



e-Brain hosts an ICT4D Radio Programme that is broadcasted three times a week on the Zambian radio station Hone FM.

e-Brain Forum of Zambia

The National ICT4D Network in Zambia

The ICT for Development (ICT4D) national networks focus on the role of Information and Communication Technology in accelerating development in various sectors (education, health, rural livelihood and governance) in a country. This Thematic Learning Brief describes the lessons learned by the e-Brain Forum of Zambia, the IICD supported National ICT4D Network in Zambia. It is intended for practitioners in the field who would like to learn from the experiences of this network as well as organisations that would like to implement a similar network.

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The Thematic Learning Brief takes much of its learning from the evaluation exercises that have been performed by the network, with the help of the International Institute for Communication and Development (IICD) and the local Evaluation partner in Zambia Travaillant Vers Une Economie Liberale (TEL) over the years. This Evaluation system consists on the one hand of questionnaires filled in anonymously by the members of the network on a yearly

basis (a representative sample) and analyses of the data from these questionnaires: user profiles, use and satisfaction of services, and the impact of the network. On the other hand, it also consists of Focus Group meetings, attended by members, the Secretariat and members of the Management Team, to reflect on the data and discuss successes, challenges and solutions. The brief has been further elaborated upon in close collaboration with the network partner, the e-Brain Forum of Zambia (e-Brain). For more information about IICD in general, please refer to the last page.

Context

It all started in 2001 with a few IICD partners in Zambia, but no platform to share ideas and experiences. For that reason, IICD organised a workshop in The Hague in June 2001 that focused on the theme “Strengthening Information Exchange and Networks on ICTs”. Margree Chilwesa was one of the people who attended from Zambia: “At that moment other countries were ahead of us. Zambia had nothing, but I went back with many ideas”. He felt the challenge: “... would it be possible to establish a platform that could spearhead ICT in Zambia?” Afterwards, e-Brain was formed with a small group of only four people, “... to explain to people what ICT could do for them, even if they did not know the technology behind it. E-Brain wanted to share knowledge between the people who know about ICT and the people who don’t”. Another important theme was related to young people: “How can you bring technology into the schools and make it part of their everyday life?”. E-Brain would bring many people together, beyond the limits of IICD partners, into a network that consisted of a diverse group of people, from policy-makers to people working in the field. “The original idea was to become a think tank where professionals and non-professionals come together and, together, drive the national ICT development agenda.”

The organisation

The e-Brain Forum of Zambia is a national, Zambian not-for-profit organization whose main objective is to develop a common knowledge-sharing community on the use of ICT to foster social and economic development. Within the network, the ICT challenges of Zambia are addressed. The forum was established in June 2001 and officially registered under the Society Act as a Non-Governmental Organization in April 2002. Since 2002, the organisation has seen major changes in terms of membership, which has grown substantially over the years. In 2002, the organization had 68 members. So far, the number of members has increased to 120 in 2009, including a few organisational members. The Management Team is responsible for administering the e-Brain network and its members are nominated and elected every two years from the general membership of e-Brain. It is made up of 8 people, including the chairpersons of each registered chapter (currently three). The Secretariat is appointed by the Management Team. The Secretariat has been periodically staffed by different people over time, for various reasons.

Vision, Mission and Objectives

The vision of e-Brain is: To be the leading organization in promoting universal usage of ICTs for national development.

Their mission is: To provide a platform to maximize the utilization of ICTs to improve the quality of life.

The objectives of the Forum are:

- To improve the **awareness** of people in Zambia in the use of ICTs in social and economic development by December 2012.
- To **improve access to ICTs** for all Zambians to improve their quality of life by December 2012.



Zambia Profile

Zambia	
Surface Area (sq. km):	752.6 km ²
Population:	11.9 million
Life expectancy:	42 years
School enrolment, primary (% net):	92%
Human development index (UNDP):	165

Source: World Development Indicators database, 2007

Access to communication technologies

per 1,000 people	
Mobile subscribers:	140
Internet Users:	42.2
Personal computers:	11.2

Source: UN eGovernment survey 2008

Data on the project

Sector:	All
Number of fully paid-up members:	120
Number of Dgroup members:	280
Target group(s):	Practitioners and policy-makers from sectors such as Agriculture, Health, Rural connectivity, Education and private sector development.

- To increase the **level of knowledge and skills** of Zambians in ICTs for Development by December 2012.
- To establish a **well coordinated and sustainable** e-Brain organization by December 2012.

Achievements

- E-Brain successfully launched three chapters, each one of which contributes to the overall objective of the Forum. Many other chapters will be launched in the remaining provinces.
- The organisation advocated for the ICT policy and made submissions in the ICT implementation policy.
- E-Brain successfully hosted the ICT conference for policy-makers in Local Government and Housing for the Local Authorities, i.e. Mayors and Town Clerks.
- E-Brain hosted the Round Table in Education and the Round Table in Agriculture and facilitated in the eHealth Round Table.
- E-Brain has continuously participated in National Agriculture and Commercial shows to enhance, lobby and create awareness among everyone present about all the latest ICT for development updates.
- E-Brain publishes the e-Brain newsletter which has been circulated throughout Zambia and continues to highlight best practices and share experiences through ICT4D stories.
- E-Brain has monthly meetings where all the challenges related to ICT4D are regularly discussed.



A project node meeting for all IICD partners in Zambia.

- The organisation sits on various National Committees, e.g. the national eLearning Zambia committee and the National ICT Sector Committee.
- The organisation successfully carried out research into: 'Rural access: options and challenges for connectivity and energy in Zambia'; and 'Knowledge management in Schools'; and 'Internet Connectivity: "Internet for all"'
- E-Brain hosted several Dgroup discussions
- E-Brain is conducting a comprehensive 'Survey of e-Learning in Zambia' for e-Learning Africa (in Zambia, May 2010)

Target group of the network

In order to evaluate the project, 41 questionnaires were collected online from e-Brain members. The data that was collected helps to classify the profile of the users, their levels of satisfaction with the network, as well as the extent to which they use the network and the impact it has had so far. The target group (users) are the members of the network, practitioners, and policy-makers from different sectors, including Agriculture, Health, Rural connectivity, Education and private sector development.

One of the most striking characteristics of the e-Brain membership base is its male dominance: 81% of the members are male. The number of female participants is fluctuating. In 2006, 27% was female; this fell in 2007 to 19%, but increased to 35% in 2008 only to fall down again to

19% in 2009. As one member put it: "There is still a need for many women ICT players to come and participate in the network. Also we need a deliberately women-oriented programme to be in place so that it could bring many women together, for example a funded publication".

The majority of members are between 21-40 years old (65%); most have reached tertiary level education and live in the capital city, Lusaka. In 2009, this remained at 70% of the members (with only 3% living in the rural areas). In 2006, this was still at 97%, in 2007 it dropped to 76%, and in 2008 it also fell to 70%. However, the number of people outside Lusaka who would like to organise themselves is increasing. At the moment, there are e-Brain chapters in Kitwe, Kabwe and Livingstone, but Mongu, Mpika and Solwezi would also like to open a chapter. This shows that ICT is reaching the provincial rural towns and that people want to connect with each other if they are aware of what ICT can do for them. Around 85% of the members have been members for more than one year.

Since the inception of the project, the project end-users have been asked about their motivation to participate in the network. A lot of the members gave answers along the following lines: "to share experiences – to acquire opportunities and gain knowledge". One member gave the following answer: "I am an advocate of ICT4D as a change agent in development. I am interested in learning from other



e-Brain enables people in thematic groups to interact by providing the means to do so, which would have been otherwise difficult.

people's experiences, willing to share information with others, and share the passion to share knowledge about ICTs and what they can do to improve people's lives". Another person became a member to "... improve information flows between myself, my organisation, stakeholders and the farming community through the use of ICT to improve the livelihoods of the rural communities".

For most members, the objectives and goals of the network are clear (65%) or partly clear (34%). However, more can certainly be done to make the members aware of the goals and objectives of the network. E-Brain should explain this better to new members. One member suggested a 'new member information package' to improve this. Based on the participation of members, people are either "heavy users" (40% participate daily or weekly) or "light" users 40% participate less than once a month. Only 54% of the members mentioned that their goals had already been met. Although most members who did not achieve their goals stated that they had only recently joined the network so it was too early to tell. One member would like to have an orientation workshop to be clearer about what the network is doing. Other members are more preoccupied with their own situation: "I lack the facilities to be online often and e-Brain is mainly about online discussion." The members who did achieve their goals explained how they had managed to achieve their goals: "I have achieved a lot in the network.

I have more contacts now and I have done projects through the network." Another member stated: "I have been able to get in touch with people who are doing similar activities to me, thereby strengthening linkages. The network enables people in thematic groups to interact by providing the means to do so which would have been otherwise difficult. The monthly meetings have been rewarding in terms of additional knowledge gained." As one person from an IICD-supported project explained: "I have been able to use the network to solve some of the problems we were facing in our project through the use of the Technical Support Group."

The members contribute to the network by attending meetings (21%) and by sharing knowledge on the Dgroup (17%). Out of all the members, 71% find the contacts they make within the network very useful. Only 24% of the members felt very involved. While 65% agreed that there is enough diversity in the network, the majority also confirmed that e-Brain has the right size of active members, although 40% thought that e-Brain should expand and become more active. Finally, 72% wanted to be more involved in the discussions and decisions.

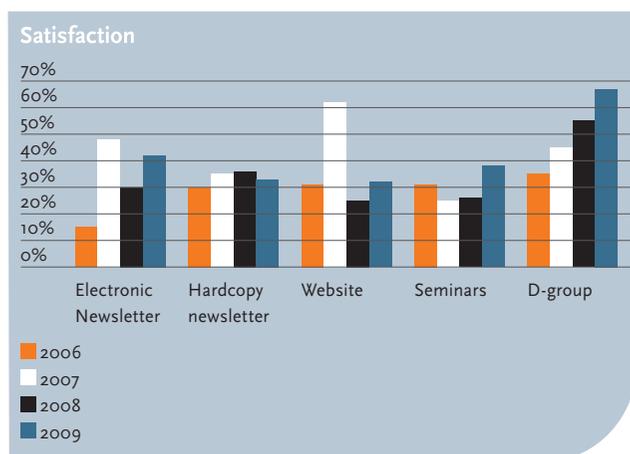
Satisfaction

The satisfaction levels of members and the overall impact of e-Brain has been measured for three (3) years, which

provides a reliable picture of how the project has developed over time. Starting in 2006, the project collected questionnaires from 38 members of the network, then 21 in 2007, and 50 in 2008.

The satisfaction rate was measured by three major factors namely; (1) achievement of goals, (2) opinions towards activities, services and products and, (3) frequency of use of knowledge as well as its application.

The satisfaction level with the services provided by e-Brain gives a mixed feeling. In general, people are positive about the services, but a third of the members are less satisfied. Most positive are people about the Dgroup: 67% is strongly satisfied and 29% partly satisfied and only 4% find this weak. This continued to increase during the last four years. The website is currently seen as strong by only 32%, while 44% are partly satisfied and 20% consider it weak. This is probably caused by the re-design of the website in 2009. As a result of this, the existing website was not updated for part of the year because all efforts went into the development of the new website to increase its capacity for interactivity. The new website was launched early in 2010 and should increase the satisfaction levels of the members in 2010 after the Secretariat has been trained to update it. An even bigger group is dissatisfied with the newsletter: 44% consider the hard copy version weak and 21% find the electronic newsletter weak. During the Focus group meeting in May 2010 it was mentioned that this dissatisfaction is primarily about the distribution of the newsletter rather than its content. A recommendation was subsequently made to upload the electronic newsletter not only to the website, but also to distribute this through the Dgroup library function.

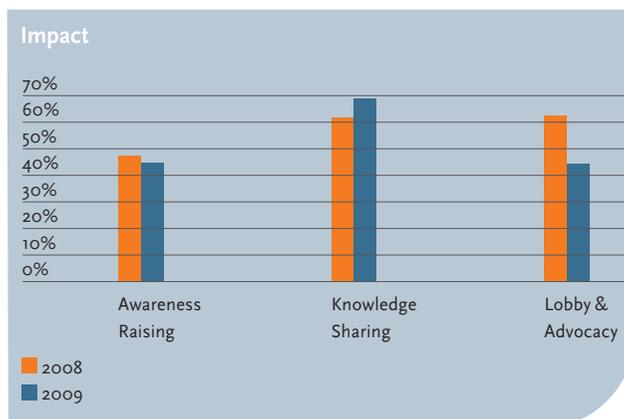


Another question the respondents were asked was “What do you consider to be the most important change (in your work), which would not have happened without your participation in the network?” The answered varied widely. One member used it for networking: “It is easier to link up with many stakeholders through the network”, another to exchange knowledge: “Knowledge sharing among other ICT people has really helped me to focus on areas of ICT that are most vital”. One of the teachers stated: “Since the e-Brain forum raised awareness about Free Open Source Software (FOSS) I have become involved in it. This has helped me to assist other teachers, students and the school about the benefits of FOSS in education.”

Impact

The impact of the network is measured by asking users to respond to a 7-point scale (strongly disagree to strongly agree) selection of questions and then combining these statements into three (3) impacts: Awareness Raising, Knowledge Sharing and Lobbying and Advocacy.

In general, the impact study showed that members displayed a positive attitude towards all of the the main impact factors.



Awareness among users about the potential use of ICTs

Awareness is an indicator of impact that shows whether or not users of the project see themselves as having become more aware of the possibilities of ICTs (for their work): 44% of the respondents were positive about this within e-Brain; a small drop in comparison to 2008 (48%). Respondents were most positive (78%) about the underlying statement “... through the network I have gained more knowledge about ICT4D”. Considerably fewer members agreed with the statement: “The network opens up new opportunities for women using ICT”. The members did see improvements for e-Brain in “posting more articles and activities on the network”, “encouraging more people, especially women, to join and introduce these programmes in schools - not only in private schools, but also in rural areas” and a third member mentioned “exploring opportunities for involving the rural communities whose livelihoods we are trying to lift up using ICT”. Another important contribution is about the technical talk that is sometimes on the Dgroup: “... the people who contribute most are often talking a lot about the technical issues relating to ICT and I think that ICT should be discussed more frequently as a tool rather than as an end in itself”.

In the last two years, e-Brain Zambia organised a variety of awareness-raising activities like the Monthly Meetings. It organised a forum on “Smart cards for electronic health records” with 42 participants from the health sector. An Education seminar was organised in collaboration with Atos Origin¹ and IICD about “The potential and challenges faced by Zambian organisations when using ICT to develop and share local educational resources”. This seminar was organised both in Kitwe and in Lusaka for educational stakeholders. Another forum was organised about the “effectiveness of mobile phones in agriculture”.

¹ Atos Origin is a Dutch ICT company that is a private sector partner of IICD

e-Brain supported IICD with the organisation of Round Table workshops in Health, Agriculture and Education to make the sectors aware of the positive value of ICT and to focus on challenges in the sector that ICT could solve.

The forum promotes the use of ICT for development to improve the community's livelihood through thematic sectors, Agriculture, Health, Rural connectivity, Education, and Livelihoods/Youth.

Another awareness programme running in 2010 is the ICT4D Radio Programme which is broadcasted three (3) times a week at Hone FM to promote the value of ICT for developing Zambia.

Knowledge sharing

In 2009, 69% of the respondents were positive about knowledge sharing in e-Brain; a small increase in comparison to 2008 (62%). The following statement in particular: "The network provides me with access to new knowledge and ideas" was highly rated, with 76% of the respondents indicating that they were positive about this aspect. Fewer members were positive (47%) about the statement: "The network has helped me to partner with other members to set up new activities". The members see the network more as a place for new ideas and less as a place where they can find partners to do something with the knowledge gained. As an improvement, members stated that: "The network has few women participating in the programmes. I feel the network has the obligation to try and deliberately design programmes that will encourage women to participate and share in the knowledge". During the focus group, a suggestion to the Secretariat was made along the following lines: "They should organise a contest to encourage more members to write articles". The thematic networks should become more active to encourage more thematic contributions too. The members suggested the following topics and activities for further Knowledge Sharing: "Agriculture and ICTs. This topic should really explore the practical benefits of how the rural farmer, for example, can benefit from using ICTs for their own development at the local level", "More detailed information about development issues such as HIV/Aids and ICT, with exchange visits in the region and beyond", and "The future of the telecentre in a low-cost internet country".

A large part of the Knowledge Sharing activities of e-Brain are through the online discussions on various ICT4D-related topics. In 2008, e-Brain was one of the five (5) most active Dgroups in the world. But the trend is that the number of discussions in the main group is slightly reduced. From a record number of 295 discussions during the third quarter (Q3) of the year in 2008, it is now reduced to around 70 per quarter. Partly because of the establishment of thematic discussion groups in August 2008: at this point, discussions were moved to more relevant 'thematic discussions'. In the last two years, the e-Brain Dgroup has grown to 259 members. Out of this overall number, 105 people contributed at least once during the last two years; this amounts to 40% of the members. Twenty-two (22) of them are female (21% of the total). The females who participated

were slightly more active than the male participants, with an average of 12.2 contributions versus 10.6 for the males. Sixteen (16) people had more than 20 contributions each, so the majority of participants were not very active. In total, 386 contributions were written in the 5 thematic groups (health, education, agriculture, technical support and governance) by 54 different members. A sixth group was recently established for Youth/livelihoods. The most active thematic discussion groups are the Education group with 86 participants and 236 contributions and the Technical support group with 82 members and 246 contributions.

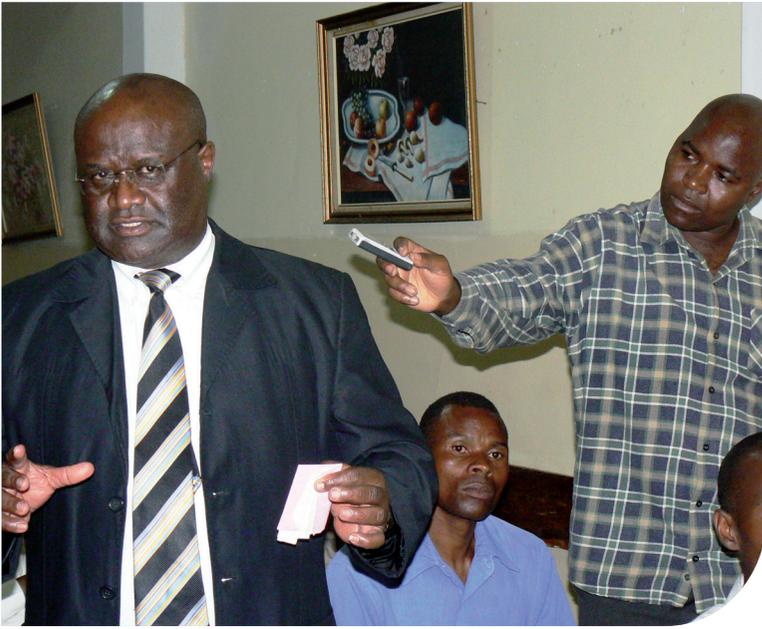
Examples of discussion issues in the main group are "Connecting Rural communities", "ICT4Development Radio Programme" and "Twitter in Zambia". In the thematic groups the discussion can be about policy-influencing, such as the discussion about the "ICT bill" in the Technical Support group, or very practical about issues such as "rabbit broadband of Zamnet" which also took place in the Technical Support group, to more sector-related discussions like "FAO diversification booklets: should they be translated into the local language" in the agriculture thematic group or, in the education thematic group; a discussion about the "Usefulness of Open Educational Resources". During the Focus Group discussion in May 2010 it was mentioned that further improvements in the Dgroup could be "... through better moderation of the Dgroup. Putting questions to members and summarizing the discussions."

The technical support group was established in 2009. Part of this group is a registered ICT trainers group (by e-Brain) that could provide training in different ICT subjects to the IICD project partners and other organisations that are in need of ICT training. The group also organises knowledge sharing activities to build each others' capacities and share training materials among each of the members.

E-Brain conducted two research studies in 2009 as part of knowledge creation and sharing. One focused on 'Rural access options and challenges for connectivity and energy in Zambia'. This report was disseminated to a group of stakeholders and discussed among the e-Brain members. The second research study was about 'The use and implementation of knowledge management in schools'.

The emphasis in 2008 and 2009 was also on developing local chapters with activities in Kabwe, Kitwe, Livingstone and a Tech forum in Mongu between local and Lusaka-based technical and non-technical people, to train and link the IICD-supported projects and other local technical ICT people with each other to make more local support possible instead of transporting people from Lusaka. The various meetings are organised in collaboration with the thematic groups (in health, agriculture, education, etc) and the Secretariat.

The forum has worked with various networks and organizations in Knowledge sharing as well as on improving the sharing of information about ICT for development. The e-Brain forum of Zambia participated in various ICT4D fora, both locally and international.



A monthly meeting, this one on ICT in Elections.

Lobbying and advocacy

Only 44% of the members are positive about e-Brain's lobbying and advocacy activities. This is a sharp drop from 2008 (63%). The statement that the respondents considered to be most important is "The network is an important stakeholder in ICT-related policy debates", which is seen by 62% as positive. But only 44% are positive about the fact that "The network represents me in their activities and products" and in the statement "The network effectively engages with policy-makers". These are factors that the Management Team and the Secretariat would like to address to give more members the feeling that they are really represented by the network. This could not be explained during the Focus Group meeting in May 2010, but improvements that respondents suggested were: be more pro-active and use the media more to create awareness at policy level", "encourage more policy-makers to join the network and act as a bridge between policy-makers and ICT users". A similar response mentioned "Involve more parliamentarians and make them more aware of what ICT can do in the development of the nation".

Achievements in Advocacy included participating in the organising committee of e-Learning in Zambia and eLearning Africa in Zambia in 2010. The organization made submissions and contributions to several government Acts, like the National Information policy and computer misuse Act, the Fifth National Development Plan and the National ICT policy.

Lessons learned

E-Brain is a learning organisation that measures its impact on its members. It is also very keen to see where improvements could be made:

- Communication with members using internet or email alone is not sufficient as most of our members do not have access to internet facilities, hence other forms of communication are needed like phone, SMS and even the manual delivery of information by courier.

- Members' expectations are changing and challenging, hence the need to adapt to a new situation within our core objectives
- More people are willing to join e-Brain, but the institutional members have been complaining about the high cost of their membership fees. This is addressed by the Management Team in an Annual General Meeting (AGM) to revise fees to encourage more organisational memberships. The benefits for members should be much more clearly communicated to the members.
- The growth of the e-Brain forum of Zambia in terms of activities and requests from members of the public, Government and other stakeholders is great and managing this requires an effective Secretariat. The Secretariat is functioning to serve better the general membership, the Management Team, Partners and stakeholders
- The Thematic groups are the lifeblood for the forum and membership shall span to chapters in the provinces as well as Lusaka. More active participation in these groups is therefore crucial, both in face-to-face meetings as well as in the electronic discussion group.

Challenges

During the development of the Strategic Plan 2009–2011, e-Brain formulated five (5) key issues that it would like to address in the next three years as its major challenges:

- **Outreach:** e-Brain is still far too dependent on its members from Lusaka. One key challenge is to attract more members from the districts and rural areas outside Lusaka. This could be done by opening more local chapters that will organise local activities like knowledge-sharing events and capacity building in ICT skills. Developing local language materials (multi-media) and distributing them on CD-ROM (off-line) could be a way forward to address the connectivity issue in rural areas.
- **Gender participation:** Issues of gender play a very important role in developing a sustainable strategy for national development. The e-Brain forum will endeavour to mainstream gender to encourage integrating women to participate in its activities. Ideas for increasing the participation include more collaboration with women's groups and inviting more female guest speakers to the Monthly meetings.
- **Staffing:** In order to serve the members and the general public effectively, the Forum will ensure that sufficient staffing is in place. There is a need to establish an efficient and effective coordinated secretariat. This is necessary to transform the organization into a national champion for ICT. A stable staffing of the Secretariat is crucial in this, just like a good internal and external communication strategy.
- **Funding:** The forum recognizes the fact that it has limited resources to support its activities. It will ensure that it will generate its own funds for the operation of the organization. In carrying out the activities, it shall actively engage partners and explore ways of generating funds. It will facilitate ICT skills training among Forum members.
- **Membership Strategy:** The membership strategy will be tailored according to members' needs. This will include involving the members so that they can showcase their skills

and, in turn, remunerate them according to their expertise. The Forum will also target interest groups that will inject quality into e-Brain membership base.

Next steps and future plans

In 2009, e-Brain developed a Strategic Plan 2010-2012 with a committee of people from the Secretariat, the Management Team and from the membership base, that outlined the key challenges that should be addressed in Zambia for the further development of the nation that are related to ICT and that e-Brain would like to address:

- High cost of access to ICT (low access) caused by: the high cost of Telecommunications, low access to (mobile) phones, low quality of internet services, high cost of Telecommunications equipment, high tax telecommunications equipment, low sources of energy in most parts of the country. E-Brain will develop an advocacy campaign to address these issues.
- Low use of ICTs: especially outside Lusaka, because of the lack of capacity and technical support. E-Brain will address this by establishing more local chapters for awareness-raising about the value of ICT in the different sectors, knowledge sharing in ICT, and by collaborating with organisations in the different districts.
- Low ICT skills: Not enough awareness among end-users about how to use ICTs efficiently, brain drain, lack of training in the provinces, inadequate ICT skills in most sectors. The e-Brain Technical Support Group could play a role in building ICT capacities throughout the country.
- Lack of access to relevant information: lack of local content, not enough access to ICTs available for health staff, rural Farmers, Teachers and students and the local businessmen. E-Brain could play a role here by bringing relevant stakeholders together to stimulate and produce the development of local content (multi-media, local languages).
- Lack of ICT awareness at the Policy level: Decision-makers do not have enough knowledge about ICTs to make informed decisions. Parliamentarians need to have more knowledge about ICTs; the Government is silent about the policy implementation process. E-Brain could play a role by sitting on different Government committees and through the advocacy of ICT4D issues.

The focus of the plan will be on Knowledge-sharing events in the Education, Health and Agriculture sector, deepening the knowledge of members to utilize their expertise better, increasing the funding base of the network, producing more local ICT4D stories and videos, encouraging more electronic discussion in the thematic Dgroups and building the capacity in Lobbying and advocacy skills. The Forum will continue advocating to key stakeholders about the utilization of ICT for development in the developmental aspects of all sectors to foster the economic and social growth of the country. Increasing the number of its institutional members will enable the Forum to partner with and undertake various activities. The organization will continue to lobby policy-makers on making the utilization of ICT for development a top priority point on the agenda for Zambia. The use of ICT for development is still low and therefore there is a need to continue influencing the knowledge sharing platform.

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With the right tools, people in developing countries can considerably improve their livelihoods and quality of life. Better access to information and communication technology (ICT) is particularly vital in enabling them to achieve their goals. This is why the International Institute for Communication and Development (IICD) creates practical and sustainable solutions that connect people and enable them to benefit from ICT. As an independent not-for-profit foundation, we put knowledge, innovation and finance to work with partners from the public, private and not-for profit sectors. Together, we can make a world of difference.

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