

E-Governance - The Case of DistrictNet in Uganda

Arjan de Jager and Victor van Reijswoud

E-Governance is a powerful tool for bringing about change to government processes in the developing world. E-governance operates at the cross roads between Information and Communication Technology (ICT) and government processes, and can be divided into three overlapping domains: e-administration, e-services and e-society. In order to be successful, e-governance must be firmly embedded in the existing government processes, must be supported, both politically and technically, by the governments, and must provide users with reasons to use these on-line domains. In order to maximize the impact, process change needs to be considered part and parcel of e-governance.

In this report, we present and evaluate an e-governance programme in the East African country of Uganda. The programme, DistrictNet, tries to provide transparency at the local government level and to improve the provision of public information through the implementation of Information and Communication Technology (ICT). DistrictNet started in 2002 and is on-going. The achievements of the programme are presented and evaluated according to the criteria of the three domains of e-governance and their impact on government processes. On the basis of this evaluation, we elicit lessons that can be used to guide similar programmes at the local government levels in the developing world.

In developing countries, information and communication tools are often welcomed as an important instrument for accelerated change. ICT programmes are used to increase the efficiency and effectiveness of organisations and to help align processes with best practices from the developed world.

Governments in the developing world are under a lot of national and international pressure to increase transparency, support decentralisation, decrease corruption and participate in global digital information sharing. At national level, the private sector insist on more openness and willingness to participate in transparent relationships, and citizens are request their governments to provide better, faster services and to extend their information and services to the rural areas. As such, governments in developing countries are more and more challenged to meet these demands (United Nations, 2003).

Guiding principles for successful e-Governance

The United Nations defines e-government as "A government that applies ICT to transform its internal and external relationships" (United Nation, 2003). ICT allows a government's internal and external communications to gain speed, precision,



simplicity, outreach and networking capacity, leading to reduced costs and increased effectiveness. In addition, it can equip people for genuine participation in an inclusive political process. E-government is characterised by a movement away from centralised, vertical and hierarchical government towards polycentric networks of governance, and by the rapid introduction of ICT in order to transform the generation and delivery of public services. ICT can increase the efficiency of an organisation's work by automating existing processes; it can improve these processes by introducing changes; and it can even enable a fundamental rethinking of the processes. These advantages are applied in the three domains of e-governance: e-administration, which focuses on improving the internal workings of the public sector; e-services, which focus on improving the relationship between the government and its citizens; and e-society, which extends the other domains by focusing on institutional stakeholders to build durable partnerships and social and economic communities.

Successful e-government depends on several principles, which can be grouped, broadly, into:

- The reasons that governments should use ICT and develop an on-line presence;
- The ability that governments have to use ICT and create that on-line presence; and,
- The reasons for people to use ICT to communicate with the government.

DistrictNet

Over the past fifteen years, Uganda has shown a remarkable recovery from economical, social and political turmoil. However, in spite of this recovery, Uganda is



still a poor country and the penetration of ICT and level of Internet use is low. It is against this background that Uganda's DistrictNet e-government programme began in 2002. It has now completed its first pilot cycle. Information on the programme has been collected through document analysis, interviews, and participant observations, in order:

- To examine the focus of the programme and the levels to which it has supported or changed existing processes, and/or introduced new processes; and,
- To evaluate how the programme optimises government operations and supports human and societal development.

ICT for rural development

DistrictNet's general goal was to improve the transparency of local government and to support decentralisation through the implementation of ICT, thus meeting the Ugandan government's broader goal of decentralising its operations. The programme emphasises the domains of e-administration and e-services; e-society is not within its scope. Until May 2005, the programme was fostered by Uganda's Ministry of Local Government (MoLG), with initial investments and running costs financially supported by DFID through the International Institute for Communication and Development (IICD) in conjunction with the MoLG. Since then, it has been the responsibility of the districts in which it has been active.

DistrictNet emerged from a March 2001 Roundtable workshop organised by IICD and Uganda Communications Commission (UCC) themed "ICT for Rural Development," during which a number of problems at the district and sub-county levels of government were identified. The introduction of ICT at these lower levels was proposed as a means of addressing these problems.

DistrictNet aims to achieve five overall goals:

1. increased availability of management information;
2. increased coordination between headquarters and sub-counties;
3. reduced costs of coordination between head-quarters and sub-counties;

4. improved IT skills among users; and,
5. increased availability of public information.

The programme has been implemented in four of Uganda's 76 districts (Mbarara, Lira, Mbale, and Kayunga), covering the country's west, north, east and central regions, and within these districts has been focused on eleven sub-counties. DistrictNet is a pilot designed to test concepts and to build a body of knowledge. The programme was aligned with the UCC's plans to spread Internet connectivity to District centres and the Local Government Development Programme' plans to restructure government bodies to help with economic growth and poverty alleviation. IICD supported the formulation and implementation of the programme via research, strategic advice, capacity development (in ICT skills and soft skills) and general programme management.

Processing data

At the start of the programme, voice and data links were established to link offices in the district headquarters; connections between headquarters and the sub-counties were less straightforward and demanded some innovative strategies. Four of the sub-counties were chosen precisely because they were off the electricity grid, and thus the implementation relied upon alternative energy sources. Since its implementation, DistrictNet has transformed the way important information is processed in the pilot districts. Initially, basic data was



collected on standardised hard-copy forms at the parish level and forwarded to sub-county administration, which was responsible for compiling these forms and forwarding them to District headquarters. Problems included slow data collection, with information backlogs of three to six months, and loss of data in the process.

Since the implementation of ICT under DistrictNet, basic data is still collected at the parish level and forwarded to sub-county administration using hard-copy forms, but once at this level it is digitised before being forwarded to district headquarters, where district planners perform data analysis and provide timely feedback to the sub-county administration. In addition, lead times for data arrival at the MoLG have improved dramatically, and as MoLG is no longer involved in digitisation, its staff can work more effectively at analysing data and making decisions. Despite being in its early stages, DistrictNet is already a unique example of e-administration and e-services in East Africa.

Challenges

Implementing DistrictNet was a major challenge from the start, and the rural setting and scale posed some new and unexpected problems. For instance, professional technical ICT knowledge and computer literacy levels were much lower than anticipated. In addition, implementation progressed slowly until the Districts assumed ownership of the programme in May 2005, at which point the quality and pace of implementation improved greatly. Furthermore, the strong technological focus at the start of the programme created delays, as decisions had to be made regarding which types of hardware, software and network connections were most suitable in the programme's rural context, thus delaying the move to the next level of services.

Learning model

DistrictNet can serve a reference and learning model for other e-governance programmes in a development context. The programme is designed to extend in all three domains of e-government: e-administration,

e-services and e-society. Furthermore, the programme not only automates the existing processes, but also prompts the improvement of processes, notably in budgeting and planning, which have been re-structured and optimised. The programme had its greatest impact at the levels of e-administration and e-services, where ICT has optimised and sometimes restructured processes.

Lessons learned

Lessons learned can be placed in three categories. 1. Focus on ICT in government operations:

Programme developers should think big, but begin small, and that they should create feedback loops in e-government programmes.

2. Ability to use ICT in government:

It should be stressed that capacity development is a key success factor. Further, in e-governance the primary focus is often on technical aspects like ICT infrastructure rather than organisational and social aspects. It takes time to change this technology-focused attitude and needs to be addressed from the start of the implementation.

3. Strategies for connecting citizens:

Connecting citizens to the programme is probably the biggest challenge. Information should be seen as a commodity and content must be easily available and useful.

The DistrictNet project taught us that potential users can be trained in using the services offered and that the staff members of the project can be trained in basic ICT applications, project management, and financial management. At the operational level, the rule that "people learn when they see how they can use their skills and knowledge" was proved valid once again.

The difficulty is in training the staff members how to use the data at a more strategic level, so they can transform the data into useful information and knowledge. Thus, two critical factors in good governance programmes are the creation of information flow procedures and the development of solid training programmes in information management.

Conclusions

DistrictNet has created a wealth of experiences and provides a rich model of reference for other e-governance programmes in Africa. The programme is a showcase of what e-governance in rural areas can look like. New technologies have been introduced and tested, and the programme has provided clear evidence that the introduction of ICT at the local government level can lead to major improvements in performance. At the same time, the programme shows that the low penetration of ICT skills and equipment in countries like Uganda limits the way such initiatives can move into e-administration and e-services, and makes e-society unreachable for the moment.

Governments need to continue their efforts to develop ICT infrastructure and to increase the penetration of ICT skills among their citizens, especially concentrating their efforts on the rural areas, while development partners should establish more research programmes to ensure the successful implementation and support of ICT.

With the right tools, people in developing countries can considerably improve their livelihoods and quality of life. Better access to information and communication technology (ICT) is particularly vital in enabling them to achieve their goals. This is why the International Institute for Communication and Development (IICD) creates practical and sustainable solutions that connect people and enable them to benefit from ICT. As an independent not-for-profit foundation, we put knowledge, innovation and finance to work with partners from the public, private and not-for-profit sectors. Together, we can make a world of difference. IICD is active in Africa, Latin-America and the Caribbean, where we create and enhance development opportunities in education, good governance, livelihoods, health and the environment. Our approach includes linking local, national and international organisations as well as formulating and implementing ICT-supported development policies and projects. IICD was established by the Netherlands Ministry of Foreign Affairs in 1996. Our core funders include the Dutch Directorate-General for Development Cooperation (DGIS), the UK Department for International Development (DFID) and the Swiss Agency for Development and Cooperation (SDC). For more information, please visit www.iicd.org.

Dr. Victor van Reijswoud (victor@eacoss.org) is Professor of Information Systems and E-Commerce in the Department of Computer Science and Information Systems at Uganda Martyrs University – Nkozi in Uganda (www.umu.ac.ug). Drs. Arjan de Jager (ajager@iicd.org) is manager of the IICD Uganda Country Programme and has been actively involved as advisor in the DistrictNet programme.