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Imad Abugessaisa

*Future Position X*, [imad.abugessaisa@fpx.se](mailto:imad.abugessaisa@fpx.se)

Ake Sivertun

*Linköping University*, [akesiv@ida.liu.se](mailto:akesiv@ida.liu.se)

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# ICT in regional networks in the field of culture and development cooperation

**Imad Abugessaisa**

Future Position X  
975 SE-801 33 Gävle, Sweden  
imad.abugessaisa@fpx.se

**Åke Sivertun**

Department of Computer and Information Science  
Linköping University  
SE-581 83 Linköping, Sweden  
akesiv@ida.liu.se

## ABSTRACT

This paper presents results from a mapping study commissioned by Swedish International Development Agency (Sida), which has supported regional and global networking within the field of culture. The mapping study was carried out in East Africa to find ways to collect and use experiences already made and to draw conclusions on the status and use of ICT in the culture networks supported by Sida. Another goal was to gain an understanding of the level to which ICT is used within the cultural sectors in East Africa. The study was focused on two main cultural sectors – museums and drama/theatre. A variety of research methods were used. It was found that there were well-established culture networks in both theatre and museum sectors. Through these networks, ICT has been used for sharing knowledge as well as being a tool for communication. Also it has supported dialogue among many different culture groups in the region.

## Keywords

ICT, DRAMATOOL, East Africa, Culture Networks, Sida.

## INTRODUCTION

Sida's Division for Culture and Media<sup>1</sup> support global networks in the area of culture and media has been an important development tool in the region. The wide range of active individuals and networks within the field of culture requires an effective communications system. An effective communications system bridges the professional gap that exists within networks and creates an arena for dialogue and social debate (Scardamalia and Bereiter, 1994). The supported networks share similarities as well as differences in terms of activities in the development of the region. In terms of Information and Communication Technology for Development (ICT4D), the experience showed that there are limitations to the exchange of knowledge and the sharing of experience. This is where ICT could support scaling up such activities. This study was carried to:

- Find ways to collect and use experiences which have already been made using ICT4D within the field of culture.
- Draw conclusions and formulate recommendations for effective communication networks supported by the Division for Culture and Media.
- Define a set of operational guidelines on how to provide support and advice on this issue.

## GEOGRAPHICAL AND ORGANIZATIONAL SCOPE OF THE STUDY

The target region of the study was East African countries. There has been significant development and implementation of ICT in East Africa as a result of economic and political changes which have taken place. Statistics from International Telecommunication Union (ITU) shows the progress in ICT infrastructure and the resulting increase in the number of users.

There similarities as well as a long history of cooperation and networking between educational and cultural organizations in the region. In the field of culture, Eastern Africa Theatre Institute (EATI) hosted projects in the areas of theatre and ICT4D that were funded by Sida.

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<sup>1</sup> <http://www.sida.se>

## THEORETICAL FRAMEWORK

The power of ICT has been vividly debated. Most experts however recognise the importance of access to information and communication. The possibility for a society to survive and develop is depending on the abilities to adjust to new challenges and possibilities including the rapid development of ICT as in (Diamond, 2006). The technology will have great impact on the whole society and how the identity of the citizens will be developed see (Castells 1996-98). As always mass communications can be used for both good and evil purposes as in Rwanda where the conflicts between different groups, the violence and following homicide was promoted by radio and other media. ICT can also be used as a tool in the struggle between the different power groups as reported in Flyvbjerg (1998). Similarly, we learned during our visit to Ethiopia that the SMS channel had been disabled since one year due to an accusation that the opposition used SMS improperly in the past election campaign. On the other hand several authors show that the key to progress is networking – especially in countries or regions where human and other resources are scarce. To share information and resources in Information age - where Information want to be free - is as common as the fruitless efforts to keep data and knowledge for only your own benefit. The “Generous Man” is also as common as the selfish “Economic Man” according Nørretranders (2005) - at least if the right incentives are given. The goal with the Sida support to ICT for the cultural area in East Africa is such an attempt to provide frameworks for a positive development and creating preferable conditions for sharing experiences and learning from each other. However deployment and utilisation of ICT is depending on many different factors like the technical and economic access to high speed Internet connection and broadband as well as organisational and cultural factors. The implementations of ICT solutions must consider the specific situation in each country but also analyse the technical and economic development of key issues. In our study we have tried to use the perspectives given in earlier mentioned works together with the ideas given by the participants in the projects and respondents from several meetings in Sweden and Africa.

## RESEARCH METHODOLOGY

The study methodology was based mainly on interviews. The objective is to find some parameters that could be compared directly between the different countries and projects.

### Interview with program officers

The main source of information was the program officers in Sweden that were involved in the networks supported by Sida. Different techniques were used to collect information from them. Face-to-face interviews were carried out in Stockholm and Gothenburg along with email exchanges and telephone interviews with those who were traveling. In particular the program officers were asked the following:

- What internal conditions and measures were taken in order to achieve Sida’s ICT4D intervention targets?
- What choices for ICT use, including portals, freeware, software, digital resources, and interactive sites, were made and why?
- What were the project partner’s opinions and acceptance of such choices?
- What risks have been previously identified? Should specific networks in the field of culture expect these risks when they integrate ICT?
- What strategic choices were made with respect to the use of ICT in future missions in East Africa?

### Visit to the organizations in East Africa

The team visited three countries in East Africa in order to achieve a better understanding of the underlying aspects and the level of ambition for using ICT in different projects (Unwin, 2006). The visits to Tanzania, Ethiopia, and Uganda were carried out during May 2008. The original intention was to investigate the matter, not only with the project leaders in each country, but also with the grassroots practitioners. This would allow the team to hear first hand their opinion about the benefits and limitations of ICT in their profession. During the visit to Tanzania, the team visited Tanzania’s House of Culture, the EATI secretariat, and the Bagamoyo College of Arts.

In Uganda the team visited the Department of Music, Drama, and Dance at Makerere University, the Uganda Theatre Network, the Uganda National Cultural Center (UNCC) and the Uganda National Museum. It was considered more relevant to talk about ICT issues during the field visits. It allowed the team to encourage the project participants to freely express their opinions, talk about their experiences, and share their future expectations.

### Mini-workshops

During the visit to the region, a mini-workshop was held in each country. The participants in these workshops were students, professional artists, drama teachers, and DRAMATOOL center managers. The main objective of the mini-workshops was to

understand how these groups were communicating and how they were sharing information about the events and activities that were organized by the national chapters as well as communicating with their colleagues internationally.

### **Website content analysis and survey**

From interviews with program officers, it is known that most of the projects developed web portals. These portals provided a way for the artists to discuss and share opinions about events and activities. After accessing all the available websites a content analysis was performed using methods from (Miller *et al.*, 1994). The main objective was to examine the levels to which the website was accessed as well as discussed and to analyze the quality of data provided.

### **FINDINGS**

#### **Beliefs about the importance of ICT in the culture sector**

Among all organizations that were investigated and interviewed, there seems to be a belief in the importance of ICT in the networking and communication of artists. DRAMATOOL (see coming section) has played an important role in the process. It has been used by artists to facilitate the development of skills through the sharing of ideas and knowledge as well as through working productively with one another. According to participants in the workshops, such beliefs and understanding of ICT did not exist before the introduction of the DT projects. DT has had a worldwide impact through the support networks of practitioners and professional artists who live outside the EATI countries. All participants agreed that the knowledge and skills gained using ICT were very important, not only for the communication and networking of various culture groups, but also for the individual development of the participants. The capacity-building efforts of DT are reflected in the way the project has sustained itself.

#### **DRAMATOOL**

DRAMATOOL<sup>2</sup> (DT) was a Sida-funded program from 2003-2007. It was intended to provide an important step in creating ICT awareness among drama and theatre organizations, and grassroots practitioners. It was an important step by Sida in creating demand for the introduction, development, and deployment of ICT in drama. DT is both a regional and Global network where those who have interests in drama can communicate, share information, coordinate and cooperate in order to empower each other. In addition to practitioners, the other key segments of the drama/theatre population targeted were those at the grassroots: artists, storytellers and students. The two main challenges that faced the DT project were: specific IT-infrastructure that could reach those at the grassroots, and how to deal with computer illiteracy (Leach and Scoones, 2006). DT centers in each country acted as a meeting point for those at the grassroots level who were taking their first steps in learning and practicing ICT through basic courses as well as accessing the Internet.

Participants in the mini-workshops expressed their appreciation of the current DT website and how it linked them to their colleagues worldwide and allowed them to follow international and regional events and activities: festivals, workshops, courses, and conferences.

#### **Communication among artists in the region**

Due to the limited basic computer knowledge and access to the Internet, SMS is used extensively for announcing performances and other activities (International Telecommunication Union, 2007). Blogs are used by a small group of artists. This provides more flexibility as well as more efficient modes of communication for the bloggers to interact, discuss, and express their ideas. Email is used as a means of communication between the national chapter coordinators in each country.

#### **ICT in art production**

In June 2004, the Bagamoyo College of Arts<sup>3</sup> (BCA) launched a project to develop its capacity in multimedia training and production. This was part of BCA's goal of strengthening the capacity of the college's core activities in art education. The project aimed at developing BCA into a regional Center of Excellence in the use and training of multimedia for art education and artistic production. The completion of the following activities provided important project milestones:

- Development of a new curriculum that offers ICT courses to all students at the college.

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<sup>2</sup> <http://www.dramatool.org/>

<sup>3</sup> <http://www.sanaabagamoyo.com/>

- Staff capacity building. The plan is to train all staff in the use of ICT and develop their skills. This will allow the staff to train their students in the use of ICT and also to use it in the administration of the college.

A direct result of this project is that BCA is now able to produce artistic works using ICT and multimedia facilities. BCA participation and performance at the WSIS 2005 in Tunisia is a tangible result of the effectiveness of this project. BCA is now hosting a DT center that offers ICT training for staff, students, and artists in the town of Bagamoyo.

The BCA also established a multimedia lab that was used for artistic productions as well as the production of plays and other multimedia applications such as video editing. The current curriculum at BCA is now being adapted to support the requirement of ICT training. Part of the student training began with the use of interactive audio visual instruments in the classroom. BCA now offers ICT training for college students and the general public.

Mekuria Theatre Studio & Entertainment (MTSE) used ICT and multimedia tools in the production of two documentary films in Ethiopia for the TV Africa Channel O and National Geographic. In Ethiopia, the availability of fast Internet connections is lacking and a hindrance to the development and use of ICT. However, according to the participants in the mini-workshop in Ethiopia, the topographically complicated country could benefit from ICT development by offering electronic communication services to different regions.

### ICT in current museum networks

The Swedish African Museum Partnership<sup>4</sup> 'SAMP' has been actively working with the Tanzanian National Museum in the development of the "House of Culture". This has involved two activities:

- Book project - digitization of library books

The museum has a unique collection of old and valuable textbooks that were written by both international and national scholars about the history of the country. The project aims to keep this valuable resource alive by digitizing the textbooks and indexing them into an online electronic catalog. This will be made accessible to both visitors and researchers.

- Computerization efforts

A database system was built for the documentation of the different collections at the museum – both photographic and scanned material. There are two types of databases currently used at the museum (Museum objects and Library collections). The system was created to keep track of their own collections as well as assist in the automated searching, labeling, and location of objects. The automation effort includes development and maintenance of the museums website and E-documentation, this project aims to use multimedia tools for the documentation of national events as well as to improve the way cultural heritage is presented in museum halls. It also aims to document national folklore by using DVD, VHF tape, and TV.

### Challenges

ICT may help promote cultural activities and networking, but only if professional artists at the grassroots level have access to new technologies (Heeks, 2002). These technologies would provide the tools needed for intensive networking and communication sharing. They would also allow people to learn from one another's experiences from within the different cultural domains (McSweeney, 2002). Artists and teachers need to have sufficient knowledge in using ICT in order to work together productively. There are a lot of challenges facing the promotion and use of ICT in cultural institutions - museum and drama - in East Africa. The following summarizes the current challenges:

#### *Language challenges*

There are a number of formal and written languages in the different EATI countries. In order to reflect the local perspective, a translation is often needed to take the news from one language to another. Language was mentioned several times as the main barrier to the accurate reflection of local perspectives as well as not being able to respond to the local needs for ICT (Kenny, 2006). Language plays an important role in being able to reach local communities (Grimes, 2000). It is a key factor in the promotion of user-created content (UCC) as well as active participation in ICT web-based projects (Marcus, 2002). Increasing UCC, together with ICT specialists in future web-based ICT projects, will hopefully increase grassroots interest and participation. This can provide important contributions to the development of the cultures, economies and artistic communities (Pohjola, 2003)

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<sup>4</sup> <http://www.samp.org/>

### *Professional development and economic use of ICT*

A real challenge for professional artists in the region is the individual development of their professional education and skills. Future ICT projects should target this objective. The projects should have a pedagogical use and their value should be able to be seen by the artist. Participants in the mini-workshop explained their need for ICT tools that provided a strong pedagogical base in terms of distance online courses in continuing education. The economic advantages emphasized by professional artists is the way that ICT projects can help create job opportunities and still be able to communicate with their colleagues worldwide. The pedagogical value of ICT should be addressed in future plans. The needs should be identified with careful examination of current tools like DT.

### *Connectivity to the Internet and electric power*

Connection to the Internet is a real challenge in the rural areas. Connections in rural areas are limited to dialups which limits access to multimedia content and results in unaffordable operation costs. Another challenge encountered in rural and some urban areas are the frequent power outages that are common experiences in all the investigated countries. Artists often travel from their village or suburb in order to check their email or to surf the Internet for news. In Uganda, DT coordinators, with the help and cooperation of the Department of Engineering at Makerere University, invented a local solution for the DC power supply. The solution made use of materials that were available in the rural areas. Broadband connectivity is vital when accessing multimedia tools. The rollout of broadband Internet in East Africa is far from sufficient. It is almost nonexistent in most rural areas. Meanwhile, development of mobile phone systems - GSM and 3G - might be a possible way to access the Internet in countries that are lacking wired and broadband solutions (Heeks and Jagun, 2007).

## **RECOMMENDATIONS FOR THE INTEGRATION ICT IN CULTURE NETWORKS**

The following section recommends operational guidelines that culture networks need in order to integrate ICT into their daily operations and business models, and when looking to strengthen and expand their current networks. These recommendations are the result of the evaluation of current ICT situations, and some of these recommendations might be applied and introduced soon as they have no links to the current IT infrastructure in these countries. On the other hand, some of the recommended guidelines and programs need a certain level of IT infrastructure, such as broadband connectivity, which is expected to be available in the East Africa region in the near future<sup>5</sup>.

### **Guidelines on introducing new ICT programs**

To avoid the negative aspects of previous experience from ICT programs, culture networks might consider the following guidelines when an ICT program is introduced

#### *Assessment study*

An assessment study of the network's needs and requirements should be conducted; this is to identify at an early stage the purpose of introducing specific tools and the level of the services that should be offered by the ICT (communication tools, multimedia tools, etc.). The study will help to establish ICT priorities and relate any future aid to these priorities (Unwin, 2005). During ICT program (s) requirements identification and implementation, **bottom-up approach will be the best choice this approach will grant encourage and involve grassroots participation in the programs and ensure success as have been pointed in (Vaughan, 2006).**

### **Improving and optimize current and future ICT resources**

Culture networks in East Africa experienced and introduced to ICT tools with the introduction of DRAMATOOL at EATI. Efforts were continued to develop DT and to mainstream ICT in the network activities and to share and exchange the experience and lessons learned. To improve the experience, future network needs to rethink and consider the following:

#### *Culture networks need to optimize their ICT use within the networks*

The use of ICT should be linked to available resources like trained personnel, IT infrastructure, and ongoing activities and programs. This is to locate the right person(s) in the right place, and to create IT tools when necessary, considering the use and feasibility of the specific tool. A suitable business model and value-added services of ICT ought to be defined in each network (Wagner *et al*, 2005).

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<sup>5</sup> <http://www.eassy.org/>

### *Resource allocation and distribution*

Most of the ICT resources that were introduced as part of the early projects have been allocated and are available to a small number of network members (i.e., at the CEO office and the national chapters). The tools and equipment have not been as widely accessible or used at a grassroots level. ICT resources should be relocated and distributed according to actual needs, workload, and geographical distribution (urban and rural areas).

### *Networking with NGOs, universities and private sector*

Experiences from previous projects have shown that partnerships and networks created between public organizations and private companies, are effective and it encourages entrepreneurship. Individual artists rise to the challenge and start their own art production houses and begin marketing their work. In East Africa a number of NGOs are operating in sectors other than culture; this should be a great opportunity for the culture networks to explore those NGOs. In addition to the NGOs, universities and higher education institutes are a good choice for possible partnership (Unwin, 2005). Both NGOs and universities can offer support, host training centers, and offer connectivity to the Internet, which will also help to sustain existing programs and reduce operation costs.

### *Consider traditional media*

Rather than rely on one modern ICT tool, networks should explore traditional media (local TV , radio, and printed material) as an alternative for broadcasting information.

## **Development of culture network as knowledge- and cyber-networks**

Culture networks needs to be converted into a real knowledge network for the promotion and development of theatre in East Africa. EATI Secretariat should consider existing and future ICT tools to develop and move towards an Internet-based network (cyber-network) which will link and improve communication, performance and knowledge exchange among EATI National chapters. To reach the above-mentioned objectives the following might be considered:

### *Computer Supported Cooperative Work (CSCW)*

To increase cooperation and networking among artists in the region, Computer Supported Cooperative Work (CSCW) and groupware tools will provide better opportunities to make the networks more dynamic, and will support a culture of cooperation and sharing for art production (Mark and Semaan, 2008). CSCW is an environment that enables coworkers and networks to digitally share information and facilitate online collaboration. A typical CSCW environment comprised of hardware and software, as well as a shared information space (Fischer and Palen, 1999). The technical requirements for the design and implementation of CSCW systems are, computer networks, connectivity to the Internet, emails, and Multimedia facilitates. In this regard, the only barrier in some countries will be a lack of Internet connectivity, which is on the way to being solved in the near future as national backbones are being constructed and future international connectivity should be solved through the connection to the EASSy<sup>6</sup> cable. Groupware tools will help make information transparent to all parties involved in the network.

### *Cyber networking*

Cyber networks need to be developed by developing collaborations and partnerships on simple communication models (Net meetings, group emails, and computer-supported cooperatives). The above-mentioned guidelines are not so far from being achieved if the networks benefits from the existing infrastructure at both the EATI Secretariat and the national chapters with additional resources.

## **Programs to keep linguistic diversity**

One important issue to consider is the need to preserve the linguistic diversity in the region - trying to find ways to assist with the translation of artistic work - poets, plays, and scripts. Language diversity is essential to human heritage as each and every language embodies the unique cultural wisdom of a people. Africa is known to be the most linguistically diverse continent (Grimes, 2000 & UNESCO, Atlas of the World's Languages in Danger of Disappearing, 2001). Through DRAMATOOL, efforts have been made to translate the news from English to Amharic in the Ethiopian chapter and to Swahili in the Tanzania and Kenyan chapter. In the case of Uganda, there was no translation to any local language as English is the official language in the country. ICT solutions need to be employed to keep the linguistic diversity of these countries in order to protect the

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<sup>6</sup> <http://www.eassy.org/>

human and cultural heritage in the region. It is important to support initiatives such as the UNESCO *Atlas of the World's Languages in Danger of Disappearing* which identifies local languages that are at risk of disappearing. It will be of great benefit for the region to develop such Atlas. It also identifies initiatives that help train those active in the field of culture in using online translation tools and how to keep up with their development.

### E-publishing

A big effort was undertaken in the Tanzania House of Culture to digitize the books in the museum library. At Uganda Theatre Network, the collection of plays and scripts are under threat of being exposed to damage or being lost altogether. Makerere University is facing the same problem. To prevent that happen, the following may help:

- Systematic efforts should be made to keep these resources and prevent them from being lost.
- Open source for e-publishing can be utilized for the establishment of the program.
- To make artwork accessible, current information centers in the national chapters need to be digitized and converted to electronic archiving, especially for managing the collections (artwork, scripts, and plays).

The main objective is to make the art work widely accessible to the reader. In addition to a student thesis and research in drama and music, the publication can include scripts and plays. Nowadays, electronic publishing (making work available on the Internet) is particularly exciting not only because of the broad dissemination of the work, but also because of the potential for incorporating more than simple text into an article. Multimedia, such as sound and video, are all capable of being published and accessed by the public.

### CONCLUSION

The paper highlights the current situations of the ICT integration in the culture networks in East Africa, for the above mentioned recommendations to find the way for application, issues like cyber networks, openness, sharing and dissemination of knowledge and information, should be addressed by both donors and networks members. The lack of understanding and absence of regulations related to copyright will be the main obstacle. Approach like Creative Commons (CC) will encourage the sharing and exchange of knowledge in the region, which should be considered since it will be difficult to convince artists to digitize their work as long as copyright issues are not resolved in the region.

In the region, the museums lack any kind of electronic Collections Management System (CMS). A CMS is required to simplify the process of collecting and managing information about the objects in the museum or the objects that are borrowed or moved from the museum.

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