Towards digital inclusion in South Africa: the role of public libraries and the way forward

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Abstract

Digital inclusion continues to be a recurring theme and pose serious challenge in achieving the United Nations 2030 Sustainable Development Goal. Factors such as growing population, age, gender, education, economy etc., continue to play a major role in inhibiting people's digital access. As a result of the instant exchange of information, people now have access to knowledge, information, data, and other useful things to them than the world has ever recorded in history. People then see the need to be digital inclusive and to be part of the fascinating historical development of ICTs. To enhance people digital inclusiveness, the role of public libraries cannot be overemphasized. This study explores the role of public libraries in making ICTs more accessible to the populations of South Africa, and how these libraries increase ICTs relevance to people's lives, needs, aspirations, and ultimately, in bridging the digital divide. This study adopts the digital divide approach in discussing the state and role of public libraries in South Africa in bridging the digital gap among its citizens. The authors integrate data from studies on digital inclusion and from Public Library Access studies to gives clearer picture on the issue of digital inclusion and the role of public libraries in South Africa. This study found that digital inclusion goes beyond internet literacy and computer access, but it signifies technical proficiency and people's ability to access appropriate digital services and contents as and when needed. This study also found that the public libraries play an indispensable role in providing and sustaining digital inclusion for people across South Africa, however not without some challenges.

Introduction

The global demand for digital inclusion has continued to grow exponentially across the world especially during the era of technology invasion into all facets of human life. The demand for digital inclusion is more prominent in the underdeveloped and developing continents of the world of which Africa is one. Many countries in Africa have continue to wallow in the quagmire of unequal access to and use of ICTs and this goes against achieving the United Nations 2030 Sustainable Development Goal of 'leaving no one behind' (United Nation, 2015). Undoubtedly, digital inclusion has been a recurring theme in education,

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politics, and other sectors because the unstoppable penetration of ICTs into the nooks and corners of the world.

The term *digital inclusion* describes the ability of people and groups to access and use information and communication technologies (Rice and Pearce 2015; Padilla *et al.*, 2015). Digital inclusion highlights the various factors that affect access to and use of ICTs and the role that each of those factors play. This study is aware of the disparities of the impact of people's ICTs access time and the part that innovation clusters play in the digital gap. As such, digital inclusion assumes two roles: one as a communal programme that offers to access to ICTs access to people, and two, the economic obligation for all communities to benefit from ICTs access through the establishment of public libraries.

The establishment of public libraries in South Africa is an initiative to make sure that people in the community have access to a community space where learning and access to information can continue outside the four walls of the classroom. This would assist those learners whose schools have no libraries in place or who do not have access to the school library outside school hours. (Mwathwana *et al*., 2014; Clyde, 1981). This indicates that public libraries serve dual purpose: it is a resource as well as educational place for the community. It is important to note that rural communities are not left out of the establishment of these libraries as the libraries are a means of eradicating information poverty and of keeping the rural dwellers up to date with information (Stilwell, 2016; Mojapelo, 2020). Mathiesen (2013) argues that whenever people of the community are unable to access public libraries, that they are being denied one of their rights as stipulated in the constitution of the Republic of South Africa, which states that access to public libraries is a fundamental human right. It is therefore logical to question why many communities in South Africa still need libraries, in such times when Google and other search engines are readily available for people to access information. Gibbs, *et al*. (2021) report that in South Africa, data are relatively expensive, and for this reason access to the internet for the purpose of getting information is sporadic. This then requires people to use public libraries which become valuable resources in accessing internet through the free Wi-Fi services. In the same vein, the high cost

of books makes the public libraries a possible equaliser by offering people access to information in different formats (Jiyane and Onyancha, 2010; Mahala, 2010). Public libraries do not only serve the traditional function of providing access to books and other related material for people to read but they also assist people in coming together providing them with opportunities in form of online practical guidance and support.

Though it is the responsibility of the local authorities to provide the public libraries, both provincial and municipal authorities are jointly involved in their funding and governance (Strand and Britz, 2018). Basically, there are two typical forms of public libraries: the affiliated and non- affiliated. The affiliated libraries are the responsibilities of the local authorities which provide human resources and provincial authorities provide materials, award grants, and help with infrastructural and professional development. The non-affiliated libraries are situated in bigger city centres and are not part of the services provided by the provincial authorities (Mphidi, 2016). A recurring theme that has emerged during the years is the inconsistent administration of public libraries in South Africa and this has contributed to the inadequate service delivery in libraries across the Republic; thus, the unequal access of people to public libraries in South Africa is still a challenge.

Methodology

A review of existing studies on digital inclusion and Public Library Access was done by this study to obtain a clearer picture on the issue of digital inclusion and the role of public libraries in South Africa. In addition, statistical analysis from existing studies was done to elaborate on people's access to information and communication in South African public libraries. A further analysis of people's access to libraries across South Africa was captured. The authors in this study made efforts to discuss digital inclusion, unravel the status of South African public libraries in promoting digital inclusion, the challenges confronting public libraries in promoting digital inclusion, the efforts of public libraries at bridging the digital divide, discuss future trends, and conclude the way forward to bridge the digital divide in South African public libraries.

Theoretical Framework: Digital Divide

The world is now in the centre of rapid transformation, prompted by globalisation and instigated by the rapid accelerated development of digitalisation that has made possible rapid transmission and use of information and technology (Furstenburg, 2007). The prevailing amalgamation of these forces is fast transforming and redefining the way humans live and conduct activities. The digital divide refers to the discrepancies that exist in developing countries in relation to people's access to ICTs, its uses and how these disparities create a divide between those who have access and those who do not have access to ICTs (Becker, 2020; Schweik *et al.*, 2017; Huh *et al.*, 2018; Adedokun *et al.*, 2019). These disparities that exist in society with regards to access and use of ICTs facilities are influenced by the following constituents: gender, age, race, education, economic status, and geographical location (Bennett *et al.*, 2020). The divide takes cognizant of the availability of ICTs facilities, the ability to access, and the confidence to use digital technologies (whether old or new) effectively (Van Dijk, 2012). It is challenging to measure the digital divide in indigenous rural South Africa due to these areas are often ignored in various statistical coverage (Cox *et al.*, 2018). Given the above-mentioned disparity regarding statistical coverage, the digital divide may be one of the possible influencing factors responsible for the continuing gap in the quality of information access between the user of public libraries in the rural and urban communities of South Africa.

The following section will provide a summary of the digital divide types identified by this study and how they impact digital inclusion and people's access to public libraries in South Africa.

Gender divide and ICT access

The South African 1996 constitution stipulates that everyone, whether male or female, has equal right to access knowledge and information (South Africa, 1996). Hence, the role of public libraries is to make sure that both male and female have equitable access to the resources the libraries offer. Gender as one of the factors that contribute to digital inclusion/exclusion has posed a serious concern over the years.

This can be attributed to the issue of patriarchy, where the male gender is believed to hold power in the community. Women, on the other hand, are considered as second-class citizens as they mainly spend their time doing house chores and taking care of the children. Sandy (2008) refers to gender divide as a situation in which girls and women have little or no access to ICTs. The current system of government, politics, armed forces, education, etc., has revealed that inequality as regards to gender exists in a multifaceted system of relationships and is perceived in almost every human practice. The following is stated by Connell (2003:3-4) with regards to the gender system:

> Gender relations are an interactive system of connections and distinctions among people (and groups of people) – what happens to one group in this system affects the others and is affected by them. Gender relations are not superficial, but are deeply embedded in organisational routines, in religious and legal concepts, and in the taken-for-granted arrangements of people's lives (such as the distinction between "home" and "work"). Gender relations are multi-dimensional, interweaving relationships of power, economic arrangements, emotional relationships, systems of communication and meaning, etc.
> Gender systems are diverse and changing – they arise from different cultural histories in different parts of the world, have changed in the past and are undergoing change now.

Elbers (2019:4) argues that a society that will be equal in terms of gender will put in place a system that encourages profound institutional change as well as change in everyday life and individual behaviour [and to achieve] this goal requires widespread support, including significant support from men and boys.

A study by Pashapa and Rivett (2017) reveals that female household leadership is linked to females' ICTs access. The study further laments that female who are head of homes in rural areas have less access to ICTs than their female counterparts in their urban areas. This indicates that the location of females together with their gender role imbalance affect their access to ICTs. This is quite worrying as it seems being a female breadwinner is a social crime in the face of social and economic

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hardship.

Another study by Mushtaq and Riyaz (2020) on the relationship between digital and gender divide in the University of Kashmir found that ICTs may exacerbate the existing inequality as regards females unless the dimensions of gender are recognised, understood, and tackled accordingly. They also suggest the need for ICTs policies to favour females rather than imposing on them to adopt the existing one which is rather gender selective in terms of training, access, and significance.

Age divide and ICTs access

The age divide is a two-level phenomenon of the digital divide between the younger and the older generation of ICTs users. One of the levels according to Nimrod (2019) has to do with users' access to ICTs which differentiate users and non-users or heavy and light users. The second level relates to variance in knowledge, application, and use of ICTs.

It is historically believed that the older living generation of adults are considered to be individuals whose activities concerning economics, politics, social, etc. are diminishing (Nimrod, 2020). This historical view of older adults tends to undervalue their knowledge and experience, and, in a way, they are no longer active in person when it comes to social development. Kalache and Gatti (2003) state that public policy at the moment is directed towards older adults so as to promote the culture of "active ageing" and to improve their life quality. The above policy also applies to both individuals and population groups and allows people to realize their potential for physical, social, and mental well-being throughout the life course and to participate in society, while providing them with adequate protection, security, and care when they require assistance (WHO, 2002:12).

The culture of 'active ageing' advancement will indisputably promote access and use of ICTs among the older generation of adults who are often considered to be reliant on the younger generation when it comes to engagement with ICTs. Miwa, *et al*. (2013) provide a convergent view on age and access to ICTs. They maintain that older people should have access to information resources on the internet as many of them are adult- schooling and they can have equal access to online libraries, search engines and other resources as the younger ones.

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In a study by Russel *et al*. (2008: 78), older adults at a later stage of their lives are faced with some challenges regarding the access and use of ICTs and these include "anxiety about technology (technofear), lack of interest, health or disability barriers, lack of opportunity and training and cost". They also argue that in contrast to the belief that experience is a function of age, the digital age seems to be completely different, with the younger generation being more technology-savvy than the older generations. This then necessitate for a drastic measure to be taken towards equipping the future and present elder generations with access to ICTs, so that former, who already have digitally knowledge are not faced with challenges of digital divide and exclusion that come with the compelling/demanding need for ICT-assisted activities in the present-day lives of humans.

Education divide and ICTs access

The worldwide adoption of ICTs is quite visible in many aspects of life, including, for example, in communication and in education (Adedokun, 2020). This suggests that education is not left behind in the reach of ICTs and therefore may serve as a requirement for many people before they can engage meaningfully with and have access to ICTs. The term *education divide* is used to refer to the disparity that exists between people who have access to education and those who do not. This disparity that exists between people who have access to education and those who do influences their access and skills related to ICTs and other digital contents (Malhotra, 2014). A similar stance is taken by Chen and Liu (2013) who affirm that education plays a pivotal role because it is the main prerequisite for access to ICTs. The above submissions suggest that education is an important prerequisite for people to access ICTs. The level of education a person receives will proportionately affect their access and use of ICTs when they are ready to make use of it. More often than not, the education divide with regards to ICTs is experienced more by rural dwellers than their urban counterparts (Lu *et al*., 2015, Mahmud *et al*., 2021, Niyigena *et al*., 2018 and Bandyopadhyay *et al*., 2021). This is due to limited or no access to basic infrastructure, education, and other resources that are critical to access to ICTs. In order to bridge the *education divide* regarding ICTs, the following steps should be taken as recommended by Idele and Mboup (2019:413):

Making ICT[s] infrastructure economically, socially, and environmentally sustainable for learning and knowledge sharing is the key in driving the African cities towards universal education. With the desire to digitize Africa […], this trend can be boosted, and the availability of an internet connection can be generalized way before the year 2030, and this will be in line with the increase in education and literacy observed in most African cities during these past 20 years.

However, Herdin and Egger (2018) look beyond connectivity as a way of bridging the education gap; they believe that cooperation from the people should be achieved. The people should be able to trust ICTs as soon as they have access to them and get over their fears of "technophobia". According to them, promoting trust regarding the use of ICTs will break the barriers that prevent people from successful participation in fair ICTs usage.

Economic Divide and ICTs access

The term 'economic divide' refers to the notion that some people are unable to access ICTs as a result of not being able to afford to purchase ICTs facilities such as computers, mobile phones, internet data, E-libraries, and so on to get access to information (Slaviero, 2011) and this is largely caused by the disparity in income of the people (Okoli and Mbarika, 2003). The economic divide does not only affect people's access to ICTs facilities, but it also cuts them off from getting timely information. Kluza (2019) argues that economic divide more often than not is influenced by the geographical location of people. This is corroborated by Ohiagu (2013) who states that economic divide arises as a result of "geographical location separating most developed nations from the developing nations or residents of rural areas who have little or no access to the internet and many other [ICTs facilities]". This further suggests that there is a relationship between economic divide, geographical location, and access to ICTs. Slaviero (2011) and Ohiagu (2013) submit that economic divide can be tackled by provision of community-based equipment that can be accessed under controlled conditions to underserved communities and therefore communication policy makers should make provision of functioning broadband and make ICTs facilities their priority to bridge the digital gap between the underserved and the privileged communities.

Public Libraries in South Africa – a brief historical context
Public libraries are institutions established to cater for the information

needs of the members of community and groups. The information needs of members of the community and group are supported and guaranteed by the Bill of Rights of the Republic of South Africa in its Chapter 2 (South Africa, 1996). The Apartheid policies impacted on the establishment and distribution of public libraries in South Africa as public libraries in South Africa were established along racial lines.

Prior to 1994 (before South Africa transitioned from Apartheid rule to a democracy), unequal access to education was the order of the day in South Africa and the Bantu Education Act, 1956 (No 47) are some of the racial segregation techniques established by the government of the National Party from 1949. The Bantu educational system promoted differential access to education and education institution such as schools and libraries, based on race (Bangani and Tshetsha, 2019; Mehra and Gray, 2020). The spate of inequality was glaring under the Bantu Educational Act when schools and libraries used by black people were poorly funded compared to the ones attended and used by the whites (Mugwisi *et al*., 2018; Msimango, 2019). Systemic discrimination was also evident during the 1970s, when the "[p]er-capita government spending on black education slipped to one-tenth of spending on whites" (Moyo 2004). Another pertinent racial challenge faced by public libraries before 1994 was that of understaffing; this widened and exacerbated the gap between the blacks and the whites (Joo *et al.,* 2019).

It is, however, commendable to note that there has been drastic socio-political change in the access to public libraries since 1994 (Strand and Britz, 2018). Thanks to democracy, it is enshrined in the South African Constitution of 1996 that access to public libraries is made equal for all citizens, regardless of race, creed and colour. Some challenges in the library system persist because of indelible historical mark of apartheid which is still felt. In an attempt to deal with these setbacks decisively, the Arts and Culture Department identified the areas that were either not served or underserved by public libraries services - these, of course are the rural communities, informal settlements, and the townships (Mthembu, 2019). The provincial governments are accountable for the funding and equipping of public libraries, however, the three tiers of government - local, provincial, and national - all together play important roles in tackling the inconsistencies that exist in the public library system in South Africa. To this end, public libraries continue to act as

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compensation facilities for the unavailability of school libraries and play an important part in bridging the information gap within the communities they serve. As part of the public libraries' effort in delivering authentic and adequate information and communication services, there are uncapped internet connections in place within the libraries, this is critical toward tackling the digital divide that exists within the South Africa communities.

The process of bridging the digital divide in South Africa through public libraries services is still ongoing. Some of the processes being embarked on include the improvement of public libraries that facilitate the access to information such as provision of uninterrupted internet access, the procurement and installation of computer systems, and protection, community accessibility improvement, staff capacity building and development in ICTs, improvement of information ethics among libraries users, adequate funding, and maintenance of public library premises at all times (Mphidi 2016). This indicates that public libraries have an important role to play in the provision of timeous information to the people of the society and thereby they hold an advantageous position in ensuring that information poverty gap is bridged. Also, there is an indication that public libraries in South Africa are on a journey to tackling the challenges associated with the digital divide.

Status of Public Libraries in South Africa

South Africa public libraries, just like others around the world, is saddled with the onus of providing education, information, culture, literacy, and recreation for members of the community and groups free of charge. Public libraries in South Africa can be historically traced to 1818, when the South Africa Public Library was established (Walker, 1922). This later metamorphosed into the National Library of South Africa (NLSA) in 1999 and has remained the South Africa's custodian of collective national heritage materials and the reservoir of published output materials (Ledwaba, 2020). There are currently hundreds of articles and books on the developmental phases of public libraries of the Republic, all of which discuss the evolution from private reading clubs to public and private library subscriptions which are funded by the government, to full free public libraries that are created by under the democratic system of

government (Ralebipi-Simela, 2015). The emergence of public libraries in South Africa could be traced to Christianity (Sales, 1981). Allred (1972) argues that the ideas behind public libraries are deeply rooted in the ethics guiding Christians in the 17th century. The first ever library subscription for public libraries was done in 1829, eleven years after the establishment in Cape Town and to this end it was "the first free tax-supported library in the world" withs objective related to that education (Kesting 1980; Asher 1942). By 1874, there were 34 other libraries which were also operating on subscription and funding was provided for those libraries on regular basis by the Cape Colony government while another three had been established in KwaZulu-Natal (South Africa, Department of Arts and Culture, 2013). The following table captures key historic event of public library in South Africa from 1761 until 2013. The table information is compiled from Mostert (1997), Dick (2007) and Fourie (2007).

1761	Joachim van Dessin bequeathed his book collection to the Dutch Reformed Church with the express wish that it should be used as the foundation for a public library.
1803	Johannes van der Kemp mooted the idea of establishing a book collection in the Bethelsdorp Missionary.
1818 - 1820	Van Dessin's collection formed the basis of the newly formed South African Public Library. It was built by Lord Charles Somerset, using funds raised by a tax on the wine industry.
1874	The government of the Cape Colony started supplying modest funds for library services. It also granted official recognition to subscription libraries.
1910	The Financial Relations Act of 1913 provided official recognition that provincial councils were to be responsible for the administration, development and financing of public libraries.
1919	The South African Library for the Blind is established in Grahamstown by Josie Wood. The library started with a collection of donated braille books.
1928	Carnegie Memorandum recommended, among other things, free library services. At the Bloemfontein Library Conference, the recommendations were discussed, and some adopted.

1937	The Interdepartmental Committee on Libraries of the Union of South Africa recommended free rural and urban library services, library services for juveniles, library services for the blind, non-European services, university libraries, departmental libraries, national libraries, copyright libraries and training and legislation.
1954	Services for the black population were transferred from the provincial councils to the Department of Native Affairs. They subsequently fell into disarray due to a lack of financial support.
1959	An Action Committee was appointed, and it requested the Minister of Education, Arts and Science to convene a National Conference of Library Authorities.
1962	The Programme for Future Library Development was adopted by the National Conference of Library Authorities.
1967	The National Library Advisory Council was established. The council was abolished in 1987 when government decided it was not necessary to have a national policy on libraries.
1983	The South African Bibliographic and Information Network (Sabinet) was established to support, among other things, bibliographic control and computerised cataloguing.
1985	UNISA commissioned a report into the potential value of public libraries. The report was made available in 1998.
1992	The National Education Policy Investigation (NEPI) report became available. The report recommended funding public libraries and information systems that can support education.
1993	Local Government Transition Act listed libraries as a function of metropolitan municipalities but did not specify a role for non-metropolitan local councils.
1993	The Interim Constitution of South Africa did not assign public libraries to provinces, or to any other sphere of government.
1996	A working group on the National Libraries of South Africa was established.
1997	The 1996 Constitution came into law. Public libraries other than national libraries were assigned to provinces as an exclusive legislative competence in Schedule 5A.
1997	The legal deposit committee was established in terms of the Legal Deposit Act.
1998	The South African Library for the Blind Act amended the legal framework for the South African Library for the Blind.
1998	The National Library of South Africa Act amended the legal framework for the National Library of South Africa (NLSA).

1998	The Municipal Structures Act came into law. Section 84 did not include libraries of any sort as a function of municipalities.
1998	Free State Provincial legislature passed the Free State Libraries Act. It was passed without an approved implementation plan.
2001	The National Council for Library and Information Services (NCLIS) was established in terms of the NCLIS Act. The Council first met in 2004.
2001	Limpopo Provincial Legislature passed the Limpopo Provincial Libraries Act. It was not costed before it was passed and therefore remains unfunded.
2003	Eastern Cape Provincial legislature passed the Eastern Cape Libraries and Information Service Act.
2006	The Department of Arts and Culture commissioned a review of library services in South Africa.
2007	The Library Services Conditional Grant was introduced and subsequently became a crucial source of funds for public libraries.
2010	KwaZulu-Natal province started a pilot to provincialize libraries services.
2010	Western Cape province introduced the Municipal Replacement Fund as the start of the process to fully fund municipalities for expenditure on libraries.
2011	Free State Provincial Executive Council adopted a resolution that t h e province will provincialize libraries unless municipalities choose to deliver the service.
2013	The Public Libraries and Information Services Bill was costed.

Table 1: Historic events of public library in South Africa

On the historic outline of public libraries in South Africa, i.e., from ownership to funding and to other developmental phases, Ehler (1986: 143) states that:

> Historical writing on South African libraries shows a pattern of progression from private reading societies to private and public subscription libraries subsidized by the government, to Carnegie-funded libraries, to free public libraries with legislation to secure their financial viability.

The NLSA as noted earlier was established in 1999 from the merger of two previously established libraries: the State library situated in

Pretoria and the South African Library situated in Cape Town. The role of NLSA is overseen by the National Library Act of 1998. The Act specified administrative provisions, national mandates, and purpose of the NLSA[3]. The democratically specified strategic roles of the NLSA as contained in its Act of 1998 [Section 4 (2)(b), (c), (f)] are as follow as compiled by Tsebe (2010: 8):

(a) To provide appropriate information products and services.
(b) To provide leadership, guidance, and coordination in cooperation with other librarie.
(c) To undertake planning and coordination in cooperation with other LIS.
(d) To present, in consultation and cooperation with appropriate educational institutions and professional bodies, courses of training and education relating to the functions it performs.
(e) To undertake research and development.
(f) To liaise with libraries and other institutions in and outside South Africa.

The above roles of the NLSA indicate that the NLSA is an institution that is saddled with the responsibility of protecting and preserving the overall cultural and historical heritage of South Africa and other countries of the world through establishing, equipping, and staffing of public libraries across South Africa. The NLSA, since its establishment and backing by the constitution of the Republic of South Africa, has undoubtedly continue to strive to make a difference in relation to the above specified roles. NLSA in its maiden yearly report that covered the first one and a half year of its establishment, restated its commitment to serving the people and communities of South Africa. In a bid to serving better, NLSA itemised four strategic guidelines which would serve as its module operandi for 'transforming society and uniting the nation' as encapsulated in 'social cohesion and nation building'. These strategic guidelines are captured below as outlined by Ralebipi-Simela (2015: 7):

It is worth noting that the NSLA in its strategic guidelines touched on the issue relating to bridging the digital divide (item 2, Table 2 above) which reads:

> "The National Library serves the people of South African by providing a bridge from the past and the present situation, which is characterized by gaping disparities in access to information

and information technology (IT), to the future information society and in fact the future knowledge society" (Ralebipi-Simela, 2015).

At the moment, the strategic guideline of the NSLA identified above is being achieved through public libraries across South Africa. This study will now delve into the state of public libraries across South Africa with regards to community usage and access to the libraries.

The below latest publications by the NLSA (2017) and Statistics South Africa (2020) indicate the number of South Africa public libraries versus population size of each of the provinces.

Province	Population Size Estimate by Province	% Of Total Population	Total Number of Public Libraries
Limpopo	5 852 553	9.8	97
Northwest	4 108 816	6.9	11 2
Mpumalanga	4 679 786	7.8	11 5
Free State	2 928 903	4.9	18 2
Northern Cape	1 292 786	2.2	21 5
Eastern Cape	6 734 001	11.3	23 5
Kwa-Zulu Natal	11 531 628	19.3	26 6
Gauteng	15 488 137	26.0	28 5
Western Cape	7 005 741	11.8	37 2
Total	59 622 350	100	18 79

Table 3: Population size per province versus public libraries available (National Library of South Africa, 2017; Statistics South Africa, 2020)

In the Table 3 above, it is surprising that the Gauteng province which records the highest population (15, 488, 137/26.0 per cent) and the

smallest land mass records only 285 libraries whereas Northern Cape which records the lowest population size (1, 292,786/2.2 per cent) with a considerably greater mass, is recorded to have relatively more public libraries compared to Gauteng. As noted in the Table 2 above, the population size as well as the geographical spread of the provinces are not proportionate to the number of public libraries in the provinces. This view above is also shared by Ledwaba (2018:87) who states that "the total number of public libraries per province is not proportional to the population size per province". Despite the disproportionate distribution of public libraries across South Africa provinces, one thing that stands out is the availability of free access to internet bandwidth for library users in all the public libraries, regardless of the geographical locations of such libraries. The provision of internet connectivity is an important distinction that South Africa public libraries have been able to maintain and sustain to bridge the digital gap in the country.

Public libraries in South Africa, however, are confronted with several challenges. One of these challenges as described by Masenya (2020) is that public libraries in South Africa lack up-to-date technologies that can archive in several digital formats such as emails, audios, videos, graphic and texts to make them accessible as and when they are needed. This makes it difficult for public library users to get access to information that they need, and it poses a threat to one of the strategic guidelines of NSLA which is "levelling the playing field for access to information". Another challenge that public libraries are being faced with is that of assessing library services. Strand and Britz (2018) lament that there is no uniformity when it comes to data collection which is a function of decentralised planning and will eventually lead to poor and inadequate training of members of staff of public libraries. According to Strand and Britz (2018), this challenge which persists could exacerbate information and digital inequality and consequently aggravates poverty among the people of South Africa. Another major challenge confronting South Africa public libraries is that which relates to bandwidth allocation. Ledwaba *et al*. (2020) state that due to inadequate bandwidth capability in public libraries, accessing the internet for the whole month is difficult as the bandwidth gets depleted before the end of the month. This, therefore, makes it difficult for the library user to have access to alternative internet services as the cost of buying data is generally high.

On the other hand, there is an erratic supply of electricity in some communities, particularly remote rural areas. This prevents libraries in such location from accessing the internet and this further widens the digital gap between the rural and urban dwellers.

The role of public libraries towards digital inclusion in South Africa
Digital inclusion in the 21st century has often been used to describe an attempt to ensuring that disadvantaged individuals and group have access to, requisite skills to use ICTs in a fast-growing information society. The NLSA through the public libraries across South Africa, has consistently ensured that all individuals, regardless of location, race, gender, education, etc., have access to information through its library services. The role of public libraries in ensuring that "no one is left behind" has continued to be its top priority. In this regard, Satgoor (2015) proclaims that South Africa public libraries has been redefined in that they are continually moving away from the custom of them being recreational facilities to educational facilities as the libraries are in active support of primary, secondary, tertiary educational concerns of individuals in the society. This role indicates South Africa public libraries in bridging information poverty among the people of South Africa.

Another role of public libraries in South Africa is to encourage digital inclusion is the establishment of programmes such as the one established in KwaZulu-Natal province of the country called "Ulwazi Sharing Indigenous Knowledge". This programme which consists of an online repository of indigenous knowledge was fused as an integral part of local public library and information services (Greyling and Zulu, 2010). The online resource which was first developed in Durban addresses the deficiency associated with access to ICTs and insufficient documentation and preservation of cultural heritage of South Africa. This initiative spearheaded by public libraries in Durban has the ability to improve digital inclusion by not only providing people with access to resource but also affording members of the society the opportunity to create it. This indicates public libraries' role in using her online facilities to encourage preservation of indigenous knowledge and at the same providing empowerment opportunities to the members of the society.

South Africa currently has 1879 public libraries that are operated by nine provincial library services for an overall population of 59 million

(see Table 3). It is worth noting that there is considerable variation in the provincial public library services in terms of geographics, allocation and demographics distinctions. The geographic location and spread of the public libraries hinder provision of services and allocation of resources. The high concentration of public libraries in the urban metropolis of Western Cape, Gauteng, Kwazulu-Natal, Eastern Cape and Northern Cape are of a function of already established libraries facilities during the colonial era in South Africa. At the moment, the nine provinces through the assistance of the South African government and the provinces, now enjoy the "conditional grants" which are dedicated to establishing modern library facilities and providing essential library services (Satgoor, 2015). The conditional grants according to Satgoor (2015:104) are being used to accomplish the following:

i.   build more libraries and to upgrade library buildings,
ii.   buy, equip and deliver mobile libraries and container libraries for communities,
iii.   appoint more staff and extend opening hours,
iv.   expand and improve ICT connectivity,
v.   develop and implement a new provincial ICT system,
vi.   upgrade security and improve library assets.
vii.   buy more library material,
viii. stock more books in indigenous languages.

While the above identified uses of the conditional grants has not been fairly implemented in all the various geographical locations in South Africa, it is important to note that the role of public library in South Africa is rapidly changing to absorb the present cultural, economic, social and technological setting. In addition, the above further stress the role of public libraries as "information gateways for uninterrupted and equitable access to information and knowledge resources just-in-time, fostering "Right to Information"; "Information for All (IFA)"; "Information for Development", e-governance, which are vital for achieving the Millennium Development Goals (MDG) in an accelerated pace" (Koneru, 2008:1). Koneru's submission aligns with the UNESCO (2000:1) manifesto which reads:

> [A] public library is an organisation established, supported and funded by the community, either through local, regional or national government or through some other form of community organisation to provide access to knowledge, information and

works of the imagination through a range of resources and services on the basis of equality of access for all, regardless of age, race, sex, religion, nationality, language or social status. Specific services and materials are provided for those users who cannot, for whatever reason, use the regular services and materials, for example linguistic minorities, people with disabilities or people in hospital or prison.

The above UNESCO manifesto summarises public libraries' deliberate roles in all facets of the society, such as cultural, economic, social, cultural, technological development. The manifesto also emphasises the main purposes of establishing public libraries which are to advance knowledge to members of the society through the various services they offer.

To this end, public libraries in South Africa have not only taken the role of educating and instructing but have also taken the role of using ICT services to deliver their services. The bulk of the direction of their services are targeted to centre around fulfilling the social and community necessities according to the principles of community and public informatics. Due to the rapid change in role of the public libraries, librarians and library assistants should also undergo further training so that they can meet the rapidly changing role expectations and to prepare them for emerging challenges associated with libraries services and to significantly contribute toward the promotion of digital inclusion in South Africa.

The Way Forward

Public libraries are a gateway for information and knowledge advancement with goals of sustaining cultural development, independent decision making and life-long learning of individuals and community groups and need to be adequately equipped with information needs that will assist in identifying the information needs of individuals and community groups (UNESCO, 2000; Ajegbomogun, 2007). The public libraries to accomplish these need effective sustenance from the different sectors such as the community members and groups, and constituted authorities. The South African public libraries require support in the following ways:

Favourable Government Policies

There is an urgent need for government policies to favour the establishment of continuous support for the public libraries. It is evident that there are already policies in place for establishment of public libraries; however, the established public libraries are left like orphans to cater for themselves. The Government should amend those policies so that public libraries continue to receive support until they are financially sustainable.

Capacity Development and Building

It is critical for the librarians and library assistants to undergo on duty capacity development and building around modern library technology and library management system. Human capacity and development go beyond development of common skills; it relates to the advancement of human resources through training and retraining which can only happen when there is cooperation between teammates which will eventually lead to innovation , further teambuilding and sharing of resources and knowledge (Ojiambo, 1992; Kimaro, 2006) This will enable members of the community and groups not only enjoy and learn from the wealth of knowledge of the library staff but will also serve as a catalyst for the global growth of public library services in South Africa.

Allocation of Suitable Funding

There is a need for proper funding of the public libraries in South Africa to further provide. The funding will be to cover the cost of covering librarians and library assistants' remunerations, stocking of the libraries, capacity development and building, running costs and other miscellaneous expenses. It is not a good development when public library services cannot be accessed because of, for example, lack of power supply, unsubscribed internet service, expired online library subscriptions and staff strikes. Improper allocation of funds to the public libraries will not only disenfranchise the members of the community and groups but will also further widen the digital gap thereby diminishing the quality of the services that the public library provides.

Strategic Location of Public Libraries

The building of public libraries should be strategically and centrally located. This is to promote accessibility to the members of the community

and groups who are desirous to utilise them. The Government should prioritise its duties to all the people of the Republic to not only deliver on their mandate to uphold the constitution of the Republic of South Africa but to also deliver their campaign promises. There is a general belief that during elections, ballot papers are transported to the remotest places; however as soon as elections are over, basic amenities do not reach of grassroot people in those remote locations. Public libraries in South Africa should be accessible to the common man living in any part of the country without restriction or limitation and without taking much time to locate.

Discussion/Conclusion

This study aimed to provide an insight into the role of South African public libraries in promoting digital inclusion among the citizens of South Africa using the digital divide as a lens. This study revealed that the role of public libraries is indispensable to promote the culture of reading to providing access of timely information and sustaining lifelong learning, to mention a few benefits. In addition, the role of the public libraries, when looked at critically, has not only rapidly metamorphosed during the past years from analogue provision of services via physical documents to ubiquitous, material and digital provision of services but has also brought about innovative ways for members of the community to access and handle information in and outside the library facilities. This study also identified some digital divide types such as gender, age, education, and economics and how each of them affects South Africans' access to ICTs. In order to identify the roles of libraries in achieving digital inclusion, this study focused on digital needs, benefits, and challenges of South African public libraries. This study, however, confirms that the libraries cannot by themselves achieve digital inclusion for citizens and especially library users, but the Government also needs to assist. Some of the challenges of public libraries which the Government needs to tackle in order to bridge the digital divide of all types and at all levels includes equipping public libraries with modern ICTs facilities which would meet the modern digital information needs of users and at the same time the Government needs to provide alternative source of power for communities with an erratic power supply.

The way forward to further encourage digital inclusion was also provided such as providing an enabling environment for all community members and groups in accessing digital library technology as this is pertinent to bridging the digital gap among citizens of South Africa. Government policies should be made to favour citizens of all ages and creeds in accessing ICTs in the public libraries. Taking these crucial bold steps of bridging digital gap will not only encourage a substantial digital participation culture among citizens but will also put South Africa ahead of other developing countries of the world regarding digitalisation of public libraries and consequently promote digital inclusion among citizens to further meet one of the envisioned 2030 Sustainable Development Goals of United Nations, which is to leave no one behind.

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