WITFOR 2005

Commission on Social, Ethical and Legal Aspects (SELA)

1. Executive Summary

It is clear to most actors interested in the use of information and communication technology (ICT) for socio-economic development that ICT raises as many problems as it solves, albeit at another level. It is the task of this commission to concern itself with some of the consequences of the use of ICT for development. It is most certainly clear that ICT is a double edged sword. For example we know that technology embody the assumptions, values and beliefs of the people that define it and build it. Technology is not neutral. Thus by implementing technology developed in the West some of the values of the West is unwittingly also taken onboard. By implementing these technologies certain practices (ways of living) are being reproduced in settings that might not be ready for them or might not even desire them. This is the social 'cost' of ICT. This commission is very aware of the social and ethical 'cost' of technology. However, it is not necessary wise to conclude therefore that we should dismiss all technology. It rather suggests that we need to always be critical and not adopt technology in a naive and uncritical manner. We should always scrutinise technology (and the practices it assumes) and be prepared to adapt it to make sense for the people affected by it. The commission took this attitude as its guiding principle. In order, however, to move forward the commission identified three areas of work: first, to create an online infrastructure for collaboration and reflection; second, to harness technology for indigenous use; and thirdly, to address some of the consequences of technology. This has resulted in three projects:

- Project 1: Collaborative online community for civil society
- Project 2: Internet based network for indigenous knowledge
- Project 3: Policy and capacity building for dealing with cybercrime

2. Introduction

The Commission on Social, Ethical and Legal Aspects (SELA) functioned as a virtual working group. The commission met on three occasions to augment the virtual work. The membership of the commission is as follows:

Chairs: Prof Lucas D. Introna, Lancaster University, UK
Prof Abiodun O. Bada, The George Washington University, USA

Members:

- Prof Adekunle Okunoye, Xavier University, USA
- Prof Hannes Britz, University of Pretoria, South Africa and University of Wisconsin – Milwaukee, USA
- Dr Jaki Phahlamohlaka, University of Pretoria, South Africa
- Ms Justine Johnstone, London Metropolitan University, UK

A number of additional experts have also been consulted in the production of this document.

3. Problem area investigated

The scope of the commission's work is undoubtedly very wide. It is possible to identify a huge number of initiatives or projects that could be addressed. The commission did not intend to reproduce existing work. It would rather try to link into and add to existing initiatives; as such it identified three areas of work: community, indigenous knowledge and cybercrime.

There are many initiatives for bridging the digital divide and using ICT for development in Africa being funded and managed by a wide variety of international and national institutions. However, there is not one place (location, forum or community) where all of these initiatives become visible and where synergy can be sought. Thus, there is a need for a common place (or infrastructure) where: policy can be developed, potential projects can be discussed, priorities can be decided, case studies and good practice can be shared, etc. There therefore seems to be a need for an online collaborative community that will function as a mechanism to achieve these goals.

One of the key challenges in bridging the digital divide is to make the internet relevant to local people. This calls for local meaningful content. In addition to this there is a desperate need to capture, preserve and develop indigenous knowledge. Both of these needs can be addressed by the creation of a locally owned and driven indigenous knowledge network built within the existing infrastructure of the internet. This initiative will build on exiting indigenous knowledge centres.

Cybercrime and other internet-related crimes constitute serious problem for the growth of electronic business and thus require a detailed study of its nature and consequences for commerce and socio-economic development. Such detailed understanding can enable the development of appropriate measures and laws to combat the problem. However, in developing countries, especially in Africa, such laws, which arise as a result of a prior investigation of the nature of the problem of cybercrime and its implications for e-commerce, are not present.

In order to address these issues a number of exiting case studies were identified as well as the research needed to support the projects proposed by the commission.

4. Findings

Case 1: Example of an online collaborative community

MISTICA: a collaborative online community on ICT and development in Latin America

MISTICA – Methodology and Social Impact of Information Technology and Communication in Latin America

URL for MISTICA: http://www.funredes.org/mistica/

MISTICA is a collaborative online community that aims to strengthen the social actors of ICTs of Latin America and the Caribbean, through the constitution of a human network for research and appropriation of new technologies. The main objective of the project was and is to achieve a reflective virtual community capable of collaboration—not just the sharing of information but the creation of collaborative products.

The two promoters of the project are **IDRC** (International Development Research Center of the Canadian Government – http://www.idrc.ca) and the **FPH** (Charles Leopold Mayer Foundation for the Progress of Humankind – http://sente.epgl.ch/fph/). The main implementing organization

is Networks and Development Foubndation, **FUNREDES** (Fundación Redes y Desarrollo - http://funredes.org).

The main objectives of MISTICA was:

a) To identify and contact active researchers and institutions working in social development in Latin America from the ICT perspective.
b) Develop and reinforce exchanges and cooperation in research between key actors.
c) To debate collectively, in face to face meetings or through the Internet, agenda and priorities regarding the challenges of the ICTs for the development of the region.
d) Organize regional meetings to debate key problems and define strategic priorities for research and action regarding ICT for development.
e) To organize and experiment with tools of virtual community before, during and after the regional meeting.
f) To organize and maintain a reference web site (clearinghouse) with the regional information related to projects, activities, experiences and contacts of the ICTs for development in Latin America and the Caribbean.
g) Follow key ideas and support the definition of projects with seed funds.

The specific products that MISTICA produced (and is producing) are:

a) A human network for research and appropriation of the ICTs for development.
b) A methodology for the articulation of virtual communities and to allow participation at a distance in localized meetings.
c) A "clearinghouse" or network of decentralized information about actors, projects and activities related to the social impact of the ICTs in Latin America and the Caribbean.

Case 2: Example of use of ICT for reserving and developing indigenousness knowledge

Celebrating World Indigenous Languages: A Case Study of FirstVoices project[1]

What is FirstVoices

FirstVoices is a suite of web-based tools and services designed to support Aboriginal people engaged in language archiving, language teaching & culture revitalization. The FirstVoices Language Archive contains thousands of text entries in many diverse Aboriginal writing systems, enhanced with sounds, pictures and videos. A companion set of interactive online games is designed to present the archived FirstVoices language data in creative learning activities. Some language archives at FirstVoices are publicly accessible, while others are password protected at the request of the language community.

How FirstVoices Works

At the core of the FirstVoices Web application is an online language archiving tool. Each language collection consists of an alphabet, dictionary and phrase book. The alphabet provides the written character set for a language, with sample sound files for each character. The dictionary provides a word list, with translations, definitions, sounds, images and video. FirstVoices Phrase Books contain everyday conversational language with related text, sound, image and video files to support language learning.

Using the latest digital technology, Aboriginal communities can accurately document their language data and manage their own language resources. Data can then be repurposed in a variety of Web-enabled language activities designed for self-directed learning. Students customize their choice of language activity and degree of linguistic challenge while connected live to

[1] All the information in this section are directly from the website of FirstVoices

FirstVoices.com. Each new activity is populated with text and sound files directly from the FirstVoices database. FirstVoices makes creative use of the Internet with a unique set of tools providing access to the language and culture of the Elders for all Aboriginal students, whether close to their traditional territory or far away in an urban setting.

Fostering Community Involvement
FirstVoices fosters community collaboration in the revitalization of Indigenous languages. Through mentorship programs for young people and their Elders, the knowledge and wisdom of fluent speakers is passed along to future generations. Young people use their technical expertise to help their elders build media-rich language archives for their entire language community.

Summary
The FirstVoices online language archive represents an opportunity for governments, corporations, senior educational institutions and NGO's to combine their resources in one educational vehicle designed to reverse the loss of Aboriginal languages and cultures.
A number of important features place the FirstVoices Project in a league of its own:

- a "Made in Canada" solution with wide appeal among language teachers and linguists
- a design team representing Aboriginal communities, language specialists and linguists
- a leading-edge software development team
- highly creative and experienced on-line learning resource developers
- a "Train-the-Trainer" program and delivery team
- support from Aboriginal organizations, governments and corporations in Canada, the USA and Australia

Implication of the Case and relevance to the SELA project

There are many languages in Africa and elsewhere that could also be archived like Aboriginal languages with recognition of the contextual and technical differences. Our project will benefit from the experiences of FirstVoices teams and learn from their mistakes and successes. We will specifically know many issues to pay attention to during the implementation of the actionable programme of the WG. Also we have a successful example to use as illustration for potential funding sources.

Case 3: Case of policy and capacity building for dealing with cybercrime

The Case of the Nigerian Cybercrime Working Group

Nigerian Cybercrime can be defined as Computer-aided crime originating from Nigeria. It consists of 3 parts:

a) Computer-aided crimes committed by Nigerians internationally
b) Non-Nigerian computer-aided crime giving the semblance of a "Nigerian" origin
c) Crimes committed against Nigerian information and telecommunications assets

Nigerian Cybercrime can be explained in terms of the following statistics:

a) Annual global loss of $1.5 billion in 2002
b) 6% of global Internet spam in 2004
c) 15.5% of total reported FBI fraud in 2001
d) Highest median loss of all FBI Internet fraud of $5,575
e) Verisign, Inc., ranked Nigeria 3rd in total number of Internet fraud transactions, accounting for 4.81% of global Internet fraud
f) American National Fraud Information Centre reported Nigerian money offers as the fastest growing online scam, up 900% in 2001

g) American National Fraud Information Centre also ranked Nigerian money offer as 3rd largest Internet fraud in 2002, at 4% Nigerian Cybercrime impact per capita is exceptionally high:

Nigerian Cybercrime has the potential to impact technology growth which is a key requirement for productivity improvement, and ultimately for socio-economic growth because:

- International financial institutions now view paper-based Nigerian financial instruments with scepticism. Nigerian bank drafts and checks are not viable international financial instruments.
- Nigerian ISPs and email providers are already being black-listed in e-mail blocking blacklist systems across the Internet.
- Some companies are blocking entire Internet network segments and traffic that originate from Nigeria.
- Newer and more sophisticated technologies are emerging that will make it easier to discriminate and isolate Nigerian e-mail traffic.
- Key national infrastructure and information security assets are likely to be damaged by hostile and fraudulent unauthorized use.

To combat some of these problems, The Nigerian Cybercrime Project was launched with the aim of ensuring the security of Computer Systems and Networks and the protection of Critical ICT infrastructure in Nigeria

The Nigerian Cybercrime Project Background - A Presidential Committee on Cybercrime was instituted to examine the problem of Cybercrime in Nigeria and what can be done to tackle this problem. This committee came up with a report that recommended the creation of a legal and institutional framework for Cybercrime in Nigeria. Central to this report is the creation of a central agency to enforce Cybercrime laws. This led to the creation of the Nigerian Cybercrime Working Group (NCWG).

The NCWG is an Inter-Agency body made up of all key law enforcement, security, intelligence and ICT Agencies of government, plus major private organizations in the ICT sector. Some of these agencies include the Economic and Financial Crimes Commission (EFCC), Nigeria Police Force (NPF); the National Security Adviser (NSA), the Nigerian Communications Commission (NCC); Department of State Services (DSS); National Intelligence Agency (NIA); Nigeria Computer Society (NCS); Nigeria Internet Group (NIG); Internet Services Providers' Association of Nigeria (ISPAN); National Information Technology Development Agency (NITDA), and Individual citizen representing public interest. The working group has 2 Chairpersons and one Coordinator.

The duties of the Working Group includes: Engaging in public enlightenment programs, building institutional consensus amongst existing agencies, providing technical assistance to the National Assembly on Cybercrime and in the Drafting of the Cybercrime act; laying the groundwork for a Cybercrime Agency that will eventually emerge to take charge of fighting Cybercrime in Nigeria. In addition, the working group is tasked with the responsibility of working with global Cybercrime enforcement agencies in the USA, the UK and other countries who are at fore-front of fighting Cybercrime.

5. Actions to be taken

Based on the objectives of the commission and the experiences of the case studies a number of research projects and action projects have been identified. It is hoped that the case studies and research projects will guide the development of the action projects so that these are placed on a sound footing as depicted in Figure 1.

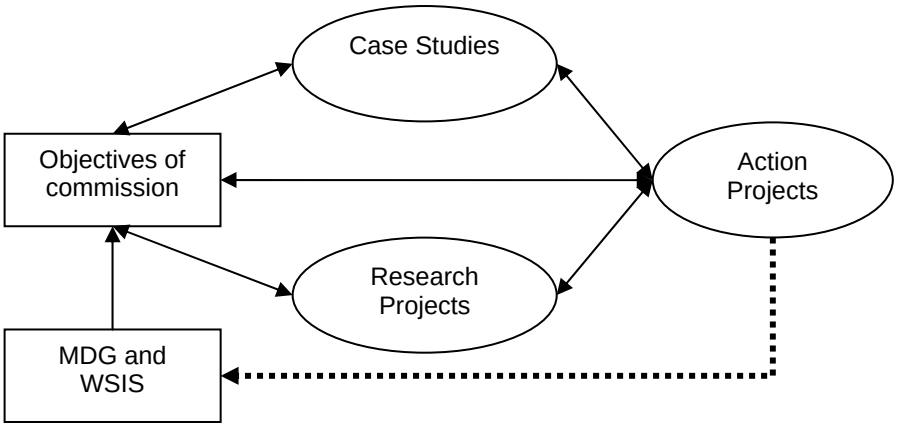

Figure 1: Support for action projects

Research projects

Research project 1: Researching the digital divide civil society in Africa

One of the major problems facing any change project is to have a legitimate and broad basis for developing dialogue, consensus and action. This implies that one knows:

- who are the key actors (institutions and individuals)
- how to engage them
- where resources are available
- what structures/institutions exist (or are necessary) to mobilize actors and resources
- And so forth

This project will answer these questions. In order to answer these questions a research project will be launched. The project will culminate in a workshop on the digital divide civil society in Africa (and possibly Latin America) where key stakeholders will be represented.

The project will consist of the following phases:

Phase 1: Collecting information
In this phase information will be collected starting with a number of known stakeholders such as:

- UN African Economic Commission
- New Partnership for Africa's Development (NEPAD)
- The Southern African Development Community (SADC)
- Bridges.org
- Global Alliance for ICT Policy and Development
- UNDP
- UN ICT Task Force
- The Digital Diaspora Network (Digital Bridge Africa**)**
- Digital Partners
- Connectivity Africa
- Open Knowledge Network

- Digital Divide Network

The methodology for collecting the information would be to contact each of these organizations with the intention to:

- Identify other relevant stakeholders
- Collect information about existing projects or initiatives
- Collect information about existing resources
- Identify key issues that will enable/constrain the development of a online collaborative community

The process of collecting data will continue until no new information emerges

Phase 2: Analysis of information

In this phase the data collected will be organized and analyzed in order to develop a map of all the major actors involved in bridging digital divide in Africa as well as a map of all the relevant issues in this regard. The analysis will produce a draft document that will serve as a database as well as input to the action project

Phase 3: The production and dissemination of output

In this phase the project will involve the following:

a) A workshop where the draft document will be discussed and where the major actors can be mobilized for the action project
b) The creation of a website (with a online database) in which institutions and project can be registered and where relevant information can be disseminated
c) The creation of a report that can become the basis for seeking funding for the action project

Research Project 2: Preservation and Development of Indigenous Knowledge through ICT

There have been major efforts by multilateral organization on issues of indigenous knowledge (IK) and development, for example, in 1998 World Bank published a framework for action on IK focusing on information dissemination, facilitation of exchange of IK among developing countries communities, application of IK in the development process and building partnership. There is a consensus about the relevance and importance of IK in development with most initiatives emerging around the World Bank framework highlighted above. The emphasis up to now has been on social cultural description of IK and awareness about the importance of IK. Some of these initiatives led to the establishment of resource center for IK in some regions of the world e.g. African Resource center on indigenous knowledge (ARCIK), etc. However, there are relatively few resources that employ the capability of ICT in preservation of indigenous knowledge and there is only a limited understanding of the influence of digital archives and electronic libraries in the implementation of the framework for action on IK. This project will examine these issues in more details. Specifically, this project will attempt to answer the following questions

- What are the available IK resources that can be digitized?
- What are the existing ways of IK preservations, sharing, development and transfer across generations
- What is the role of ICT in IK development and transfer over generation?
- How does IK interact with other knowledge, and what role might ICT play in fostering such interactions?
- How could ICT enable indigenous knowledge and hybrid knowledge for development?
- Is digital archive and forums an effective way to preserve, develop and share IK?
- What is the role of National Libraries in Africa in digitization of IK?

- What is the appropriateness of a digital archive or forum of IK to a rural audience? Which individuals/groups might be able to act as intermediaries?
- What are the ethical implications of digitizing IK? How can normative issues be dealt with (for example in deciding what counts as *knowledge* rather than practice, belief)?

The project will take the existing research into consideration and we will specifically focus on the digital archives, electronic libraries and interactive knowledge forums, starting with the materials and resources available in the existing centers.

For data collection, contacts will be made with the centers for indigenous knowledge that falls in the region of our initial focus (see http://www.unesco.org/most/bpiklist.htm for list of possible centers). We will require information that can provide answers to some of the questions listed above using multiple methodologies that might be most appropriate. The information gathered will be interpreted and triangulated with other sources of information to formulate an action project.

The intermediate reports based on the input from the centers and secondary sources will be published in relevant channels. The component of a digital archive will also be agreed upon in a meeting /forum by major stakeholders (primarily the existing centers). Local knowledge needs will form part of the discussions and the archive or other ICT proposal will incorporate mechanisms for using IK and knowledge processes to meet these needs, possibly in combination with hybrid and non-indigenous knowledge. There will thus be an *explicit developmental component* in the project as well as an archiving component. This prototype could form the basis of the future work subjected for funds availability (we will use our findings to justify our request for funds from national governments and donor/funding agencies).

Research Project 3: Researching the problem of cybercrime and the major challenges for socio-economic development in Africa

Much work has been done on cybercrime especially in the advanced economies, and different countries including the UK and the USA have congressional acts and parliamentary directives specifically devoted to it. For example in the USA, the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003 (CAN-SPAM Act) came into effect on January 1, 2004. The European parliament on 20 May 1997 issued Directive 97/7/EC that deals primarily with issues of unauthorized mails between its member countries and several EU countries have adopted a version of this directive. In developing countries, especially in Africa, such laws, which arise as a result of a prior investigation of the nature of the problem of cybercrime and its implications for e-commerce, are not present. This phase of the project will, therefore, be devoted to gaining a thorough understanding of the nature of cybercrime in Africa. More specifically this project will attempt to study:

- who are the key actors (perpetrators and victims)
- how to engage them (tracing and identifying the Spammer)
- what resources are available especially expertise to investigate and prosecute cybercrime
- what structures and laws currently exist that can be adapted to tackle cybercrime (nationally and within regional bodies like ECOWAS, SADC etc)
- what institutions/structures are necessary to tackle cybercrime (Laws and Acts of Parliament and the development of a cybercrime database)
- how to develop a legal framework for the enforcement of laws and Acts and the prosecution of those involved in cybercrime

This project will provide answers to these questions. To instantiate this, a research project will be launched at the regional level within the identified regional sectors discussed above. This will

culminate in a continent-wide stakeholder meeting on cybercrime, its implications for socio-economic development and approaches to tackling the problem in Africa.

The project will consist of the following phases:

Phase 1: Collecting information
In this phase information will be collected starting with a number of known stakeholders such as:

- Local and international Internet Service Providers (ISPs)
- Local and international Email Service Providers (ESPs)
- Local and international cybercrime fighting organizations
- Local and international law enforcement agencies
- Local and international legal practitioners with anti-cybercrime litigation experience
- National government agencies on cybercrime in Africa
- National government agencies on cybercrime in Europe and the USA
- AU parliamentary committees on e-commerce (or similar)
- Academics and researchers on cybercrime, computer network security etc
- Private corporate entities such as Banks
- General public

Information-gathering techniques will include contacting each of these organizations with the intention to:

- Identify other relevant stakeholders
- Collect information about existing projects or initiatives
- Collect information about existing resources
- Identify key issues that will enable/constrain the building of an international coalition against cybercrime (in particular SPAM)

The process of collecting data will continue until no new information emerges

Phase 2: Analysis of information
In this phase the data collected will be organized and analyzed in order to develop a map of all the major actors involved in fighting cybercrime in Africa as well as a map of all the relevant issues identified. The analysis will produce a draft document that will serve as an input to the action project.

Phase 3: The production and dissemination of output
Phase 3 of this project will involve the following:

d) A workshop where the draft document will be discussed and where the major actors can be mobilized for the action project.
e) The creation of a website (with an online database) where relevant information on cybercrime can be disseminated
f) The creation of a report that can become the basis for seeking funding for the action project below

Action projects

Action Project 1: Building a collaborative online community directed at bridging the digital divide in Africa (CoComBridge)

The aim of this project is to facilitate the creation of a collaborative online community to bring to together all civil society stakeholders and initiatives directed at bridging the digital divide in Africa. This project will be in pursuit of the MDG to "develop a global partnership for

development" Thus, the purpose of the project is to first and foremostly address the digital divide between those in Africa who are working to bridge the digital divide (a bridge in order to bridge). Ultimately this community will create the infrastructure and framework to effectively participate in the global network of communities focused on IT and development. The online community will function to create a forum for:

a) Developing joint digital divide initiatives
b) To share case studies and best practices
c) To develop common policy frameworks
d) To develop joint resources such as a online library of digital documents

The success of this project would be an active virtual community of relevant actors that coordinates, collaborates and action projects towards bridging the digital divide in and between Africa and the rest of the Information Society.

The project will attempt to learn from cases such as MISTICA and not reinvent the knowledge available and required to achieve its aims.

The project will consist of the following phases:

Phase 1: The identification of the principle participants and the preparation of a regional meeting with associated information and communication resources. The objective of the meeting would be the production of a document to orient the project and establish an initial steering group to guide the development of the project. This phase will draw heavily on the output of project 1.1.

Phase 2: A regional meeting of approximately 25-30 regional actors. The regional meeting will start the process of the collaborative development of the principle structure, management, infrastructure and support of the online community. The online community will evolve as the first collaborative product of the assembled actors.

Phase 3: The creation of the ICT infrastructure (the bridge) to enable a human network of social actors supported by the experimentation with a series of pilot applications. A number of areas of functionality are envisaged such as:

a) Online database of actors, projects, funding agencies, etc
b) A virtual community infrastructure consisting of:
    - A mailing list
    - A discussion board
    - A meeting space
    - A resource library
    - An administrative and support infrastructure
c) A publicly available library of resources accumulated and generated by the virtual community

Phase 4: The evaluation and dissemination of the project on an annual basis.

It is also hoped that the online community will be involved in providing input to initiatives such as WISIS and to attract funding for a number of pilot projects to be launched and coordinated by CoCombridge.

Action Project 2: Development and Implementation of Digital Online Network and Forum for Indigenous Knowledge (IKNET)

The aim of this project is to create an Internet based digital network for the preservation, development and dissemination of African indigenous knowledge (IK). The purpose of the digital network would be to bring together existing digital resources and to implement specific community based projects to record and promote indigenous knowledge (languages, narratives, rituals, artifacts, etc). The digital network will then provide the infrastructure to preserve, disseminate and protect this indigenous knowledge and to support indigenous knowledge processes. The project will be community driven and will initially focus on existing resources and on indigenous *cultural* knowledge that is easy to record and catalogue with minimal technology, such as aboriginal narratives. The project will collaborate with existing initiatives elsewhere such as the 'FirstVoices' project in Canada http://www.firstvoices.ca/

The project will aim to design and implement a digital online infrastructure and forum for indigenous knowledge (IK) preservation, development and use. While this project will be similar to the FirstVoices, it will be extended beyond language archives to other indigenous knowledge. Other indigenous knowledge to be included will be determined from the findings from the research aspect of this project but it is considered important that it should relate to urgent development issues, showing the practical significance as well as the cultural value of IK.

The principle philosophy of this project will be a decentralized network that will be driven by decentralized content providers and users. One could describe it as an internet of indigenous knowledge (IKNET) within the world wide web. This means that the project must focus it efforts on developing tools and standards that will enable and facilitate the portation of exiting IK to a digital form so that it can be shared and further developed while using as much of the exiting internet technology as possible. An essential part of this would be the development of various portals as well as search engine technology that will make it possible for users to find objects that might be very diverse (text, video, sound, etc). It might even make sense to register a new high level domain name suck as .ik to facilitate the process—this would lead to domain names such as www.providername.ik.uk. It is also vital that the exiting information technology infrastructure can be used to facilitate the building of the IKNET

More details about the procedures for this aspect of the project will be provided as the project progress.

Action Project 3: Building a regional policy framework and capacity for controlling cybercrime (with particular emphasis on SPAM)

The aim of this project is to study the problem of cybercrime in developing countries and produce resources to deal with it effectively. This will include a policy framework, the harmonization of a legal framework, capacity building in investigating and prosecuting cybercrime, and so forth. One example of this problem is SPAM. SPAM is defined as the unsolicited E-Mailing of any message, often with the intent to deceive the recipient as to the origin of the message. It is widely acknowledged that one of the biggest problems facing the World Wide Web (and it potential for socio-economic development) is the huge volumes of spam that are consuming network resources at the expense of legitimate traffic. One of the problems in controlling spam is that there is no internationally accepted policy and legal framework for dealing with spam. Attempts by countries in Europe and the USA to deal with spam have made developing countries targets for spammers. Many of these now operate out of these countries to avoid prosecution. The project will also develop a policy framework and guidelines for adoption by developing countries. The project will aim to build an international coalition of developing countries (initially in Africa) against spam with the intent to harmonize international agreements and law as well as building capacity in the investigation and prosecution of cybercrime

The project will aim to build a regional coalition against cybercrime with the intent to harmonize both regional and international agreements and laws. The outcome of the project would be a multi-layered policy framework and capacity building initiatives for dealing with cybercrime. The layers of this framework will include:

a) Political - a regional anti-cybercrime legislation or Law and methods of enforcement
b) Social – Conducting public education/awareness campaigns to publicize cybercrime and its effects; develop guidelines for, and educate, owners of cyber cafes and business centers used by spammers to create and send mails
c) Economic – developing a reward system to improve enforcement of the law or acts; identifying potential informants who could identify those who violate anti-cybercrime laws; determining incentives that can likely influence potential informants decision to high-quality information
d) Technical – Preventive technical controls; Detective technical controls; Corrective technical controls (i.e. developing a cybercrime database where victims can forward emails; developing a website for the collection of information on cybercrime)
e) Organizational – Establishing multi regional agencies or taskforces to tackle cybercrime and developing technical expertise to investigate and prosecute cybercrime.

The project will attempt to learn from examples of dealing with Cybercrime in Europe and the USA and incorporate such knowledge into the current project.

6. Expected outcomes

6.1. Outcomes for Project 1

- An active collaborative online community
- An online database of actors, projects, funding agencies, etc
- A virtual community infrastructure consisting of:
    - A mailing list
    - A discussion board
    - A meeting space
    - A resource library
    - An administrative and support infrastructure
- A publicly available library of resources accumulated and generated by the virtual community

6.2. Outcomes for Project 2

An Internet based digital network for the preservation, development and dissemination of African indigenous knowledge. This will include:

- Network coordinator that will promote content and facilitate development of the IKNET
- Local content coordinators (and domain server managers)
- Local content creators (with skills and technology to achieve objectives)
- Search technology to locate content

6.3. Outcomes for Project 3

- A detailed understanding of the nature Cybercrime
- Development of appropriate legislation to tackle Cybercrime
- Fostering co-operation between: (a) National governments and private industry (2) National governmental agencies

- A framework comprising of legal/political, social, economic, technical and organizational measures to tackle Cybercrime