

Towards parabiotic partnerships for access and discovery: Leveraging access to e-content within the framework of library consortia in Zimbabwe

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Abstract

The age of intelligence presents library consortia in Zimbabwe with an opportunity to innovate, reinvent and re-profile in order to effectively disseminate research and scholarly communication as well as keep abreast of current technological development in ICTs. The survival of the library consortia is hinged upon renewal and reinvention through innovation and creativity and collaboration with National Research Networks to facilitate access to research and scholarly communication. This paper seeks to investigate the extent to which library consortia as part of the technological infrastructure can leverage strategic partnerships with NRENS for enhanced access and knowledge discovery. The paper will examine how partnerships with research networks and other key stakeholders can benefit resource sharing initiatives. It will explore the extent to which library consortia in Zimbabwe can use strategic partnerships to facilitate access to research and scholarly communication. The paper will find out the strategies that are in place to promote resource sharing, for example, collaboration between NRENS and library consortia and open access initiatives. The treatise will also seek to find out how library consortia can work with NRENS to enhance resource sharing and e-content licensing. The paper will examine how library consortia can utilize research networks to support self-determined learning (heutagogical) through provision for wider access to scholarly communication.

Keywords: Access to content; library consortia; partnerships and open access, NREN

1. Introduction

The dawn of the twenty-first century has seen academic libraries in Zimbabwe grappling with numerous challenges namely; growing needs of users, adapting to the proliferation of digital technologies, rising costs of subscriptions to scholarly journals and high costs of internet connectivity (Chisita, 2016, unpublished). Csajbóket and Vasas, L (2012) argue that librarians are oblivious of the fact that their organisations cannot overcome all existing, imminent and impending challenges independently and hence the need for collaboration and partnerships. The proliferation of library consortia has become a common feature of the progressive learning societies of the world. The development of library consortia and National Research Networks (NRENS) in Zimbabwe was spurred by the need to ensure reliable access to information in

response to the seismic shifts in the global information and technological landscape. The phenomenal rise of library consortia and research networks in Africa gives credence to Francis Bacon's truism "knowledge is power" (Spedding, Ellis, & Heath, 1969, Vickers, 1992.). Access to information is critical because information /knowledge are referred to as "the thermonuclear competitive weapons of our time. Knowledge is more valuable and more powerful than natural resources, big factories or fat bankrolls. In industry after industry success comes to the companies that have the best information or wield it most effectively- not necessarily the companies with the most muscle" Stewart, 1997,)

The twenty first century calls for a fundamental rethink and a radical paradigm shift with regards to how academic and research institutions and Internet Service Providers (ISPs) will work together to enable affordable access to scholarly content as well coming up with innovative and practical strategies to support interdisciplinary and inter-institutional collaboration (Gibbons, 1994). Library policies and practices should enable resource sharing beyond national boundaries through optimum utilisation of ICTs infrastructure. The new mode of knowledge production and learning and research in the twenty-first century gives credence to the calls for radical inter-institutional and interdisciplinary collaboration (Gibbons, 2005).

Frodeman (2010.) quoted in Chisita and Abdullah (2012) posits that the second millennium has witnessed a transition from Kantian disciplinary to interdisciplinary or integrative knowledge production. The author states that the old model of knowledge production is no longer compatible with the technology-driven twenty first century characterised by the abundance of information and communication technologies, globalisation and accountability. The interdisciplinary and dynamic nature of librarianship renders it acquiescent to collaboration because of the of the dire need to keep up with current trends in the profession, for example, in the educational field , internationalization, standardization, technological progress, teaching methods ,research and development are critical issues (Chisita & Abdullah,2012,.) .

Kunda and Khunga (2014) highlighting the need for Higher Education and Research institutions to move away from an anachronistic silo or exclusive *modus operandi* which is anathema to the current knowledge dispensation which calls for deep and wide collaboration. The authors highlighted the urgent need for educational institutions to share resources and build bigger networks that support collaborative research in Africa. The success of Higher Education is dependent upon extend of interconnectivity and access to information. However, the high costs of subscription to e-resources and Internet connectivity makes it cumbersome to share teaching and research resources.

2. Technology and NRENS

The propagation of ICTs has precipitated the metamorphosis of academic libraries from an exclusive to inclusive mode of operation premised on resource sharing through library consortia serviced by robust internet connectivity. Library cooperation can be enhanced through incorporating NRENS in the development matrix. NRENS have the capacity to build infrastructural capacity to enable effective and reliable internet access and inter-institutional connectivity. Library consortia can also utilise NRENS to develop and manage the infrastructure that enables global scientific collaboration and access to digital scholarship to enhance learning, teaching and research. Darch (2000) and Zeleza (1996) expressed a techno-pessimistic view on the possibilities of African librarians benefiting from affordable internet services because of the commercialisation of internet service by commercial internet service providers and lack of access to appropriate content reflecting the scholarly views of people from third world countries. Darch (2000.) urged techno pessimists to be guided by Gramsci's

(1978.) “pessimism of the intelligence, optimism of the will”. He highlighted the pressing need to direct collective attention towards the present as a basis for its radical transformation .

The emergence of NRENs in Africa serves as a magic formula for the democratisation of access to scholarly communication, hence the need to invest and support such innovations for the benefit of Africa. The strength of NRENs lies in their social capital through radical partnerships at regional and international level, the use of common standards and protocols in order to build a common gateway to support the information needs of researchers and scholars. NRENs serve as dedicated internet infrastructure and service provider for the benefit of research and academic institutions. Its secondary role allows it to extend its service to Communities of Interest (COI) and Communities of Practice(COP), government institutions and other key stakeholders.

3. Library Consortia in Zimbabwe

Globally, library consortia are the vanguard in promoting and facilitating access to scholarly communication for the benefit of their primary stakeholders namely; students and researchers and lecturing staff. Udoumoh and Okoro, (2007) describe academic libraries as the nerve centre of the university. The academic libraries are viewed as a central point of academic life and as an institution that brings people together to share epistemic experiences (Abram, 2008) In 1997, Rosenberg conducted a review of the state of university libraries in Africa. The authors review highlighted the extremely poor, though widely varying, situations at different universities, both financially and otherwise. Ojedokun, and Lumande, (2005) state that the political dispensation of successive governments in African countries has not been helpful because of its emphasis on forcing institutions to compete *vis -a -vis* dwindling funding and lack of infrastructure to support teaching, learning and research

Zimbabwe is no exception to this development as evidenced by the formation of Zimbabwe University Library Consortium (ZULC) in 2002 and College and Research Libraries Consortium (CARLC) in 1999 to facilitate access to electronic journals in cost effective ways (Chisita, 2016).

The world over, modern forms of cooperation amongst academic libraries are buttressed by traditional forms of cooperation. However there is need for deep-seated collaborative initiatives that transcend traditional forms of cooperation based on Inter-library Loans (ILL) to networking for digitisation projects, shared subscriptions and storage. Anasi and Ali (2012) noted that cooperation among academic libraries in Africa was being affected by a number of factors including lack of funding, power surges, lack of common metadata standards, uneven development of libraries, poor bibliographic control, poor ICT infrastructure and lack of comprehension of the benefits that accrue from cooperation. NRENs provide the missing link that connects library consortia with other stakeholders including consortia, researchers and communities.

Partnerships and cooperation among libraries provides a stimulant for creative and innovative ideas to transform library services and products. Strategic partnership will determine the extent to which libraries are able to accomplish overall objectives. Dong et al., (2009:1) state that libraries enter into partnerships with other libraries in order to afford access to library resources at a time when budget continue to dwindle. Cost-benefit studies on the value of library consortia highlighted that cost savings and access to wider range of library resources were some of the advantages of collaboration (Scigliano,2002).

4. Library consortia and NREN nexus

However, library consortia in developing countries need to build parabolic relations with key stakeholders including NRENs and development partners. Such symbiotic relations will connect library consortia to NRENs that have the capacity build ICT infrastructure to enhance access to e- content. Accessing and using e-scholarly content is impossible without reliable and fast internet and good ICT facilities. Kotecha (2010) posits that the possibility of achieving reliable access to journals to support learning, teaching and research requires a series of layers, beginning with campus-level infrastructure and ICT human capital, national infrastructure (NRENs), regional interconnectivity between national networks, and connections to international networks. Echezona, and Ugwuanyi (2010) highlight the tremendous progress made by African libraries in establishing affordable Information and Communication Technology (ICTs) links to enhance Internet connectivity. Such progress is also attributed to the development of NRENs). NRENs play an important role in the development of network infrastructure to ensure reliable access to content. Network infrastructure is the critical structural capital that library consortia need to enable easier and affordable access to their institutional repositories and repositories of Electronic Thesis and Dissertations (ETD)

Harle, (2009) acknowledges the critical role of NRENs in developing the potential of high-speed cable connections for higher education and research. The author further notes that the needs of Higher Education and researchers have been downplayed by National frameworks within Africa which were designed for the commercial sector. Such frameworks are unaffordable for academic libraries since they are non-profit making organisations.

In 2014 The Zimbabwe Research and Education Network (ZIMREN) an Internet Service Provider (ISP) was launched with the main purpose of supporting research and educational institutions in Zimbabwe. ZIMREN also aims to provide for inter –institutional connectivity through an NREN that will be connected to the regional research education network (RREN) in Eastern and Southern Africa (UbuntuNet). ZIMREN was established as a result of the combined efforts of academic institutions under the auspices of Zimbabwe Universities Vice Chancellors Association (ZUVCA) with the technical support from UbuntuNet. While other countries within the region had managed to develop and operationalise their NRENS, Zimbabwe was still lagging behind by 2014 until the promulgation of ZIMREN. However, recent developments show that ZIMREN has been overtaken by the Zimbabwe Academic Research and Education Network (ZARNET) which recently joined UbuntuNet Alliance with effect from August, 2016.

The development of ZIMREN raised higher expectations of stakeholders since it promised to put in place a robust fibre-optic backbone dedicated to academic and research activities in institutions of higher learning (Chitanana,2014). The author conducted a study which explored the challenges and opportunities of developing ICT infrastructure to support learning and teaching in academic institutions. Furthermore the author highlighted the need for ZIMREN to use its collective bargaining power to negotiate improved bandwidth at a more affordable cost and to coordinate the development of national network infrastructures. In 2006, Chisenga bemoaned the high cost of internet connectivity “...Although Internet access is now widely available on the continent, the speed and reliability of Internet connections is a major challenge faced by most institutions...” (Chisenga, 2006)

Cooperation among libraries is not a new phenomenon but an ancient tradition dating back to inter -library loans (ILL) (Case, 2011). The author further argues that many libraries are beginning to comprehend that they are inseparable from the larger information system and that resource sharing is a critical component of the delivery of collections and services. Mulira (2010) points out that library resource sharing should be considered as a priority because of increasing costs of subscriptions to scholarly communication, dwindling budgets, growing

needs of users and the information explosion .Academic libraries are collaborating to realise economics of scale in acquisitions and access to high quality scholarly content. “Resource sharing has become a dynamic and increasingly strategic area of service that reflects a constantly changing information landscape and commitment libraries are making to empower their communities to discover and access information efficiently and effectively” (Bailey-Hainer, et.al).

Chiparaushe and Chisita (2016) point out that development of library consortia in Africa is a response to the desire to fulfil the aspirations of libraries by reaching out to many users and to be able to satisfy growing information needs of users *vis-a-vis* the information explosion. Libraries exist for a purpose and it is through an in-depth understanding of their mission and goals, that society can appreciate the great roles they play in socio-economic transformation of any society. The authors further argue that libraries should exploit the digital dispensation in order to realise their full potential through venturing into strategic partnership with regards to resource sharing and the production and licensing of e-content. However, it is through working with NRENs that library consortia can realise the goal of facilitating affordable access to e-content to support the learning, teaching and research activities.

5. Library consortia, NRENS and development partners

Library consortia in Zimbabwe also benefit from INASP initiatives in promoting access to e-resources and open access and capacity building in maintaining ICT infrastructure and licensing and negotiations for e-content. Burnet (2015) states that in 2013, INASP launched a new flagship programme, called “Strengthening Research and Knowledge Systems” (SRKS). The programme enables partner countries to access scholarly content in support of teaching, learning and research. INASP has been working with NRENS to build capacity amongst campus engineers in order to increase the reliability of networks as well as empowering staff to maintain research infrastructure (INASP, 2016). Furthermore library consortia can also benefit from collaboration with NRENs to improve access to e-scholarly publications in academic institutions. A combination of the technical skills of NRENs and content knowledge of librarians and consortia is critical in mapping strategies to widen and deepen access to scholarly content in support of learning, teaching and research. The main objective for the INASP initiative was to build the capacity of NRENs and develop a sustainable model for continuous education and training for Higher Education with regards to developing campus infrastructure.

6. Leveraging access scholarly content: Open Access Initiatives

Library consortia should cooperate with NRENS to improve the visibility and accessibility of their ETD repositories which have now become the new medium for disseminating scholarly content (Gul,et al, 2015).Such technologies do not only enhance visibility of scholarly content but also knowledge discovery. Chisita and Chiparaushe (2016) note that ICTs are enabling enabled academic libraries to develop digital platforms for end users, and the public to connect each other. These platforms enable easier **accessibility and discoverability** of ETD content. Singh (2015) describes ETDs as rich and unique sources of information “...untapped and under-utilised asset...”

The Open Access culture has strongly gripped academic institutions in Zimbabwe because of the efforts and commitment of library consortia namely ZULC and CARLC. The proliferation of Institutional Repositories (IRs) and ETDs provide tangible evidence of the growing power of Open Access in Zimbabwe. ZULC has collaborated with Electronic Information for Libraries (EIFL) to promote Open Access among academic libraries in Zimbabwe. ZULC

adopted Open Access policies in 2013, following the successful ZULC and EIFL OA Advocacy Campaign “Say “No! To Secret Knowledge: Support OA”(EIFL, 2013) .Currently, only eight academic institutions subscribing to ZULC and two affiliate members have their IRs enlisted on the OpenDOAR(2016) Library consortia should collaborate with NRENS to improve visibility and accessibility of their intellectual content. Chisita and Chiparaushe (2016) noted that the reason why some academic institutions were not listed on the OpenDOAR was because either their IRs were still in infant stage of development or they had not yet established one. Collaboration with NRENS can help in the development of infrastructure that support IR’s and ETDS. In 2015 there were two Zimbabwean academic journals from the University of Zimbabwe which were enlisted on the Directory of Open Access Resources.

The endorsement of Open Access policies by members of the Zimbabwe University Library Consortium (ZULC) has given credence to the importance of the Open Access Initiatives and accessibility of ETDs. The development marks a victorious start in the battle to conquer knowledge frontiers and reposition the country in the global information / knowledge landscape. However, academics are working with NRENS and other development partners to build a robust network that will facilitate easier and faster access to scholarly content. Furthermore, if the existing ETDs are not interconnected they will remain isolated islands of scholarly content because of lack of interoperability (Schöpfel & Prost.).The authors highlighted the need to use ETDs as special vehicles for democratising access to scholarly communication. They also proposed a new non-anachronistic and non-elitist model for disseminating or sharing scholarly communication for the benefit of all. Library consortia can work with NRENS to build interconnected and interoperable systems or networks for the benefit of scholars, researchers and staff. ZIMREN and ZARNET has been working with ZULC and CARLC to promote and enhance access and sharing of digital content .Library consortia are digitising their local content and NRENS should support such initiatives through providing the critical infrastructure for hosting a central repository that provides nationwide access.

Such systems will improve discoverability and accessibility. The future trajectory of ETD envisages an open-access driven and interoperable global system for accessing and exchanging scholarly content to support learning, teaching and research (NLETD, 2016).

Chisita and Chiparaushe (2016) advocate for a creative library partnership model which allows the consortium to transcend beyond the traditional partnerships based on resource sharing only. Such a model of library partnership would be a multi-stakeholder partnership incorporating different types of libraries, government, artists, NRENS and the public for purposes of ensuring that the consortium achieves “high-impact” with “low-cost” tools (Chisita and Chiparaushe, 2016). Partnerships between library consortia, NRENS, RENs, development partners, ISPs, and other key stakeholders is critical in building a sustainable digital infrastructure that supports learning , teaching and research in Zimbabwe. Library consortia can benefit from the efforts of NRENS with regards to accessing high speed network connectivity to boost education and research areas in Zimbabwe

The viability of NRENS is dependent upon their ability to innovate by collaborating with key stakeholders including library consortia, librarians , policy makers and users in order to provide quality service. Burnett (2015) urges NRENS to offer more in order to gain a competitive advantage over commercial ISPs. The author emphasises the provision of high quality service as one characteristic of a competitive NREN. Mutual beneficial partnerships with library consortia will help democratise access to education through supporting self directed learning.

The adoption and adaptation of critical institutions both private and public are no longer an institutional choice but a developmental trajectory necessity which is highly inevitable in order

to adapt to the modern trends in the realm of Information generation , transmission, storage and preservation. Parabolic partnerships will unlock the logjams that have hindered partnerships for access and discovery hence leveraging access scholarly to e-content within the framework of library consortia in Zimbabwe. Through working with NRENS and other key stakeholders, library consortia in Zimbabwe can leverage their intellectual capital for the benefit of scholars and researchers irrespective of time and space. Such collaboration will usher in new egalitarian information dissemination models with regards to information discovery, delivery and uninterrupted access. Such initiatives should boost the quality of research and teaching in Higher education.

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