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ANALYSIS OF NATIONAL LIBRARY WEBSITE OF BRICS COUNTRIES

: A COMPARATIVE STUDY

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Abstract:

The study shows a comparative analysis of five BRICS countries National Libraries. We have classified them on the basis of parameters such as their collection, Web2.0 applicability, virtual reference service, website covering language, visitors service, number of institutional repository, software used (digital library or content management software). The website security feature was also discussed as it plays an important role in securing user data. We have also included the user friendliness of impaired persons so that they can also access the websites with ease. The overall analysis found the total collection and rare collections of these national libraries. Most probably the National library of Brazil, Russia and India are more progressive than the other two countries such as China and South Africa.

Keywords:

BRICS countries, National Library, Websites, Collection, Application of Web 2.0 tools, Impaired persons, Virtual reference service

Introduction:

BRICS as the name suggests with the involvement of countries such as (Brazil, Russia, India, China and South Africa) has emerged as an economic and powerful force to think on. The increase in the economic growth and development of the BRICS countries can create an important driving force for not only worldwide economic development, but also among the leaders from emerging economies. The scaling up of the economies among the BRICS countries can emerge as a structural edge in relevance to the rest of the world. In the year 2015 with a staggering 53.4 per cent of the world's population, the BRICS countries alone reached a total GDP of US\$16.92 trillion — which accounts to around 23.1 per cent of global GDP. However in the same year, BRICS countries accounted for 19.1 per cent of world exports. Again during 2006 to 2015 the trade among BRICS countries increased significantly from 163 per cent from US\$93 billion to US\$244 billion.

In any country National library plays a vital role in the development of higher education system. A national library not only developed the higher education system it also enhanced this countries societal growth. Here we took BRICS countries National Libraries which are impacting so much on the excellency and improvement of the countries nation building progress. BRICS is an association of five major countries consists of Brazil, Russia, India,

China and South Africa. A comparative analysis has been put here on the basis of data collected from the website of these national libraries.

BRICS Countries:

The term “BRIC” was coined by Jim O’Neill in 2001. The foreign ministers of the four BRIC countries (Brazil, Russia, India and China) met in New York city in 2006 to continue a series of high level meetings. In 2010 South Africa was also added as a major country with it and it became BRICS. It is an economic, political, regional cooperative organisation.



Figure 1: Map of BRICS Countries

Objectives:

- 1.To find out the collection of BRICS countries National library collection.
- 2.To find out application of web2.0 in libraries.
- 3.To find out Virtual reference service facility availability.
4. To find out Rare collection of these libraries.
5. To find out Institutional repository services.

Literature review:

Ali and other (2018) described about web based services of university libraries of BRICS nations where they showed the web 2.0 application of these libraries. They found that India and china are far behind than Brazil, Russia and South Africa in applying web 2.0 tools.

Brahma and Verma (2018) did a webometric study on the evaluation of National libraries websites of BRICS countries. They analysed the domain and page authority, domain extensions, internal equity passing links, internal links, total links, total linking root domains

etc. According to their survey they found that 67 domain and 73 page authority of china are the highest and the national library of Russia.

Dhanavandan and Tamizhchelvan (2015) did a study on institutional repositories of BRICS countries. They discussed on the growth and development of institutional repositories available in BRICS countries. Based on their study they found that Brazil has the largest number of records among BRICS countries.

Walia and Gupta (2012) made a study on application of web 2.0 tools by national libraries. 66 national libraries are taken for their study. They did a final result that showed that 42% national libraries are adopt one or more web 2.0 technologies.

Methodology:

The Data has been extracted from concerned websites of National Libraries and other related online sources related to BRICS and National libraries. The data was studied and examined for further analysis. Based on our reading and understanding certain parameters were predefined that have been considered as important factors on the basis of which the National Libraries were categorised and represented in Tabular format. The data was further reviewed systematically and an analysis was given appropriately.

Country wise analysis:

BRICS five major countries consists of Brazil, Russia, India, China and South Africa are the cooperative countries. The national library services provided by these countries are more elaborative.

Countries	Name of the Library	Year of establishment	Website	Website security connection	Location
Brazil	Biblioteca Nacional	1810	https://www.bn.gov.br/	Secure	Rio de Janeiro, Brazil
Russia	National library of Russia	1795	http://nlr.ru/	Not Secure	Saint Petersburg, Russia
India	National library of India	1953	http://www.nationallibrary.gov.in/	Secure	Kolkata, India
China	National library of china	1909	http://www.nlc.gov.cn/	Not Secure	Beijing, China
South Africa	National library of South Africa	1818	http://www.nlsa.ac.za/	Not Secure	Cape town, Pretoria

Source: *Secondary data*

Here we have made a comparison of the five countries with relevance to their National Libraries. Since the BRICS countries play a major contribution to the global development economies hence we have chosen these countries to give a brief idea about their national

libraries. It can be seen that the national library of Russia was established in the 17th century occupying the status of the oldest library followed by Brazil. India tends to occupy the fifth position in this table with the youngest library among them. Then we will discuss about the website security connection where Brazilian and Indian websites have secured connection whereas the websites of Russia, China and South Africa fail to provide a secure connection. The website security certificate for Brazil has been issued by DigiCert SHA2 Secure Server CA while that of India was issued by GeoTrust EV RSA CA 2018. Now the reason for getting a secured connection is that if users enter any sensitive information such as passwords and card details onto this website for any reason or so, these information will not be vulnerable to attackers who can misuse this information for their benefit.

National Library of Brazil:

Total collection	More than 10 million and an average of 2000 volumes of general works and 5000 of periodicals are added to the collection every month
Rare collection	It has a collection of 9 million items. A collection of Barbosa Machado which was donated by the bibliophile. It contains 4,300 pieces in 5,764 volumes, prints and maps. A collection of De Angelis acquired in 1853 which contains 1,717 pieces in 2,747 volumes, and 1,295 manuscripts.
Web 2.0	RSS, Blog, Facebook, Twitter, TtripAdvisor, YouTube, Prog Blog Translation Support, Instagram
Virtual reference service	Mail (livraria@bn.gov.br), Help Service (question and answers)
Library Services	Translation Support Program, Heritage reproduction, ISBN, Exchange between libraries, Long distance research, Accessible library
No. of Institutional repository	84
Use of Software	DSpace, ETD-db, Drupal, Maxwell, Nou-Rou, SciELO, TEDE, Corisco
Other services	Support Program to the Translation and Publication of Brazilian Authors Abroad, Residence Program for Foreign Translators in Brazil, Exchange Program for Brazilian Authors, National Research Support Program - PNAP, Electronic Citizen Information Service System
Visitor Service	Guided Visits
Website Language access	Spanish, Portuguese
Publication	Risk management plan - safeguard & emergency - Nation
PWD friendly	Yes, (VLBRAS)

Source: *Secondary data*

The National Library Of Brazil also known as Biblioteca Nacional do Brasil. It is considered as the depository of bibliographic and documentary heritage of Brazil in Rio de Janeiro. The largest library in Latin America and the 7th largest in the world, its collections include more than 10 million items. Due to its enormous quantity of rare items it was thus considered by

UNESCO (Organization of United Nations for the Education, Science and Culture) as one of the main national libraries in the world. It also has a wide application of web 2.0 tools for the betterment of the library services. Mail and help service is also provided for instant answers to questions asked. Several services like guided visits, book exchange programs and accessible library programs are also conducted. Various software are used for the repository as well as the management of Libraries. Additional services such as exchange programs for foreign Brazilian authors and support programs for the enhancement of research. Another VLIBRAS support is provided that uses sign language for special users.

National Library of Russia:

Total collection	Rich collection of incunabula: 6,000 books Rare books:8,000
Rare collection	70,000 volumes of rare books. Incunabula Aldine edition of the 15 th -16 th century
Web 2.0 application	RSS, Blog (live journal),VK App, Facebook, YouTube, Prog Blog Translation Support, Instagram, Channel
Virtual reference service	Mail (ref.service@nlr.ru), Virtual Reference Service “Ask a Bibliographer”, I can’t find service, Online Consulting Service
Library Services	Electronic services, Federal document conservation, Interlibrary loan, Reproduction
No. of institutional repositories	22
Use of Software	DSpace, EPrints, OAI-CL, Socionet
Other Services	A range of services in the field of conservation of funds, A range of services in the field of standardization and protection of intellectual property Carrying out photo, film, video shooting in the interiors of the National Library of Russia
Visitor services	Conducting excursions
Website access	Language Russian, English
Publication	Print on Demand, Souvenir products
PWD friendly	Yes, (version for visually impaired)

Source: *Secondary data*

The National Library of Russia in Saint Petersburg was earlier known as the Imperial Public Library during the year from 1795 to 1917. It is one of the oldest public library in the nation, and is considered as the first national library in the world. It has the second richest library collection in the Russian Federation, a treasury of national heritage, and is the All-Russian Information, Research and Cultural Centre. Over the course of its history, the Library has aimed for comprehensive acquisition of the national printed output and has provided free access to its collections. It has a wide range of web 2.0 tools to reach the modern day users. It

also has an official channel (www.nlr.ru) which talks about its treasures and the secrets of the book world. It provides excursions for visitors along with video filming of the interiors. There is also a customised version of the website for persons with disability (PWD). There is a publishing house as well for printing books on demand and Souvenir products (Notepads, cards, bookmarks). It also provides a platform for content creators named Yandex Zen.

National Library of India:

Total collection	2.2+ million books (Covered 25 languages) 6801 rolls microfilm, 18422 microfiche
Rare collection	485 manuscripts, 5617 rare materials Census of India (1872-1951)
Web 2.0 application	Facebook, Twitter, YouTube
Virtual reference service	Mail (dgnl.kol-culture@nic.in), Feedback
Library services	Reprographic, Microfilm, bibliographic, Bibliographic Services, Inter Library Loan
No. of institutional repositories	68
Use of Software	DSpace, Eprints, Greenstone, CALIBRE, Architexturez, Nitya
Other Services	Service for children, Preservation Division (Binding), Laboratory Division, Reprographic Preservation, Conservation
Visitor services	None
Website Language access	Hindi, English
Publication	Praphullachandra Ray: A Checklist of Major Holdings in English and Bengali
PWD friendly	Yes, Screen Reader Access (W3C) compatible

Source: *Secondary data*

The National Library of India, Kolkata is the largest library in India by volume, and is a repository for all the books published in India. It comes under the Ministry of Culture, Government of India. The library is selected to collect, disseminate and preserve printed produced in India. There are a total of 24 general divisions where each and every division has a specific task. It houses a content collection of 14 Indian languages and foreign languages of 5 different race such as East Asian Languages, West Asian & African Languages, Germanic Languages, Romance Languages and Slavonic Languages. A total of 498 Foreign Journals & Newspapers were subscribed on renewal basis for the year 2015. The Census of India (1872-1951) is a rare document that is available in the Library as Microfiches. The website is user friendly for persons with disability (PWD) as it is World Wide Web Consortium (W3C) compliant and follows the Web Content Accessibility Guidelines (WCAG) 2.0 level. This will enable people having visual impairments access the website with ease using assistive technologies, such as screen readers. The information of the website can also be accessible with different screen readers, such as JAWS, NVDA, SAFA, Supernova and Window-Eyes.

National library of China:

Total collection	37 million
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Rare collection	Rare Chinese books 2.7 Lakhs,16.4 lakh thread bound books Sino-American diplomacy file of the late Qing Dynasty;
Web 2.0 application	RSS
Virtual reference services	Mobile Digital Library, virtual navigation, virtual reading terminals, Mail (webmaster@nlc.cn)
Library Services	Digital library for visual impairment and children, microfilming service, Television service, international exchange, Mobile library services(For newspaper)
No. of institutional repositories	39
Use of Software	DSpace, VIP reader(for science and technology periodicals),CAJ reader(for full text database),Adobe reader (for pdf files), Apabi reader(for apabi E-book)
Other Services	Digital Television Service, Touch-screen for Electronic Newspapers, Information Commons(IC), Children Library, Intelligent Stack Navigation
Visitor service	None
Website Language access	Chinese, English
Publication	Electronic publications (102,804 items)
PWD friendly	Yes, China Digital Library for Visual Impairment (CDLVI)

Source: *Secondary data*

The National Library of China or NLC in Beijing is the national library of the People's Republic of China. With a collection of over 37,686,187 volumes or items (as of Dec 2017), it is the largest library in Asia and one of the largest in the world. It holds the largest collections of Chinese literature and historical documents in the world. At the end of year 2015, the Library had collected 1,589,119 reels/fiches of microforms. NLC also provides mobile digital library service, and keeps users updated about the NLC news and events, Cultural Expressions, often sought books, and regular updates on a concurrent basis. The digital television service is launched by the Library in cooperation with Beijing Gehua CATV network Co. Ltd. 3 million digital TV households in Beijing can receive their resources and services which are suitable for digital television of NLC though this cable television network.

National Library of South Africa:

Total collection	NA
Rare collection	NA
Web 2.0 application	None
Virtual Reference services	Ask a librarian(infodesk@nlsa.ac.za) , Write to us
Library services	Bibliographic service, , collection management , information access service, Preservation and Conservation service
No. of Institutional repository	29
Use of Software	ContentPro,DigiTool,DSpace,EPrints,ETD-db,SciELO
Other Services	Library disaster management training and recovery operations, Implementation of the resource description access (RDA) in South Africa, Promotion of the culture of reading, writing and

	publishing in South Africa
Visitor service	None
Website Language access	17 languages
Publication	Strategic Plans, Annual Performance Plans, Annual Reports
PWD friendly	No

Source: *Secondary data*

In the year 1818, the National library of South Africa (NLSA) was established under the declaration of Charles Somerset, the Cape Colony's first civil Governor. The ultimate aim was to form a Public Library in order to lay the foundation of a system, which shall help in creating knowledge among the youth in the remote corner of the world. The collections of the NLSA contain a wealth of information, including rare manuscripts, books published in South Africa, periodicals, government publications, official foreign publications, maps, technical reports, Africana and newspapers. There are services being offered to users but they have not have the application of web 2.0 tools. This may be due to the lack of infrastructure and few tech savvy individuals. However they offer users to access their website in 17 different languages. Another feature that should be taken into note is that the website cannot be accessed by impaired persons.

Interpretation:

Based on the above data we can analyse some of the facts such that NLC has the largest collection of items (37 million) followed by National Library of Russia. However National Library of Russia has a good application of Web 2.0 tools followed by National Library of Brazil. This is an important decision taken by the management of the concerned Libraries in order to be in touch with the users. However National Library of China has excelled in the platform of providing virtual reference services followed by National Library of Russia. National Library of Brazil has highest Institutional repository followed by National Library of India. Again National Library of Russia has guided exhibitions for visitors followed by National Library of Brazil. However each and every Library has a provision for PWD users to access their website except National Library of South Africa. Finally National Library of South Africa provides users with the advantage of accessing the website in seventeen different languages. Another important criteria was PWD compliant website where impaired persons can access the website as well. But unfortunately it was seen that only India followed the WCAG 2.0 level. However all the Libraries have provided certain provisions for website accessibility by divyangan but National Library of South Africa failed to provide such interface for these users.

Conclusion:

National libraries are the national depository in any country. According the Delivery of Books act every publisher has to send a copy to its national library also. Most of the data have been extracted from their website and from various other related websites. Hence I think that most of the information should be uploaded onto their respective websites so that users can have a glimpse of their collections from any places on the globe. Here we tried to give an overall perception about BRICS countries national library. It is a cooperative organization formed by five major countries. An overall collection, rare collection, web 2.0 application virtual reference service, other services, number of institutional repositories and the use of

software have been mentioned here which are used in these national libraries. The library websites and other online resources provide us the structure of the standard followed by the library. The collaboration among BRICS countries not only depends on international or governmental standard but also depends on the National Libraries of these countries. This will surely help the readers get a brief understanding of the content present in the National Libraries of BRICS countries.

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