single database and placed at a single data center might be daunting task to handle them all. Having cloud servers of our own can be very useful. Various platform, software and infrastructure can be made available as a service. Kathmandu city has all the amenities to make it happen and it can be an example for other major cities in Nepal to implement there too. It will be more easier, faster and reliable.

In January 2010, the United Kingdom government announced the creation of its own internal cloud computing system as part of a radical plan that it claims could save up to £3.2bn a year from an annual bill of at least £16bn.

The key part of the new strategy should be the concentration of government computing power into a series of numbers of highly secure data centres

e. Present and the Future is Mobile

Hardly any IT service can survive today without offering mobile applications of hte same. Interestingly few have closed web based services and decided to go only mobile. Mobile for sure is unequivocally the present lion and undoubtedly the future. Government while building any online service, must also think of developing mobile applications of the same to make sure all their services are at every citizen's just few touches and swipes away.

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