Nurturing Collaborative E-learning, Through The Integration Of Social Media, ICTs And Multimedia Communication In ODL For The Small Scale Miners And New Farmers Through The Zimbabwe Open University's Center For Professional Development.

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Abstract: *The advent of social media and the mobile phones as well as multimedia communication systems have transformed the face of collaborative learning in order to compress the distance in Open and Distance learning (ODL). The thrust of this study was to explore, establish knowledge sharing platforms and strengthen the feasibility of integrative communication through social media, ICTs and multimedia communication in collaborative learning as well as mitigation strategies in ODL and center for professional development. These provided hybrid communication and established versatile and sustainable community information banks for small scale miners and new farmers. Through the integration of social media, the above beneficiaries discovered the power of ICTs and multimedia communication in order to effect change (Christensen, 2011). The above systems were merged and interactive platforms that are participatory in nature were established. Above all, social media, ICTs and multimedia communication managed to connect people, who previously did not know each other. The study employed predominantly qualitative research methodology. This methodology was tailored to include integrated community co-design, grounded in a participatory action research paradigm and an online dialogic design approach. Data collection instruments included online observations and in-depth interviews which have been found to have the capacity of gathering rich data about phenomena (Flick, Von Kardoff & Steinke, 2004). It has been recommended that knowledge sharing platforms of this nature need to be accelerated in order to sustainably transform small scale miners (makorokoza) and new farmers into formidable business ventures. These harmonized ventures brought connectivity, interactive platforms, hybrid and e-learning compliance in line with the demands of the 21st century.*

Key Words: *Social Media, Multimedia, ICTs, Participatory, Collaborative*

I.   Introduction

Social media, mobile phones and multimedia communication as well as other forms of related ICTs and OERs have ushered a new era and revolution in developmental communication. The communication environment has been tremendously transformed and consolidated through the creation of harmonized and interactive social media platforms. The sustainable use of social media and ICTs provide the spirit of empowerment through related participatory networks. The Zimbabwe Open University's noble Center for Professional Development is people-oriented and it assists and train new farmers and small-scale miners through Open and Distance learning programmes so that they improve their capacities and viabilities. It also equips them with current knowledge and related skills aimed at improving the understanding of their various sectors. In Zimbabwe, these groups of sectors have been refered to using derogatory terms like 'Makorokoza' (Gold-panners) and 'Hondo-yeminda' (Farm-invaders). It is this misconception that the Zimbabwe Open University seeks to demystify by formalizing and organizing training courses for these groups to participate and contribute equally to the Zimbabwean economy and that of the region. In order to transform and consolidate their activities, small scale miners and farmers in the SADC region need to collaborate and share their mining and farming knowledge through the vigorous use of social media, e-learning, ICTs and multimedia communication as interactive platforms that are open to all groups of this nature. It is also the duty of the Zimbabwe Open University to spread its tentacles in the region and link with other like minded development groups in the region in Zambia, Zimbabwe, South Africa, Botswana, Tanzania and others. It is also the thrust of this research to explore how these informal sectors can be nurtured through collaborative e-learning, integration of social media, ICTs and multimedia communication in ODL for the small scale miners and new farmers through the Zimbabwe Open University's Center for Professional Development.

II.   Background To The Study

Gold panning has been practiced in Zimbabwe and other African countries for centuries but up to this day, it has not been formalized, leading to land degradation, environmental damage, pollution, loss of revenue for the state and the creation of chaos in the mining sector. Small scale miners have survived running battles with the law enforcement for years in this highly lucrative sector. Panners have been viewed with suspicion, scorn and social outcasts due to the ways in which they spend their money. To complement the efforts of the Zimbabwe Open University's Center for Professional Development, a story was carried out in the print media, The Daily News edition of Sunday, July 26, 2013, with the title, 'Government finally recognises Makorokoza.' The following are some extracts from this story:

"Having borne the brunt of playing cat and mouse with the police in the pits for years, artisanal miners, also known as Makorokoza have finally been recognized as an important sector by the government."

Deputy Mines and Mining Development minister, Gift Chimanikire told a Small-Scale Miner's conference at the Mine Entra that government will support the growth of the sector.

"Government has taken it upon itself to assist the small scale miners to boost mineral production for the development of the nation without external support." Chimanikire said.

"Given that since 2010, a total of about 26% of gold production was from small-scale mines, the sector has potential to contribute more if given the necessary support," he said.

The above assertions serve to notify that the small-scale miners are now a legal entity and that they should formalize their mining operations so that they fit and compete effectively with the main stream miners. These are the people that the Zimbabwe Open University's Center for Professional Development wants to nurture and give morden day expertise so that they desist from using stone-age methods to extract minerals from the ground. They need to move with technological advancement and new methods of mining in order to remain sustainable.

These small scale miners are taught how ICTs. Social media, multimedia communication and e-learning can be integrated through Open and Distance Learning programmes and shared amongst like minded organisations in the SADC region. This is important because the Zimbabwe Open University in collaboration with the government are taking new knowledge to the communities where people live thereby empowering them in the process.

The role of e-learning and integration of social media, ICTs and multimedia communication is central to modern day interactive learning and communication. There are more advantages than draw backs in using this kind of media. These network systems have been proven to be sustainable in use especially in open and distance learning programmes as they take education and empowerment to the people's door steps.

Mayfield (2008:4) defines social media as, "a group of new kinds of online media that share most or all of several characteristics: participation, openness, community conversations and interconnectedness." This means that small scale miners and new farmers across the SADC region should have the opportunities to engage each other, collaborate and carry messages to larger audiences without the filter of conventional media (Christensen, 2011). It is against this background that small-scale miners and new farmers of the SADC region, women in particular, due to social media integration, would have the capacity to discover the power of social media, multi-media communication, e-learning and ICTs to effect change. They can network, fundraise, interact, and establish groups and syndicates as well as sharing knowledge in farming and mining online.

According to Jallow (2010) social media is now merging and interacting with the radio and mobile phones in ways that complement each other. One way of measuring the impact of social media is to assess the number of users. Face book has an estimated 7 million users thus it can be compared to the population of one country, about 10% of the whole world population (Uimonem, 2001). Above all social media, ICTs and multimedia communications have connected people who previously did not know each other.

It is also important to define multimedia communication as Biaggi (1995) views it as any media that combines text, graphics, sound and video. Friedman as cited by Wise (2000) highlighted on the integration of data, texts, images and sounds within a single digital information environment. The above highlighted views emphasize on the merging of different media into a single hyper-integrated mode in collaborative e-learning through ICTs, social media and multimedia communication for small scale miners and new farmers. The most important aspect on the combination of the multimedia relia listed above is their nature of interactivity. Therefore the multiplicity of multimedia strategies would offer small-scale miners and new farmers of Zimbabwe and those of other countries in the region the finest moments of interacting and collaborating with each other at the same level in simple, cheaper and sustainable ways.

Vambe and Gunduza cited in Pfukwa (2001) divided multimedia into three categories which are oramedia, print and electronic media. Oramedia include dance, songs, folktales, speech and idioms while print media includes newspapers, books, magazines and other print materials. Electronic media include television, telephone, CD-ROM, fax, compact discs, video, cassettes, the internet and satellite digital communication. A

variety of these elements and materials would establish a comprehensive ICT and collaborative e-learning for new farmers and small scale miners in Zimbabwe and the SADC region.

III. Statement Of The Problem

Traditional small-scale mining and old farming methods are not being integrated with new technological innovations in order to move with the demands of cyber age. Many institutions of higher learning are not reaching out to the communities in attempts to bring new knowledge to their doorsteps. There is a lack of the creation of knowledge sharing platforms through collaborative e-learning, ICTs, social media and multimedia communication by universities in the SADC region as part of their community development and service initiatives.

IV. Purpose Of The Study

The purpose of this study is to empower disadvantaged small-scale miners and new farmers with requisite skills and techniques through the integration of morden technology into their developmental initiatives using cost cutting measures through collaborative e-learning, ICTs, social media and multimedia communication. It was also important to examine if the multimedia systems and communication technologies have an impact on the bid to transform traditional small-scale mining and farming knowledge into sustainable knowledge sharing platforms.

V. Research Questions

i.   What impact do collaborative e-learning, ICTs, social media and multimedia communication have on small-scale miners and new farmers in Zimbabwe and the SADC region?
ii.   How do universities nurture mining and farming technological growth through reaching out to communities?
iii.   What are the communicative functions of collaborative e-learning, ICTs, social media and multimedia communication in the discourse of sustainable development and empowerment?

VI. Review Of Related Literature

Quite a number of research articles, projects, documents and programmes have been done in these areas both at micro and macro levels. Collaborative e-learning, ICTs, social media and multimedia communication are topical issues of today so are issues concerning mining and land redistribution. Therefore researchers are trying to find new insights into problems that have a lot of bearing on their livelihoods. The only new initiative in this scenario is to fuse four cyber areas into an integrated hybrid whole as well as having the regional focus as a priority. Of course yes, this research is not the first of its kind in these areas but it is bringing in the new impetus in terms of communication hybridity.

What is Social Media?

Mayfield (2008) defines social media as, a group of new kinds of online media that share most or several characteristics: participation, openness, community conversations and interconnectedness. Through social media, small-scale miners and new farmers have opportunities to engage each other and carry messages to larger audiences, especially in the SADC region without the filter of conventional media (Christenstein, 2011). Due to the power of social media integration, people would discover the power of social media to effect change. They can network, find supporters, fundraise, inform and lobby online. According to Jallow (2010) social media is now merging and interacting with the radio and mobile phone in ways that do complement each other. One way of measuring the impact of social media is to assess the number of its users. Face book has an estimated 7 million users which can be compared with the population of the whole country.

International development organisations and scholars have called for an increasing emphasis on closing the equity-gap and outreach to the most marginalized and disadvantaged, as a critical step to make greater progress in efforts to achieve the millennium development goals (Vandemoorte, 2011, UNICEF, 2010).

Social Media and ICTs

Social media, through the youth have accorded the youth roles or creating new and safe platforms to communicate and collaborate with other like-minded people, exchange information and develop a sense of empowerment derived from their ability to participate in the public sphere (Bachan and Raftree, 2011). Without the possibilities that social media and other ICTs have made readily available, millions of youths would be unable to engage and collaborate with other youths in their region.

Community radio, mobile phones and the Internet

Radio is a powerful tool to bring the outside world into the studio. In many developing countries, mobile phone companies even provide free subscriptions to the community radio stations for the use of the mentioned services. Mobile phones are such powerful tools to enable large segments of the community to contact the radio stations. Using the mobile phones, listeners can contribute to programmes, request for specific issues raised, that a particular may offer. Mobile phones can be used as listening devices where connections can secure free wireless services. The internet can be used to store, capture, connect and link people so that there is a promotion of cost effective dissemination of information. It also promotes the integration of a variety of media into formal and non-formal training education. The internet also provides platforms for advocating for improved benefit from community programmes in action to benefit the poor.

What is multimedia communication?

Multimedia communication is a new discipline growing out of rapid developments in information technology and communication. These developments have brought about new patterns in information order and are bound to affect social attitudes of the users. Calvert (1996) views multimedia as being able to essentially link traditional types of the multimedia into one environment. Te various bits of information grouped together in a multimedia programme already exists as texts, audio-tapes, videos, pictures, slides or charts.

Multimedia can be used interchangeably with cyberspace, new media technologies and computer based technologies. Multimedia is important as it has a large aspect of interactive fusion. Therefore multimedia communication seeks to create and share meaning through a combination of several media to create one text, which can be oral, written or electronic. The multimedia text can be stored in something like Compact Disc Read-Only Memory (CD-ROM). This also includes telephone, television, and internet as well as satellite digital communication. Thus multimedia engages all senses in the learning environment. The learning process is not only enhanced but it is accelerated (Calvert, 1996).

VII. Methodology

Research Design

The study employed predominantly qualitative research methodology. The methodology was also tailored to include Community based co-design which is grounded in a participatory action research paradigm and a dialogic design approach. In this scenario, all participants engaged in a process of mutual learning, discovery, and joint designs as well as drama and communication policy groups. Integrated activities that fused social media, ICTs, e-learning and multimedia communication were central to this study. Documentary analysis brought to light how the interactive nature and communication functions of integrated forms of social media, e-learning, ICTs and multimedia communication. Focus groups are in the process of being established in order to collaborate regional small-scale mining and farming programmes through social media, e-learning, ICTs and multimedia communication platforms.

Data Collection Instruments

Through the use of ICTs, farmers and small-scale miners got helpful and training information directly, rather than documented information from researchers and policy-makers. These also included agricultural and mining services using ICT solutions or implementing ICT based activities for groups providing ICT services both at national and regional levels. Telephone based information delivery services provided advices on small-scale mining and farming methods and market access to improve the livelihoods of rural mining and farming communities. This would also include radio broadcasts that provide agricultural and mining information. This would also allow farmers or miners to contribute to the programmes through phoning-ins or SMSs. Through E-learning, basic skills for both small-scale mining and agricultural education and videos are provided. Observation of community based online activities and interactive collaborative learning platforms were examined in order to find out how communities carried out their small-scale mining and farming programmes. Observations and in-depth interviews have been found to have the capability of gathering rich data about phenomena (Flick, Von-Kardoff & Steinke, 2004). Focus groups were effective in providing information as to why people think and feel the way they do (Brainard, 1996).

Discussion and analysis of Data

The focus on the small-scale mining and farming initiatives has been institutionally driven as well as harmonization of knowledge sharing platforms in the region. The idea has been to give specific small-scale mining and farming sectors a voice and hands on as well as how to improve their initiatives. The small-scale gold miners needed specific information with regard to gold production, the same applied to small-scale chrome miners, coal, tin and other ores. As for the farmers, the information needed was context specific in line with tobacco growing, sugarcane, wheat, mushrooms or Jatropha. The medium of communication and instruction is

English, which has its own challenges and merits. For the unemployed literate graduates who have failed to find employment, this is quite meaningful and fruitful but for the illiterate individuals, this can present some viability challenges with limited or no capacities in handling or interacting with social media, ICTs, e-learning and multimedia communication. The advantages of these initiatives are the collaborative and interactive nature of the programmes in that, participants, be it in small-scale mining or agriculture; they are actively involved thereby communicating with their like minded individuals, locally, nationally and regionally through social media, ICTs, e-learning and multimedia in the form of Open and Distance Learning initiatives.

Interview with the Director of Center for Professional Development (ZOU)
The thrust of the Center for Professional Development is to reach out to communities and empower them with basic skills and knowledge in order to improve their livelihoods as well as moving with the current times and technological events. As part of its community service, the Zimbabwe Open University has a duty to establish interactive and participatory platforms of engaging with the disadvantaged and vulnerable members of the communities to uplift their living standards and participate in building the economy.

Interview with a Senior Member of the Confederation of Zimbabwe Miners Association
During the interview, the senior official walked us through the goals of his association, whose goals are alright empowerment and legalization of the former illegal miners known as Makorokoza (Gold panners). He emphasized that, at least 1 (one) million jobs are set to be created in the gold sector as the country moves towards the creation of syndicates to regularize the operations of illegal gold miners and empower formal small-scale miners with equipment. The senior officer indicated that the former illegal small-scale miners are about 200 000 and they are set to be empowered against approximately 20 000 mining claims. He also emphasized that, already, about $50 million would be set aside for training and acquiring tractors and milling plants.

Interview with one of the beneficiaries of the small-scale mining training programmes
The former trainee of the Zimbabwe Open University's Center for Professional Development lauded the center for empowering them with the requisite skills to mine not in traditional way but using modern methods. The most initiative they welcomed is the legalization of the formerly illegal venture. He said that they are happy to be absorbed into the mainstream economy and also as contributors to the economy. He indicated that for many years, they had fought running battles with the government, which viewed them as criminals rather than genuine fortune seekers. They also had a hide and seek relationship with the police who were always ready to pounce on them and their activities. He also welcomed the use of ICTs and e-learning, emphasizing that they bring them closer to the institution as well as closer to other colleagues in training and small-scale mining.

Interview with beneficiaries of small scale farming training programmes
They emphasized that the use of ICTs and e-learning make them more accessible to the learning and training materials on-line without incurring travelling costs and other related charges. They said training programmes about specific agricultural crops are outlined on line and are easy to follow and discussions are carried out on line thereby affording each other the chances to share views as well as interacting freely. They said it was easier to link up with like minded individuals locally, nationally and regionally. The farming methods and probable markets are also accessible on-line.

VIII. Conclusion
The overall uses of social media, ICTs, e-learning and multimedia communication are context dependent, especially in Sub-Saharan Africa and they are not linked to ODL. There are some ICT and on-line services that are not readily available in some parts of Africa hence collaborative and interactive learning maybe compromised. But one thing for sure is that there has been a massive proliferation of mobile phones and radios in almost all parts of Sub-Saharan Africa with the exception of few remote areas that still lack connectivity. The only major draw-back still lies in the linguistic mode of communication during training. English is still a dominant factor and the introduction of local and indigenous languages in these collaborative and interactive learning methods need to be speeded up. The other thing is that for collaborative e-learning to take place, groups concerned should not be disjointed and fragmented hence they need to be clearly and systematically structured syndicates with a symbiotic working relationship. Collaborative e-learning especially integrated with social media, ICTs, e-learning and multimedia communication is the way to if the SADC region is to move forward in developmental projects and empowerment.

IX. Findings
The training of small-scale miners and farmers should be diversified so that there are collaborations, networking and syndicates in executing these programmes. This is important to avoid overburdening of certain

few sectors or institutions. The African farmer or miner is not blessed with up to date equipment or machinery and worst still, we still rely heavily on the language of the former colonial master for professional communication to the detriment of our local languages. Africa is still stark in traditional mining and farming methods that lack integration and transformation. A number of African countries still lag behind in terms of literacy levels. Collaborative knowledge sharing platforms are still missing in regions like SADC, there are still countries' specific. Information delivery is still hindered by a number of viability factors which include outdated equipment, funding and lack of connectivity.

X. Recommendations

1. SADC countries need to harmonize knowledge sharing platforms and collaborate on the use of ICTs, social media, e-learning and multimedia communication in order to be closer to each other.
2. Syndicates or groups in small-scale mining and farming activities need to be diversified and keep in touch in order to continue updating each other on their successes and challenges.
3. Morden equipment and machinery need to be used and provided so that small-scale miners and farmers are not stuck deep into traditional tools and equipment.
4. The delivery mode of communication and training need to be diversified to include indigenous languages as well in ODL.
5. The use of social media, ICTs, e-learning and multimedia communication should not be for the privileged few but for every body.
6. Collaborative knowledge sharing platforms should be visibly active in the region (SADC) in order to reduce the distance in ODL.

References

[1]. "African Farm Radio Research Initiative (AFRRI)." Soul Beat Africa. June 28, 2013, http://www.comminit.com/en/node/264154/38.
[2]. Biaggi, S. 1999. Media Impact. New York. Words Worth.
[3]. Christiansen, C. 2011. Discourses of Technology and Liberation: State Aid to net Activists in an Era of "Twitter Revolutions." The Communication Review, Issue 3, 2011 p. 233-253.
[4]. Davies, M. 2008. "How New Technology can strengthen the Rural Markets." IFAD. http://www.ifad.org/events/lectures/tradenet/index.htm.
[5]. Flick, M., Von Kardoff, E. and Steinke, I. 2004. A Companion to Qualitative Research. London: Sage Publications.
[6]. Jallow, B. 2012. EMPOWERMENT Radio-Voices Building a Community. EMPOWERMENT HOUSE 2012. (www.empowermenthouse.dk)
[7]. Moodly, A., Galdwin, P. and Schneider, P. 2012. Manual for Community Multimedia Centers and Community Radio Stations in Namibia. Walter Sisulu University.
[8]. Pfukwa, R. 2007. Multimedia Communication, Harare: Zimbabwe Open University.
[9]. Uimonem, P. 2011. (Transnational.dynamics@development.net) Internet, Modernization and Globalization. Diss. Stockholm. Univ.
[10]. Uimonem, P. 2012. Digital Drama. Teaching and Learning art and media in Tanzania. New York. Rutledge.