

RWENZORI INFORMATION CENTRES' NETWORK



Email: rwericnet@yahoo.com

Tel: 077607149 or 0772394839

1. Why RIC-NET - Underlying rationale.

Information is an essential ingredient of any successful human endeavour and its lack is a fundamental cause of much of the suffering of rural communities in Uganda. Reliable information about such basics as: weather, disease control in humans as well as animal and plants, politics, markets for farmers produce, human rights issues, business opportunities and even conflict situations and how to handle them are all hardly available leaving the rural communities extremely dis-empowered and very vulnerable to misinformation and avoidable misfortune.

Reliable information is however hard to provide to people who are often illiterate, poor and prone to rely on traditional and often poor information sources. RIC-NET members have spent the last two years analyzing how to overcome these hurdles for the benefit of the rural communities in the Rwenzori region.

RIC-NET now believes that:

- Rural communities information needs can be largely met by sharing local reliable information but this should be supplemented with useful and relevant information from beyond.
- Dissemination of information must be packaged and relayed so it can reach the majority of the population in a way that is understandable and useful to them.
- Appropriate ICT is a valuable means to collect and disseminate information.
- Reliable information can only be collected and disseminated when it is owned, sustained and controlled by a wide section of the local communities themselves.

2. Background of Rwenzori Region Information Center Network (RIC-NET).

RIC-NET is an indigenous Network of organized groups made up of local CBO's/NGOs who either have, or wish to start, information centers serving their counties comprising of approximately 200,000 people, within the Rwenzori region.

RIC-NET has a holistic approach to development that recognise the provision of information as essential need towards the transformation of social, political and economic spheres of particularly rural communities.

The network has adopted an approach that involves the local communities in identifying their information needs, designing strategies that use ICT to meet the needs, and self-monitoring leading to improved methodologies. This participatory approach empowers the individuals in their organizations and at community level to take responsibility for the development of their own information centers, leading to a more relevant, sustainable and cost effective approach to the provision of information.

RIC-NET strives to stimulate and support the information centers by being a forum for: interchange of information and ideas; in liaising with external agencies that can provide resources, especially informational and training; and, in the future for technical and programming support.

An Indigenous NGO, Kabarole Research and Resource Center (KRC), has stimulated and supported the establishment of RIC-NET after it facilitated an “Open Space” session involving more than 120 representatives of CSOs and Government agencies in the Rwenzori region, which considered the lack of relevant and reliable information as the greatest constraint to development in the region.

3. Mission and Objectives of RIC-NET

➤ **Societal Vision:**

A community equitably served with information through use of ICT for sustainable a rural development.

➤ **Mission:**

To establish and support community information centers that enhance timely information sharing that is vital to the development of grass root communities.

➤ **Objectives:**

- i. To facilitate delivery of timely and appropriate information & skills especially to the rural communities in the region through a network of Information Center.
- ii. To offer information centers with technical expertise and training facilities.
- iii. To enhance the marginalized groups involvement in the development process through information sharing, lobbying and advocacy so as improving their quality of life.
- iv. To link-up established information centers in Rwenzori region with other institutions, NGO’S and government agencies mainstreaming use ICT for a better sustainable livelihood.
- v. To enhance community initiatives for information, skills & technologies sharing and exchanges.
- vi. To fundraise and acquire property for the purpose of fulfilling the aims and objectives of RIC-NET.
- vii. To carry out any other lawful and gainful activities as shall be deemed necessary for the purpose of fulfilling the objectives of RIC-NET.

4. Structure of RIC-NET.

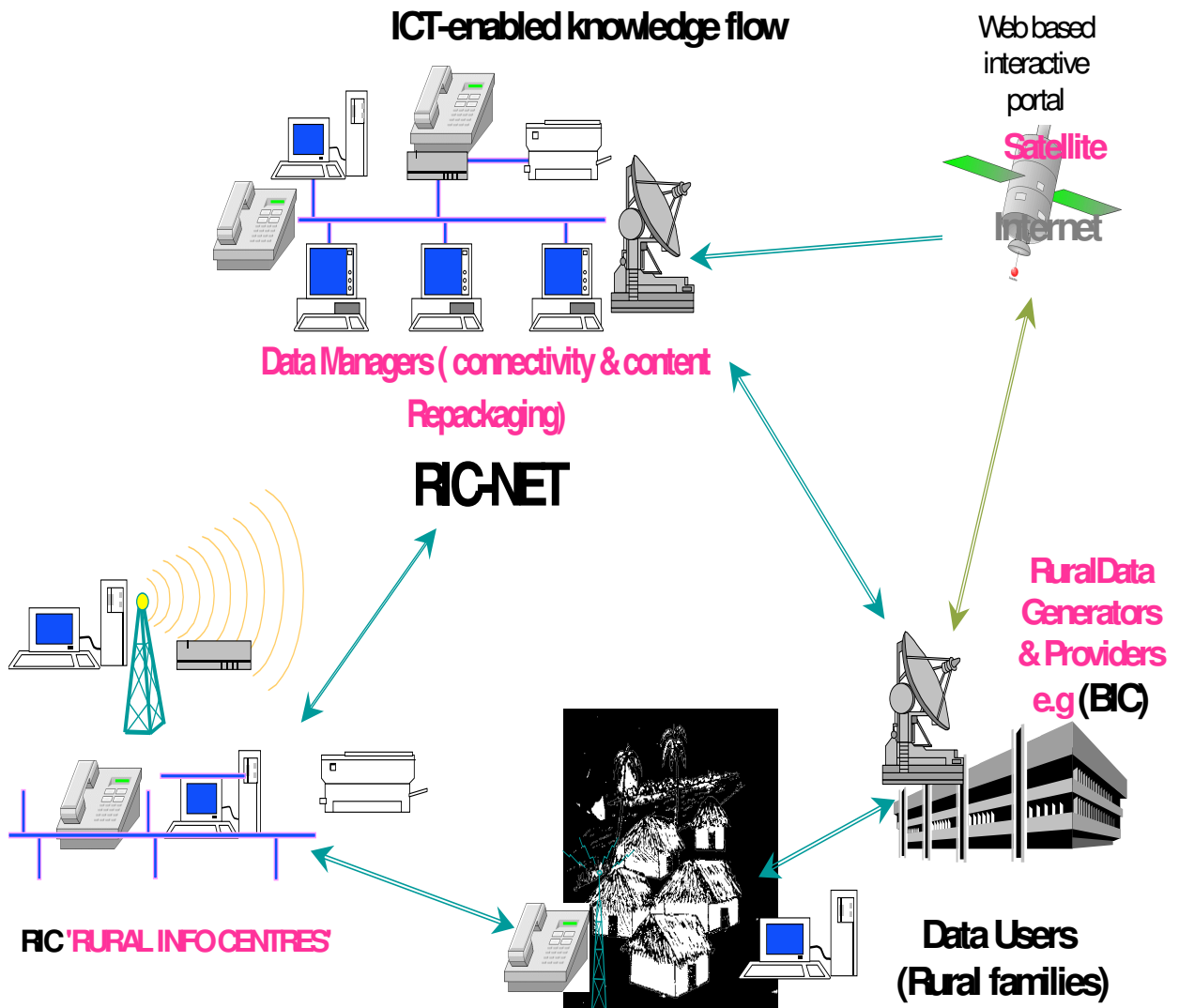
RIC-NET has three categories of membership all of whom shall maintain their autonomy.

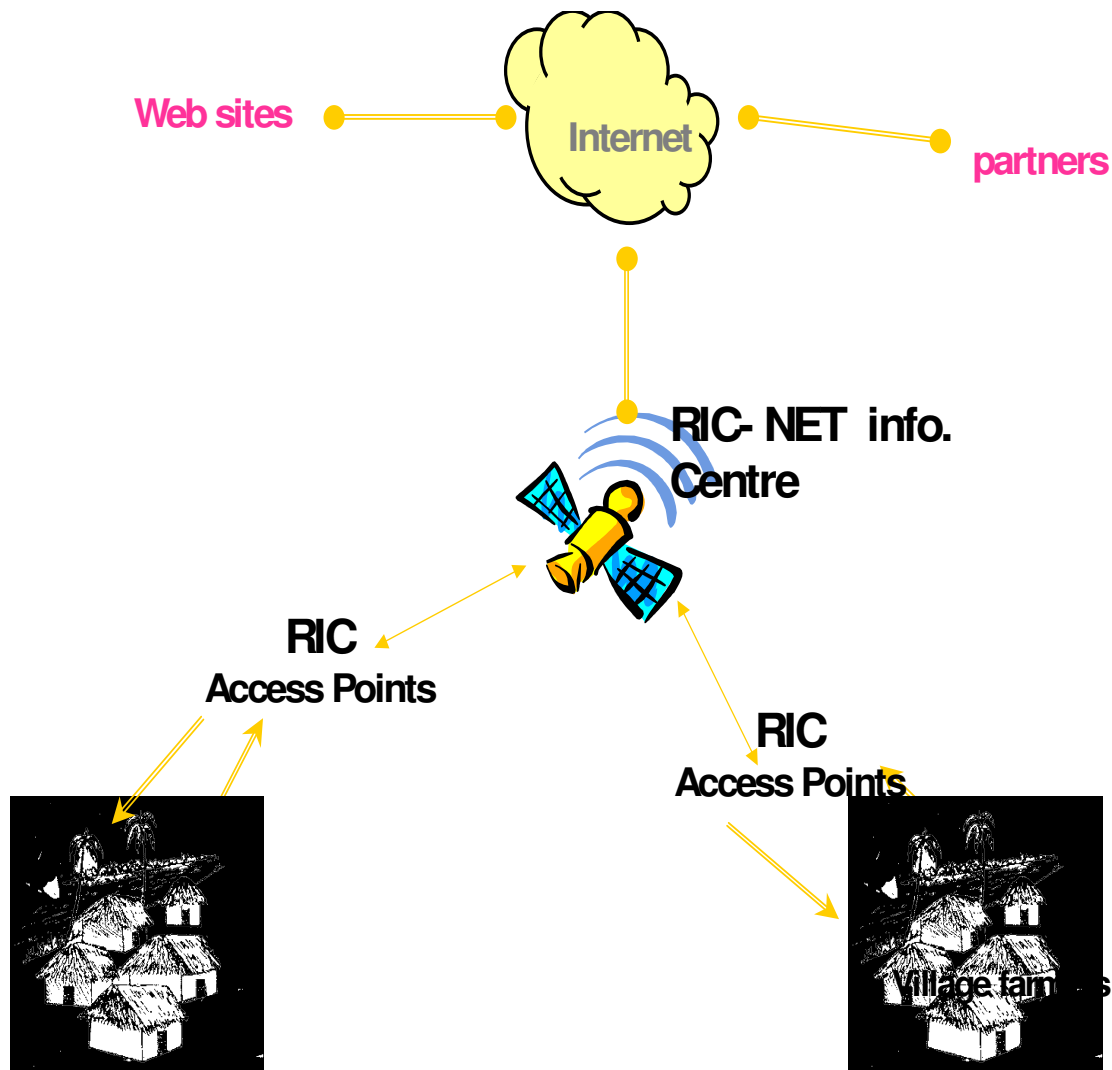
- i. Full members: Under this category, membership shall be limited to Information Centers that are owned by registered CSOs working in Rwenzori region.
 - ii. Associate Members: This category is open to other information centers, NGO’s, Government departments and Institutions that promote information sharing for community development in Uganda.
 - iii. Honorary Members. Conferred on an individual, former RIC-NET Executive Committee member, former RIC-NET volunteer, a partner NGO’s or institutions.
- Since November 2005 RIC-NET has an Executive Committee and Secretariat currently filled by a Liaison Officer, which meets regularly to formulate policies,

design work plans and implement actions. RIC-NET has a recognized constitution that governs it with clear articles and policies. It is registered in Kabarole District (NGO) Reg. No: CD/CBO/07B and has opened up a savings bank account with Centenary Rural Development bank A/C No: **5520315060** Fort Portal branch as Rwenzori Information Center Network (RIC-NET).

5. Model of Rural Information Sharing.

MODEL OF RURAL INFORMATION SHARING





Rwenzori information centers network operates under a very interesting phenomenon as demonstrated by the diagram above and an explanation below.

Information need survey exercise is conducted by the central Hub (Network) through its differently dispersed centers within the five Districts of the region where the rural community's needs are clearly observed & understood by the centers which through using different ICT communicate these needs to the main hub (Network) that take a role of sourcing information through different medium such as websites/internet, different television/radio stations, institutions & strong partners/stake holders with different expertise.

The hub also takes role in repackaging and disseminating relevant information towards addressing these needs in the modules that fully satisfy the different centers in the region.

At the center level, this information is further refined including translation to the different local languages and information is taken to rural information points (deep into the rural villages) in different formats that include videos, notice boards, manuals and local news letters and through our well trained and committed volunteers, information users e.g. Farmers are guided on how to effectively turn this information/knowledge into recognized/result oriented performance.

RIC-NETS PERCEPTION ON ICTS TOWARDS DEVELOPMENT & ESTABLISHMENT OF INFORMATION CENTERS:

Information and Communication Technologies (ICT) have the potential to change new and old forms of economic activity. This can result in e-literate groups low skilled or low paid workers, unemployed people, sole parents, and those with disabilities that do not have access to ICT. However, it is likely therefore that assisting people to improve their access to and skills in ICT will be an important means for growing an inclusive, innovative community/economy for the benefit of a country. Therefore the Network (ICT-Hub) model or mechanism for integrated service delivery to rural communities should be applied for this purpose.

An Network(ICT-Hub) (center net work e.g. RIC-NET) can be seen as sustainable physical centres with the necessary infrastructure to provide generic services like telecentres, desktop publishing, business support, application development, training and information services to the community. Communities and locations with poor Internet availability are likely to be considered less favorable places for economic investments, thereby limiting enterprise development and job creation and restricting the growth of RIC-NET currently seen as a key driver of community economic growth in the region. Network (ICT-Hub) provides a structure, which enables communities to manage their own development, by providing access to appropriate information, facilities, resources, training and services.

INTRODUCTION

Development of the local community in rural areas of the Rwenzori region, and Uganda in general, is severely compromised by the lack of infrastructure, services and know-how. This is especially the case for enabling technologies in the Information and Communication arena.

As RIC-NET we are living through this revolution, which brings together people from different environments through our established information center net works. In these circumstances, people may learn from one another, but they also need basic access to and understanding of information and communication technology (ICT). Not only do people need to understand the rapid evolution of new ICTs, they also need to keep pace with the rapid changes imposed on the social structure at work, at home, in the classroom and in the entertainment field. It is indeed necessary to shape the Rwenzori region information society by harnessing the key information and communication technologies and skills required for the socio-economic development of the community. This understanding

needs to take shape within the context of the realities of the region in terms of information literacy. Interfaces between technology and society will need to be different, as levels of understanding may be very different from those that occur in other parts of the world.

ICT can be regarded as both a driver and an enabler., ICT is treated as an enabler - influencing how things are done - but this focus area considers the aspects of ICT as the driving force for current or future change.

Rwenzori region needs to be part of the information society through our evenly distributed information centers and our informational website to be nationally and globally competitive regarding community development, play the rightful role in the region and benefit individuals. Part of this initiative is access to information and awareness of the possibilities of the effective use of ICT. Broader online literacy is required, as ICT is becoming a popular service delivery channel increasingly used by the private and government sectors, business and financial sectors. It is important to address the growing functional illiteracy that dis-empowers people from living effectively in a modern society, by taking away people's fears of ICT

In many respects, RIC-NET can at best be a fast follower in this region of technology by presenting the development model for successful implementation of ICT in a rural community (BIC) and to make recommendations to the community centre for better

sustainability. For this purpose the concept of a community centre first has to be explained and analyzed.

In the Rwenzori region, RIC-NETs own established community rural service information centers are playing a major role in educating and disseminating development information to a spread of communities with in the region. Historically, community centers have been meeting places for youth and many other community activities organized in community halls, and schools that had less access to relevant information

RIC-NET community centers serve a variety of needs to the community as well as meeting points such as telecommunication, net worked computers that play a big role in facilitating the activities and extending access to wider range of information to the community. (E.g. health, agriculture, tourism and education).

Considering the above stated information; RIC-NET (Network(ICT-Hub)s or centers) therefore provides a structure that enables communities to manage their own development, by providing access to appropriate information, facilities, resources, training and services. However, in order to describe the Network (ICT-Hub), is it important to formulate a definition of a Network (ICT-Hub) as summarized below.

"A Network (ICT-Hub) is a sustainable physical centre with the necessary infrastructure to provide generic services like development information, tele-centres, desktop publishing, business support, training and availing developmental information to the

community and support through the use of Information and Communication Technologies"

The focus of the RIC-NET Network (ICT-Hub) & (Information centers such as BIC) was intended therefore to address the problems related to ICT in a community such as:-

- Insufficient telecommunications services particularly in areas of lower population density;
- A basic lack of knowledge regarding the benefits of ICT among certain groups;
- lack of skills to utilize ICT to best effect in a community;
- An inability to afford the costs of access to equipment and the network;
- For telecommunications to be most effective communities must identify first how they could use ICT and generate markets for goods and services which ICT would enable them to produce;
- Lack of awareness or understanding of the potential of the Internet to improve personal and economic well-being of a community;
- Insufficient Training and professional development in ICT Skills for Education Professionals and Community Advisors;
- Inadequacy of technical infrastructure in rural locations;
- Lack of new product developments in a community.

These are some of the problems experienced in communities where ICT could play a major role in the economic growth of an area. The Network (ICT-Hub) Model aims to address most of these issues by identifying services and functions needed by communities. Needs in every community differ and therefore the functions and services will differ from community to community. This Network (ICT-Hub) model is developed from a practical implementation point of view. (Universal Service Agency, 1998 & 1999), regarding Community Centers, as reference for planning the set-up of a centre. But the Network (ICT-Hub) focus on a logic flow of events in order to assist a project manager with the planning and implementation of such a centre(s) based on previous experience and research. Proper planning of the various aspects of the Network(ICT-Hub) before hand, as discussed in this section, before embarking on the process of creating expectations in a particular community regarding their perceived needs and expectations.

The implementation of a Network (ICT-Hub) must be seen as a process to empower and grow a community to its full potential by identifying and utilizing the local resources to achieve the community common goal and vision, and not a once off event of technology dump and go. The Network (ICT-Hub) can serve as information and communication learning centre for farmers, students, professionals, and entrepreneurs, NGOs, community leaders and other members of the community, including disabled people. Although it is advisable for a Network (ICT-Hub) to develop an initial focus, it is more than likely that the Network (ICT-Hub) expands as the focus area may change or broaden. It is important not to try and accommodate every need or interest of the community at first, but to leave room to respond once usage patterns emerge and active participant needs can be identified. The Network (ICT-Hub) solution is based on existing service ability and therefore an existing Community Centre can be transformed into a Network (ICT-Hub) where the focus will be more on ICT for the community it serves.

Identify Key Services or Functions with sustainability concept in mind.

An important starting point to set-up a Network (ICT-Hub) is to identify and list the key functions and services that this centre must be able to fulfill in regard to the needs of the area. Therefore, provide in the needs of the targeted customers (community). A functional requirement or analysis of such a centre should be compiled.

In order to determine the type of services that are needed by the community, it is important to identify the potential **Target Groups** (e.g. schools, youth, farmers, women groups, rural poor etc.) in the area and match them to the services they require.

The Network (ICT-Hub) is likely to focus on a few priority sectors at first and then expand its focus as it develops. A good liaisons officer will always have his or her finger on the pulse of the community and be looking out for new target groups or activities that require the Network (ICT-Hub) services.

Some of these services are telephone calls, e-mail and Internet access, word processing, desktop publishing, computer use, education and training, binding, laminating, scanning, consultancy etc. The information on the services that such a centre must deliver to their customers, determine the equipment requirements to offering these services. Once the services are identified for a specific community centre, the services can be grouped into key operational components for a Centre.

Identify Key Operational Components

The defined key services and functions of a Network (ICT-Hub) can be use to identify the operational components in order to create an operational model for the Network (ICT-Hub) to be deployed.

Each of the operational components of the Network (ICT-Hub) has specific service groups under an operational component. Therefore, each major component provides a range of services to the community at a fee. Identifying the service needs and operational components will assist in determining the centre infrastructure and human resource requirements in order to operate the Network (ICT-Hub) sustainably and create job opportunities within the community it serves. A summary of the types of services within each component are given below:

Tele-centre Services (Telecommunication and Internet services):

- Make and receive telephone calls
- Send and receive faxes.
- Send and receive e-mail
- Get on the Internet
- Faxing services

DTP Services (Desk top publishing designing and copying services):

- Typing
- Preparing professional CV's for job seekers.
- Copying and Creating business cards and letterheads.
- Designing Newsletters, brochures, pamphlets and advertising material for small businesses and making copies for distribution.
- Designing and photocopying community notices like funerals and weddings.
- Assisting schools with photocopying, reports and question papers.

Training Services (Various types of training):

- Computer training, including operating systems, word processing, spreadsheets and databases.
- Business training; including marketing, business planning, pricing and costing.
- Project management training for community projects and SMEs.
- Financial management of community organizations and SMEs.

Business Support Services (Providing professional business support services):

- Assistance with conducting viability studies, environmental scans and competition analysis.
- Generating professional business plans.
- Assistance with compiling funding and financing proposals.
- Tender advice and assistance with responding to regional, District and local (sub county) tenders.
- Financial management advice.
- Assistance with implementation and maintenance of businesses through a system of aftercare, mentoring and ongoing support.

After key components one will also have to identify infrastructure needs.

Identify Infrastructure Needs (Technology)

Since the operational components of the Network (ICT-Hub) are established, the necessary physical infrastructure can be determined by analyzing the service needs of the community.

The start-up costs of a Network (ICT-Hub) in terms of hardware equipment and capital investments should be minimized. It is not always necessary to purchase new equipment for the start-up of a Network (ICT-Hub), although it would be ideal, in this regard only basic infrastructure or technology needs are explained.

1: Hardware and Equipment:

A Network (ICT-Hub) can in the beginning make use of second-hand computers, telephone systems, photocopiers, printers and furniture from various organizations (Just like how Kabarole Research & Resource center has donated such equipment to most organizations in the region). However, new computer equipment will be the ideal in order to reduce the support during the implementation phase of an Network (ICT-Hub). Regardless of whether new or second hand equipment is used initially, it is important to develop a good working relationship with a reliable supplier of computer equipment and software.

- **Computer System:** A Network (ICT-Hub) should start out with between three to five computers which can be linked with a standard Co-axial Ethernet cable or with a small 8-port hub at low cost. One machine will normally be a dedicated administration computer that is only used by the ICTO and other Network (ICT-Hub) staff at the point of sale. If possible, at least four machines should be provided for Network (ICT-Hub) users. When it becomes necessary to increase the number of Computers at the Network (ICT-Hub) to accommodate more users, low-cost options for expansion should be explored rather than investing in brand new Computers. For example, it may be possible to add some older, recycled Computers. Companies that are upgrading their equipment may donate their old computer equipment to a Network (ICT-Hub).
- **Printers:** A Network (ICT-Hub) ideally should have one printer for every 5 to 10 computer systems, all linked together over the LAN (Local Area Network). However a small or start-up Network (ICT-Hub) will operate with a printer attached to a single PC. There are a wide variety of different printers to choose from, and the choice will depend on the type of printing that the customers in the community want. An operational component of the Network (ICT-Hub) is desktop publishing work for their local communities. This type of work needs printers that are able to produce commercial, professional-looking jobs. The old

dot-matrix printer is not suitable for the Network (ICT-Hub), because the quality is too low.

- **Telephone Systems:** Generally, a Network (ICT-Hub) will aim to have at least three lines to start with - a voice line, a fax line, and a modem connection for the PC. If the Network (ICT-Hub) is small and phone services are not a big part of the planned operation, then it is possible to start out by sharing a single phone line for all services (voice, fax and Internet). This will not allow simultaneous use by all three and the phone line will have to be carefully shared. It is possible for 5 to 10 PCs to share the same phone line for simultaneous Internet access. E-mail can be provided off-line via the batched UUCP service, and the phone line need only be used for short periods to send and receive the mail. To enable the Network (ICT-Hub) operators to have control over the telephone bill, it is recommended that a pre-paid system be installed for better-cost control from the start. This will avoid the cut-off of telephone lines by the local telecommunication service provider due to late or no payments, as well as continuous service delivery to the community.
- **Internet Access System:** A modem is essential for Internet/data communications. It is the piece of equipment that enables the computer to send and receive data over telephone lines, and to communicate with Internet Service Providers to provide access to the Internet. Although many computers today have internal modems, it is better to buy external modems because of the rapid changes in modem technology. Internal modems have the constraints of operating at higher temperatures and can suffer more damage from lightning and power surges. With the telephone line plugged into a PC with an internal modem, a lightning strike can easily damage your computer. The term *peripheral* refers to all the equipment that is not part of the basic computer system package for the Network (ICT-Hub). However, it forms part of the equipment to enable the Network (ICT-Hub) to provide an integrated service delivery to the community.
- **Photocopier:** A photocopier is essential for the daily running of a Network (ICT-Hub) as photocopying facilities are generally in demand. If a second-hand photocopier is bought or one is donated, make sure that the quality of copies is good enough for customers and that it can be serviced and maintained. It is not advisable to buy a very expensive photocopier to begin with. A photocopier that collates, staples and produces double-sided copies is wonderful to have, but not essential. An integrated 4-in-1 fax/photocopier/printer/scanner can be used for low-volume copying (1-10 copies) and a separate high-volume photocopier can be used for larger runs. It is important to decide whether the Network (ICT-Hub) should lease/rent or buy the photocopy equipment. Because of the high maintenance costs, renting or leasing may be the best option.
- **Binding Machine:** If there is a demand for large quantities of copying and print production work, a binding machine will be useful and can generate additional

income. There are different types of binding machines to choose from, depending on the size of documents to be bound and the kind of binding used.

- **CD-Writer:** A Network (ICT-Hub) can distribute photo-albums, videos and music on CD-ROM, make back-ups, distribute web sites, save other databases and make copies of CD-ROMs. Cultural records of the community and newsworthy events can be recorded and stored in this way for future use. It is important to educate the Network (ICT-Hub) operators in the responsible usage of the device in order to prevent legal action from for instance software companies.
- **Scanner:** Flatbed scanners are the most popular. As with photocopiers, the material you want to scan is placed flat on a glass plate. Hand-held scanners cannot be used effectively for books or publications. The software for manipulating and editing scanned images is usually provided with the scanner.
- **Digital Camera:** A digital camera has become a popular item at a Network (ICT-Hub) as pictures can be transferred into documents or e-mail messages at no cost - the pictures are simply copied from the camera to the computer. A digital camera is particularly useful for a Network (ICT-Hub) servicing the needs of the local community; international travellers or visitors can easily generate additional income with a digital camera.
- **Laminator:** Laminators allow printouts to be preserved by covering them with a thin film of transparent plastic. There is a wide variety of sizes, shapes and prices. Where the community has indicated a demand for laminating services, it is important to be clear about the kinds of documents the Network (ICT-Hub) will be asked to laminate. For example, will documents primarily be A4 certificates or A3 posters?

2: Software Needs:

There will always be new software on the market making the appropriate software selection process difficult. Therefore the Network (ICT-Hub) will make use of commercial office application suites for example Microsoft Office for word-processing, spreadsheets, etc.

- **Introductory on-screen tours and tutorials:** Most software packages include introductory tours and tutorials, which can provide a starting point for learning how to use them.
- **Manuals and other texts:** Software packages usually come with manuals. Additional books and publications are available for the more popular software applications. Although a Network (ICT-Hub) should have a shelf of reference books and manuals, computer assisted training is more effective for new users.

- **Typing tutors:** Some users will certainly ask for a typing tutor program, which is an important addition to a Network (ICT-Hub) software collection. The best programmes give feedback and automatically provide tests, which are appropriate to the users' skills level. *Mavis Beacon* is a popular program.
- **CBT Material:** A range of multimedia training courses forms an integral part of Network (ICT-Hub) model training software collections that will give the practical skills needed to succeed in today's fast moving business world. Each course is a comprehensive and self-contained interactive learning environment that will rapidly equip the user of the Network (ICT-Hub) with a lifelong career skill. These types of courses take less than a minute to install and will run on any multimedia Computer.
- **Educational Software:** New educational software has developed more rapidly than many other software programmes, and the philosophy behind the software changes continuously. For example, in recent years there has been a shift in emphasis for educational software programmes to give learners more freedom to express their personal ideas and obtain individual feedback. In addition, an increasing amount of educational content' is delivered via the Internet, rather than as separate software that is purchased from a shop or supplier. It is important to note that these programmes should be used to supplement traditional Teaching, as learners still need the assistance of skilled teachers before they can use them effectively. It is very important for an Network (ICT-Hub) wanting to supplement educational courses, or to fill an educational gap in the community, to work together with the staff of educational institutions in the community and to find out what are the best programs to obtain.
- **Communications software:** One of the main aims of all Network (ICT-Hub) s is to provide access to the Internet. Dial-up services will be the primary means of access. Ideally, a Network (ICT-Hub) should be able to access the Internet for the cost of a local telephone call. Unfortunately, a Network (ICT-Hub) which is situated far from the nearest Internet Service Provider (ISP), may have to pay the high cost of long distance calls and this is likely to restrict use to e-mail only. A Network (ICT-Hub) should always aim to reduce operating costs so that users can pay lower prices for the services. The amount of telephone time used to transfer messages and information must be kept to a minimum. The local Internet Service Provider should provide a Network (ICT-Hub) with Internet access, E-mail and Web hosting services.

Stationery and Supplies: The basic supplies are essential for a Network (ICT-Hub) (a more detail list has been used from the region survey, therefore, for every equipment in use, there must be stock available in the Network (ICT-Hub) to prevent the interruption of the services (for example a laminator must have enough laminating pouches in stock to serve the community needs when needed).

Furniture: When introducing an Network (ICT-Hub) in a rural community, is it important to budget for the furniture needs of the Network (ICT-Hub) and not rely on using redundant furniture in the community. However, plan the furniture needs for equipment needed in the Network (ICT-Hub) to comply with the needs of the community (e.g. computer desks, chairs, cabinets and reception desk) bear in mind the reception area, computer area, office area and meeting rooms that might be required. The Network (ICT-Hub) is in the community for the community. Therefore to fulfill the furniture needs of the centre, make use of local carpenters to provide the necessary infrastructure for the Network (ICT-Hub) where possible.

Identify Application Needs

The Network (ICT-Hub) is required to identify application needs that will contribute towards the growth and development of the community and develop these needs in conjunction with the relevant institution. Some of these needs are captured and explained in the following table:

Table 1: *Application Needs for a Network (ICT-Hub)*

Application Needs	Explanation
SME	The Network (ICT-Hub) can assist small business initiatives in the community with communication, desktop publishing and business needs. It can facilitate business plan writing and funding applications.
Education	The Network (ICT-Hub) can provide distance education solutions for rural communities and training on computer aided instructions for teachers.
Health	Tele-medicine applications could be done through the infrastructure of the Network (ICT-Hub) (e-mailing health information for assistance from the specialists in referral hospitals)
Agriculture	Small-scale farmers could use the Network (ICT-Hub) as a support mechanism for their agricultural needs.
Tourism	Community Tourism could be facilitated through the Network (ICT-Hub).

Identify Content Needs

After identifying the relevant applications according to the needs of the community, the relevant content needs to be sourced, repackaged & disseminated support the selected applications in conjunction with the relevant content providers (partners) or institutions in the field of interest of the community. Some of these content needs are explained in the following table:

Table 2: *Content Needs for a Network (ICT-Hub)*

Content Needs	Explanation
SME	A Network (ICT-Hub) should strive to improve the competitiveness and growth of small business (SMEs) in the community through the supply of relevant, value-added business information.
Education	Educational content could be hosted at the Network (ICT-Hub) and the Network (ICT-Hub) can be used for supporting teachers in the community with the education process.
Health	Health content could be hosted at the Network (ICT-Hub) as a source of basic health information for the community members, especially the youth, who would be more interested in computer technology.
Agriculture	Agricultural content in form of graphics "cartoons" can be digitized and hosted at the Network (ICT-Hub) to support food, garden and farming activities in the community.
Tourism	Tourism information regarding the community could also be hosted on a server at the Network (ICT-Hub) website and the Network (ICT-Hub) can act as an advertising agency for the community resources.
Information Dissemination (i.e. Government)	The Network (ICT-Hub) can be used for the collection and dissemination of different information, e.g. Agriculture, economic growth, markets & product prices, human rights & good governance, gender and development, health, education & sports, Government information, etc. into the communities.

Identification, Monitoring and Evaluation Criteria

A continuous monitoring and evaluation action is recommended when implementing a Network (ICT-Hub) in order to measure the strengths and the areas of improvement of such a centre as well as gathering information to be disseminated through publications. The monitor and evaluation process should take the best practice characteristics identified into consideration when reporting on the progress status of such a Network (ICT-Hub) in a community.

Identify Human Resource Capacity

Network (ICT-Hub) Personnel Profiles: Different types of skills are needed to run a Network (ICT-Hub) effectively. The skills are based on three functions, which were derived from the key components identified, namely: (1) Business support, (2) Content creation and (3) Technical support. Each position is suited to a different personality profile. The personnel identified for training and implementation, need to confirm to the following general profiles:

Table 3: Personnel Profiles

Aspect	Business Support	Content Creation	Technical Support
Minimum educational qualification	Metric and tertiary qualification in business or related field	Matrix and tertiary qualification in related field	Matrix and tertiary qualification in technical or related field
Business orientation	Proven entrepreneurial and verifiable business activities in the community. Some experience in starting and maintaining a business.	Awareness of business principles and the economic conditions in the community.	Knowledge of the role and use of ICT in business and community development.
People skills	Ability to motivate and mobilize resources. Thorough knowledge of the business environment in the community. Well-spoken and presentable ability. Can speak with authority on community & business issues. Able to do presentations & demonstrations.	Ability to liaise with community leaders and members on information issues. Knowledge of the community environment and issues relating to community development.	Understanding of support and training principles. Excellent customer service skills. Problem solving, troubleshooting, and technical support experience.
Computer skills	Basic awareness.	Basic word, spreadsheet & data processing skills.	Basic competence in operating systems and productivity tools such as MS

			Office.
Language	English and local.	English and local.	English and local.
Responsibilities	Overall management of the centre. Business development. Assisting SMMEs with viability studies, business plans, financing proposals and financial management of businesses. Mentoring and aftercare of businesses.	Management of the Tele-centre and Desk Top Publishing tasks. Administration of income and expenditure. Content sourcing, formatting, data entry and distribution	First level problem solving, troubleshooting, and technical support. System maintenance, efficiency and operations. Communications management. Content creation assistance.

Network (ICT-Hub) Centre Co-coordinator Profile: Finding a good coordinator is probably the most important factor to ensure that the Network (ICT-Hub) achieves its goals. The Co-coordinator takes responsibility for the day-to-day management of the Network (ICT-Hub). He or she is usually somebody from the community, somebody who is liked and respected, and somebody who understands the community and can create the kind of atmosphere in the Network (ICT-Hub), which will make it an important asset to the community. A good coordinator will have a **vision** that incorporates his or her community and also expands beyond the community and even beyond the country. A good coordinator needs to develop a sense of the value of networking, and the value of sharing information across boundaries and borders.

The coordinator must account to the steering Committee of the Network (ICT-Hub), but it is essential that they work as a team, with the steering Committee playing a hands-on role in providing the overall direction for the Network (ICT-Hub) and for the coordinator.

Network (ICT-Hub) Centre Coordinator Functions:

Surely not all of the coordinator's tasks will be the same for every Network (ICT-Hub). However, there are certain essential functions like managing the day-to-day operations that a coordinator will have to perform for a Network (ICT-Hub). However, Jensen and Esterhuysen discuss the role of the Centre Coordinator in detail in the Cookbook for Tele-Centers (2001:71, 72).

Identify Stakeholders and Influencing Factors

The ultimate success of a Network (ICT-Hub) is determined by the stakeholders of a community centre and influencing factors beyond the control of the various individuals that have taken ownership of the initiative. In order to reduce these risks, it's important to take the identified three best practices (*business support, content creation and Technical*

support) into consideration along with the individual's social environment or factors they operate in.

Therefore, the importance of getting to know the role players within the targeted community before the research and development of an information and communication technology centre in a rural area can take place as new influencing factors will arise during the process.

Identify Training Programme (Train-the-Trainer)

Training and Support Needs: The main objective is to establish a sustainable information and communication technology resource centre in a community. The focus will be on the Network (ICT-Hub) operations and business principles. Therefore the broad training objectives are as follows:

- **First level:**
 - Develop or consolidate basic computer skills.
 - Expand these skills into the business arena through the Microsoft Office system.
 - Establish the fundamental business skills required.
 - Integrate computer and business skills for application on site.
 - Create a business plan to run the components of the pilot sites effectively.
 - Understand how this business plan will be implemented effectively.

- **Second level:**
 - Consolidate the business plan for the operational components of the site.
 - Expand the range of business skills needed to provide business support.
 - Get to grips with assessing business ventures.
 - Develop business support and counseling competencies through case studies.
 - Be able to run & maintain the technology on site.
 - Develop the ability to generate quality documentation and meaningful information.
 - Establish an effective training facility.

The minimum training and support procedures for participants are given, based on the following considerations:

- All participants will need both training and support.
- Further attention needs to be paid to the weaker participants in the areas of computer literacy and community business support.
- The support function is a critical extension of the training and development function.

Training and Support Minimum Requirements: The Network (ICT-Hub) model make use of members of a specific rural community, some of the candidates selected to participate in the establishment of the centre may have no prior computer experience. Therefore, the importance in the selection of the training content and training approach of the community members to turn their weaknesses into strengths for the benefit of the community at large, the following table summaries the recommended minimum training and support requirements to establish an Network (ICT-Hub):

Table 4: *Training and Support Minimum Requirements*

ASPECT	RECOMMENDATION	
Description	Duration	Support material
Computer literacy and Content creation		
MS office I.e. Windows orientation MS Word orientation MS Excel orientation MS Publisher orientation MS Front page orientation	25 days	Win Tutor computer-based training CD or equivalent, MS Word tutorials computer-based training CD, MS Excel tutorials computer-based training CD, Publisher tutorial , Front page tutorial
HTML orientation	10 days	HTML tutorial
Total Days	30 Days	
Business support		

Understanding business principles	20 Days	An approach to business.
Marketing		Marketing
Costing and pricing		Costing and pricing
Business planning		business plan
Compiling a business plan		Electronic template of business plan.
Technical support		
PC components (main parts of a computer , their associated components and operational module)	20 Days	Technical support CD-ROM
Introduction to A+ , C+		C+, A+ tutorial material
Repair and Maintenance		
An efficient timetable is required.		

Network (ICT-Hub) Personnel Training Agenda: Training forms are a vital component when equipping the human resources of a Network (ICT-Hub) with the relevant skills to enable them to serve the needs of the community at large. Therefore the training approach must be carefully considered and compiled as well as the duration and time span from start to end. Conduct the training first before creating a technology thread with the candidates. However, there is a fine line with regards to *technology dump* versus *technology push* in a community.

This training model proposes a week of intensive training and at least three weeks of skill absorption and practice by the personnel of the Network (ICT-Hub) before the next week of intensive training takes place. However, the proposed period of establishing the Network (ICT-Hub) is twelve to eighteen months at least, within the first six months most of the intensive training must be completed to equip the personnel with the relevant operational competencies to operate towards a sustainable Network (ICT-Hub).

The operational and business model is based on defining the income-generating potential of the main operational components of a Network (ICT-Hub). The main operational components of a Network (ICT-Hub) are (1) Tele-centre Components, (2) Desk Top Publishing Components, (3) Training Components and (4) Business Support

Components; with all services provided within these components have an income generating potential.

Identify Best Location for a Network (ICT-Hub)

It is a costly exercise to research, design and build Network (ICT-Hub) premises from scratch in a rural community. Therefore ideally the community should provide premises for the Network (ICT-Hub) rent-free and maintenance free. If this not possible, an organization(s) in the community might be able to provide the space or pay the rent as part of their contribution to the Network (ICT-Hub), at least until it becomes viable (in this case that's why RIC-NET emphasizes Centers owned by CBOs/NGOs within the area/location).

The installation of electricity supply and a telecommunications link are a great consideration in addition to a business environment (trading centers).

As with all services aimed at the public, experience has shown that the right location is at the top of the list of key ingredients for the success of a Network (ICT-Hub). A Network (ICT-Hub) that is far away in a side street, or hidden away in a location, will have to work very hard to make itself known to the community and is unlikely to attract any passing by clients. Therefore passing by clients are very important for the viability of the Network (ICT-Hub).

Sustainability hinges on a Network (ICT-Hub)'s visibility and accessibility to as many users as possible in the area it is located. Where highly visible premises are not available for the establishment of a Network (ICT-Hub), marketing plans should take this into account, and relationships with other organizations in the community will be greatly important.

A Network (ICT-Hub) can operate in almost any space that is available and affordable for the community, provided it has electricity source, a telephone connection and is reasonably secure. The number of rooms is determined by the various services the Network (ICT-Hub) needs to provide to the community. The preference would be separate rooms rather than one large room. If there is a choice of premises, look for space that is large enough to accommodate the expansion of the computer network and other small business activities.

Sustainability of the Network (ICT-Hub)

The operational components and business model is based on defining the income-generating potential of the main operational components of for a Network (ICT-Hub). Each major component provides a range of services to the community at a fee.

The low-cost, high volume business found in the first two components (Tele-centre and DTP) can create the fundamental cash flow needed to support the higher-level activities (Training and Business support). These elements have been combined with anticipated

volumes of transactions to arrive at the target income and other aspects of the business plan, to analyze the potential for the Network (ICT-Hub) to support itself as a self-sustaining business. The Network (ICT-Hub) also reduces the rural-urban *digital divide*.

The sustainability of the Network (ICT-Hub) will largely be determined by the increase in the number of members or users of the facility in relation to the ability of the personnel to meet their demand. Therefore the centre needs to be managed within the framework of a sustainable business plan.

CONCLUSION:

The idea behind this abstract was to develop, investigate and share a strategy to successfully implement developmental information and communication technologies in a new or existing community centre in the Rwenzori region, western part of Uganda, & to contribute towards integrated service delivery modules for rural communities.

The main purpose of the concept is to utilize existing both NGOs & Government initiatives as far as possible to create self-sustainable centers by removing the burden on scarce resources through consolidating efforts towards resource mobilization & utilization.

The main area that has been considered in this concept is Rwenzori Information Centers Network (RIC-NET), where most of the views have been extracted from the reality of its practical experience.

By: Rwakyera James

Regional ICT liaisons officer

Rwenzori Information Centers Network

P O Box 782 Fort-Portal Uganda

Email: r_jamesr@yahoo.com.