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# Role of LIS Professionals to provide authentic information sources during COVID-19 a Pandemic crisis

#### **Abstract**

During the national crisis, caused by a novel pandemic such as COVID-19 virus infections, people need authentic information to face such a virus. Libraries need to come forward in such a situation as primary sources of trustworthy information by providing rapid and easy access to those seeking authentic information sources. In this crisis, giving Remote Access, Virtual Library, e-resources, Ask the Librarian reference services to the user in real-time and at scale for a range of scientific- and policy-related responses can be very significant to the academic and research community. The present study has collected data from authentic information sources, mainly Government official portals of Indian states such as the MyGov COVID-19, UTs, and National/International agencies, etc. After analyzing and studying the data, the authentic information sources served to the research community are listed out. This paper also highlights the ratio of COVID-19 publications and highly cited publication of the same, using the Scopus abstracting databases. This study is an original research work focused on the roles and responsibilities and actions taken by the Library and librarians in crisis situations. Hence this study will help Librarians, Information Providers, Practitioners, Policy Makers, Researchers, and development activity in this field.

**Keywords:** COVID-19, Coronavirus, Authentic information sources, Librarian role in crises.

#### Introduction

As libraries are dealing with information generation to the dissemination process, it definitely deals with the global crisis like Coronavirus (COVID-19) of 2020. In such a scenario, it is challenging to give services to the users and to manage the natural process of information dissemination. Therefore, to cope up with this situation, librarians can take the initiative to promote their online service to the users. Because we are now living in the Internet age, with a single click user can get ample information. But it is very tough to recognize the authentic information sources from fake. Hence the roles of librarians are vital in information society for providing trustworthy information sources to the users.

While it's fascinating to view these pandemic related closures as much-needed downtime, librarians don't have that leisure. Society still needs librarians. In fact, users who have not utilized library services in years want libraries boredom-breaking services and librarian's long-trusted guidance, too. This is the best opportunity to market libraries and its online services now, for three

reasons: 1. Guide users regarding what is available online and how to use it; 2. being the authentic source of information that users expect; 3. Proving librarians value retaining funding after the crisis. Overall we can say that only librarians can reach the users' satisfaction regarding information sources and online services in such a predicament. While working from home, start to promote services and products so the users can get exact information on their desk without spreading rumors about the crisis (Dempsey, Kathy 2020, <a href="https://www.library20.com/page/crisis">https://www.library20.com/page/crisis</a> accessed on 25/03/2020).

The 2019–20 coronavirus pandemic is an ongoing pandemic of coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The outbreak was first identified in Wuhan, Hubei, China, in December 2019, and was recognized as a Organization (WHO) on pandemic by the World Health 11th March 2020. https://en.wikipedia.org/wiki/2019%E2%80%9320\_coronavirus\_pandemic, accessed on 25/03/2020). Over the past ten years, a series of health risks, including the Swine Flu in 2009-2010, the SARS outbreak in 2003, then after that high-risk Ebola virus in 2014-2016, MERS virus in 2015, has concentrated the public attention on the required authentic sources of information about how to deal with such risks. https://www.visualcapitalist.com/history-of-pandemics-deadliest/ accessed on 31/03/2020).

In such situations, research and development activities should not be stopped, so every institution or organization and academic institution is trying to make their Library openly accessible to their scientists and users. So as library professionals, we must guide our users towards authentic sources of information about the COVID-19. This paper will focus on the authoritative information resources about COVID-19 published on the Government official website. Also, it highlights the scholarly research papers published by the research community using the Scopus database.

#### **Review of Literature**

The literature review is an essential step in every research activity. The research scholars have collected research materials form Emerald & Elsevier Databases and online resources. Zach has surveyed fifty largest US city libraries to find out that most of the libraries and librarians used Web 2.0 tools to provide information services to their patrons in the crisis time of H1N1 influenza in 2009 and also required the training to prepare librarians to respond to the information needs of their patrons. (Zach, Lisl 2011)<sup>15</sup>. However, Soehner, has defined crisis are "bed bugs," found all over the world, by the late 1800s and1900s. In such risk conditions, Social Media can be used to keep people up to date about the crisis and can also be used to collect information about the solutions that may rectify the crisis (Soehner, Catherine 2017)<sup>11</sup>. Also, Braunstein has suggested that the functions of acquiring knowledge up to disseminating processes can be made more urgent

during a crisis. Also, he has stated that libraries can function as intuitional supporters, collection managers, information disseminators, internal planners, community supporters, government partners, educators and trainers, and information community builders. (Braunstein, S. G et al, 2012)<sup>1</sup>. Liu has done a situation-specific pilot survey study, and recommendations are made that could help libraries proactively create risk communication strategies using social media for effective information services. (Liu, Jingjing et. all, 2017)<sup>6</sup>. However, Winston has pointed out that less focus on information access, despite the impact of war and terrorism on library collections and resulting legal and policy decisions related to access to information (Winstone, M. D 2005)<sup>15</sup>. After going through various literature, it is necessary to identify public information needs and serve them. Director of media relations for the Center for Disease Control and Prevention (CDC) in 2001, commented, "People feel comforted by the truth even when it is not what they want to hear." (Zach, Lisl 2011)<sup>12</sup>.

#### **Objectives of the study**

The primary aim of this study is to provide authentic sources of information about COVID-19 to the scientific community and people in India. This study also highlights the role and responsibility of the LIS professionals towards the scientific community in this pandemic situation. The following specific objectives are formulated to achieve the target of the present research study:

- To find out authentic information resources.
- To find out the scientific publication trends on COVID-19.
- To study MyGov.in/COVID-19 portal (Official website of GOI).
- To study the role and responsibility of LIS professionals in such conditions (COVID-19) towards research society.

#### Methodology

In this study, we have visited all states and union territory's (UT) government website/portal to collect factual data related to COVID-19, published by the respective States and UTs Governments. To examine the scientific publication on COVID-19 from January 2020 using popular Web of Science, Scopus, Google Scholar, Academia.edu-share, ResearchGate open/closed access platform. To know the action taken by the Indian Libraries (academic and public) in these situations, the researcher has visited many library websites to get the information and also had a telephonic conversation with the Librarians. Microsoft Word and MS-Excel have been used for data analytics and interpretation.

#### **Authentic information sources and discussion**

In table 1 & table 2, we have provided all 29 states and 9 UTs wise office details, which publishes information about COVID-19. Details like organization name and brief description about

what they have published on the official website and their helpline number are included in the tables. Most of the state governments publish COVID-19 information on their state official portal, some states upload on the Department of Health & Family Welfare Mission website, and some on the state National Health Mission website. Also, some states have created a new portal for COVID-19. We have found in various states the District collector office web portal published various information about coronavirus along with district-level helpline number.

All the information provided by the states on COVID-19 is more or less the same. They have provided information regarding precautions to be taken for the coronavirus, guidelines for coronavirus, along with a travel advisory to its citizens, and office notes. Some states provide help regarding how to identify and things to do and avoid preventing coronavirus. Some state Government websites provide information to stop its spread and guidelines for its citizens.

Table no. 1 State-wise authentic source of information about COVID-19. (Offices website & helpline Number)

States	Name of the	<b>Brief Description</b>	Web Link	Helpline
	office		(URL)	Number
Andhra	Commissionerate	A dedicated portal by the	http://cfw.a	0866-2410978
Pradesh	of Health &	Department of Health and	p.nic.in/	
	Family Welfare	Family Welfare of the Andhra		
	Mission	Pradesh State Government. It		
	Directorate,	provides information regarding		
	National Health	precautions to be taken for		
	Mission	coronavirus and also publishes		
		all office orders about the		
		COVID pandemic that has been		
		uploaded.		
Arunachal	Government of	The government of the	http://www.	9436055743
Pradesh	Arunachal	Arunachal Pradesh Official State	<u>arunachalpr</u>	
	Pradesh Official	portal provides guidelines for	adesh.gov.i	
	State portal	coronavirus along with a travel	<u>n/</u>	
		advisory to its citizens and office		
		notes.		
Assam	Government of	State Government website	https://sad.a	6913347770
	Assam,	providing information regarding	ssam.gov.in	
	Secretariat	COVID 19 like safety measures,	/documents-	

regarding coronavirus.  regarding-preventive-measure-to-arrest-spread-of-covid-19-corona-virus  Bihar Government of Bihar official portal has given news alert regarding the prevention of COVID-19.  Chhattisgar Department of Health & Family Welfare & viruses.  Medical Education  Goa Official Website of Government of Government of Goa citizens Helpline numbers are listed, along with emails. Contact details of relevant officials are listed. Circulars regarding Tourists and other office orders are released.  Gujarat Official Gujrat State web portal which releases important news regarding COVID 19  Haryana National Health Mission Haryana regarding coronavirus also the proventive-measure-to-arrest-covid-19-covi		Administration	precautions, and various notices	detail/orders	
Bihar Government of Bihar official news alert regarding the website prevention of COVID-19.  Chhattisgar Department of Health & Family Welfare & Medical Education  Goa Official Website of Government of Goa Covid-19/ with a travel advisory to its citizens Helpline numbers are listed, along with emails. Contact details of relevant officials are listed. Circulars regarding Tourists and other office orders are released.  Gujarat Official Gujrat State web portal which releases important news regarding Covid-19/ State Portal information regarding COVID ws.htm  Haryana National Health It provides the daily status http://www. 8558893911			regarding coronavirus.	-regarding-	
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Chhattisgar   Department of   It provides advisories, guidelines   http://www.   104	Bihar	Government of	State official portal has given	http://gov.bi	104
Chhattisgar h Health & Family Welfare & to prevent COVID-19, and other viruses.  Medical Education  Goa Official Website of Government of Goa Citizens  Goa Helpline numbers are listed, along with emails. Contact details of relevant officials are listed. Circulars regarding Tourists and other office orders are released.  Gujarat Official Gujrat State web portal which releases are released.  Gujarat State Portal important news regarding Gujarat state including information regarding COVID 19  Haryana National Health It provides the daily status http://www. 8558893911		Bihar official	news alert regarding the	h.nic.in/	
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Medical Education  Goa Official Website of Government of Goa  Citizens Helpline numbers are listed, along with emails. Contact details of relevant officials are listed. Circulars regarding Tourists and other office orders are released.  Gujarat Official Gujrat State Portal  Medical Education  It provides guidelines, along with a travel advisory to its .goa.gov.in/ covid-19/  Helpline numbers are listed, along with emails. Contact details of relevant officials are listed. Circulars regarding Tourists and other office orders are released.  Gujarat Official Gujrat State web portal which releases important news regarding Gujarat state including information regarding COVID information regarding COVID ys.htm  Haryana National Health It provides the daily status http://www. 8558893911	h	Health & Family	to prevent COVID-19, and other	cghealth.nic	
Education  Goa  Official Website of Government of Goa  Citizens  Helpline numbers are listed, along with emails. Contact details of relevant officials are listed. Circulars regarding Tourists and other office orders are released.  Gujarat  Official Gujrat  State Portal  Maryana  National Health  It provides guidelines, along https://www .goa.gov.in/. covid-19/  Active Povides guidelines, along https://www .goa.gov.in/. covid-19/  Souparat state listed, along with emails. Contact details of relevant officials are listed. Circulars regarding Tourists and other office orders are released.  Gujarat state web portal which releases https://gujar atindia.gov.i n/media/ne ws.htm  It provides the daily status http://www. 8558893911		Welfare &	viruses.	.in/cghealth	
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Haryana National Health It provides the daily status <a href="http://www.8558893911">http://www.8558893911</a>			information regarding COVID	ws.htm	
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Mission Harvana regarding coronavirus also nhmharvana	Haryana	National Health	It provides the daily status	http://www.	8558893911
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advisories from the government. <u>.gov.in/page</u>			advisories from the government.	.gov.in/page	
<u>.aspx?id=20</u>				<u>.aspx?id=20</u>	
<u>8</u>				<u>8</u>	

Himachal	Department of	It provides a set of orders passed	https://hima	104
Pradesh	Health & Family	by the administration regarding	chal.nic.in/i	
	Welfare	COVID-19 and precautions and	ndex.php?la	
		emergency details.	ng=1&dpt_i	
			<u>d=19</u>	
Jharkhand	Official website	Helpline numbers are listed on	https://www	104
	of the State	this portal. Some guidelines,	<u>.jharkhand.g</u>	
		advisories are also released. It	ov.in/	
		redirects to the Department of		
		Health Research Website of the		
		Government of India.		
Karnataka	Karnataka State	COVID-19 circulars, advisories,	https://karu	104
	Govt	guidelines, and IEC materials	nadu.karnat	
		are released. A COVID-19	aka.gov.in/h	
		dashboard is provided for	fw/kannada/	
		Karnataka, and list of home	Pages/covid	
		quarantined people along with	<u>-19.aspx</u>	
		their address is provided		
Kerala	Directorate of	Public, Information, Daily	http://dhs.ke	0471-2552056
	Health Services,	Bulletin, Advisory, Guidelines,	rala.gov.in/	
		Video Gallery, Poster & Banners	<u>public-</u>	
		are published on this portal	<u>health-</u>	
			<u>2019-n-</u>	
			corona-	
			<u>virus/</u>	
Madhya	Directorate Of	It provides a set of orders	http://health	0755-2527177
Pradesh	Health Services,	passed by the administration	.mp.gov.in/	
	Government of	regarding COVID-19 and	<u>en</u>	
	Madhya Pradesh	precautions to measure details.		
Maharashtra	National Health	This is the Maharashtra state	https://www	020-26127394
	Mission	website for the National Health	.nrhm.maha	
		Mission. It has published an	rashtra.gov.i	
		information booklet to inform	n/Booklet.p	
		the citizens about COVID-19 in	df	
		Marathi.		

Manipur	Official website	Notifications, advisories and	https://mani	3852411668
		·	-	3632411000
	of Manipur State	press releases regarding COVID	pur.gov.in/?	
		19 are published on the official	page_id=16	
		portal.	984	100
Meghalaya	Meghalaya State	It provides notifications,	http://megh	108
	Government	advisories, and announcements	<u>alayaonline.</u>	
		made by the State and the central	gov.in/covi	
		government.	<u>d/login.htm</u>	
Mizoram	Government of	News regarding COVID-19 is	https://dipr.	102
	Mizoram	released and an emergency	mizoram.go	
		helpline as well, also precautions	v.in/post/co	
		details have been uploaded.	<u>vid-19-</u>	
			chungchang	
			<u>a-mipui-</u>	
			<u>hnena-</u>	
			chief-	
			minister-	
			thuchah-	
			<u>2632020</u>	
Nagaland	Directorate of	COVID-19 related news is	https://naga	7005539653
	Health & Family	released on this portal for the	health.nagal	
	Welfare,	people of Nagaland.	and.gov.in/	
	Government of			
	Nagaland			
Odisha	COVID-19	Guidelines and necessary steps	https://healt	9439994859
	Registration	taken are published on this	h.odisha.go	
	Portal,	health portal. Citizens can	v.in/index.h	
	Government of	register themselves if they have	<u>tml</u>	
	Odisha	returned from abroad.		
Punjab	Department of	A web portal by the Department	http://pbhea	104
1 unjao	Health and	of Health and Welfare of Punjab	lth.gov.in/	
	Welfare	State Government. Guidelines	<i>3</i> - · · · · · · · · · · · · · · · · · ·	
		and necessary steps taken are		
		published.		
Rajasthan	State	A state-level website which	https://www	0141-2225624
Rajasthan	Government of	provides a do's and don'ts	_	0171-2223024
	Government of	provides a do's and don'ts	<u>.rajasthan.g</u>	

	Rajasthan,	regarding the coronavirus.	ov.in/Pages/	
	Official Website		default.aspx	
Sikkim	Official Website	COVID-19 related news is	https://sikki	104
	of Government of	released on this portal for the	m.gov.in/	
	Sikkim	people of Sikkim.		
Tamil Nadu	National Health	District website to educate	http://www.	044-29510500
	Mission, Tamil	people regarding COVID-19.	nrhmtn.gov.	
	Nadu		<u>in/</u>	
Telangana	Indian Institute of	This website has guidelines,	https://covid	104
	Health and	advisories, and awareness	19.telangan	
	Family Welfare	related information that has been	a.gov.in/	
		provided.		
Tripura	Department of	COVID-19 related news is	https://healt	0381-231-5879
	Health and	released on this portal like	h.tripura.go	
	Family Welfare,	precaution, office notes, order,	v.in/	
	Govt. of Tripura	etc.		
Uttarakhand	Official Website	Novel CoronaVirus Guidelines,	http://health	104
	of the	instruction, office orders	.uk.gov.in/p	
	Department Of	advisories have been published	ages/display	
	Medical Health	here by the Uttarakhand State	/140-novel-	
	And Family	government.	corona-	
	Welfare		<u>virus-</u>	
	Government Of		guidelines-	
	Uttarakhand		and-	
			advisory-	
Uttar	State	The website has provided link of	https://www	18001805145
Pradesh	Government	COVID-19, MyGov link,	.mygov.in/c	
	Official website	Government of India	<u>ovid-19/</u>	
West	West Bengal	West Bengal State Government	https://www	180031344422
Bengal	State	website to provide information	.wbhealth.g	2/
	Government	about Novel Coronavirus and	ov.in/pages/	03323412600
		how to stop its spread. It	corona/guid	
		provides guidelines for its	<u>eline</u>	
		citizens.		

**Table no. 2 Union Territories (UTs)** wise authentic source of information about COVID-19. **(Offices website & helpline Number)** 

States	Name of the office	<b>Brief Description</b>	Web Link (URL)	Helpline
				Number
Andaman	Andaman and	A government website	https://www.anda	03192-232102
and Nicobar	Nicobar Islands	that releases news	man.gov.in/	
Islands	government	regarding COVID 19		
Chandigarh	Chandigarh	The Chandigarh official	http://chandigarh.	9779558282
	Government	portal, It informs its	gov.in/	
		citizens regarding		
		COVID-19.		
Dadra and	Union Territory	It is a web portal for	http://dnh.nic.in/	104
Nagar	government	Dadra and Nagar Haveli		
Haveli		and provides information		
		regarding coronavirus.		
Daman and	U.T.	This official portal has	https://daman.nic.	104
Diu	Administration of	provided guidelines and	in/covid19.aspx	
	Dadra and Nagar	precautions about		
	Haveli and Daman	coronavirus.		
	and Diu.			
	Government of			
	India.			
Delhi	Government of	Delhi State Health	http://health.delhi	011-22307145
	Delhi, Health	Government guidelines	govt.nic.in/	
	portal.	and steps taken are		
		published here.		
Jammu and	Jammu & Kashmir	People arriving from	https://jk.gov.in/ja	01912520982 /
Kashmir	Official Portal	COVID-19 affected	mmukashmir/?q=	0194-2440283
		countries can report	content/govt-	
		about their status on the	<u>orders</u>	
		helpline number they		
		have provided.		
Ladakh	Union Territory	The government orders	https://ladakh.nic.	1982256462
	government	released by the	in/#orders	
		Government of Ladakh		

		can be found here.		
Lakshadwee p	Lakshadweep	The regulations regarding COVID-19 are published here.	https://lakshadwe ep.gov.in/notice/t he-lakshadweep- epidemic-disease- covid-19- regulations-2020/	104
Puducherry	Union Territory government	Union Territory of Pondicherry releases information regarding coronavirus and Government order on this portal.	https://www.py.g ov.in/	104

#### **National / International Organizations**

Table no. 3, provides various National and International Organizations/agencies' office details, which publishes information on COVID-19. Details like organization name and brief descriptions about what they have posted on the official website are included in the table. Globally, all national and international agencies are worried about the pandemic; all are trying to provide information about the coronavirus, how to prevent, guidelines, and also support the various nations economically and offer medical equipment to prevent the pandemic. Various international labs have started research to make vaccines on coronavirus. They have provided information globally.

Table a no. 3 National and International authentic sources of information about COVID-19. (Official website)

Country	National / International	<b>Brief Description</b>	Web Link (URL)
	Organizations		
USA	Centre for Disease	CDC is a national public health	https://www.cdc.gov/cor
	Control (CDC)	institute of the United States.	onavirus/2019-
			ncov/prepare/prevention.
			html
USA	CoronaVirus.gov	A US government website for	https://www.coronavirus.
		coronavirus related information	gov/
		and guidelines	

India	Indian Council of	the apex body in India for the	https://icmr.nic.in/conten
	Medical Research	formulation, coordination, and	t/covid-19
	(ICMR)	promotion of biomedical	
		research	
United	International Maritime	It is a specialized agency of the	http://www.imo.org/en/
Kingdo	Organization (IMO)	United Nations responsible for	MediaCentre/HotTopics/
m		regulating shipping.	Pages/Coronavirus.aspx
India	Ministry of Health and	This is the govt website for	https://www.mohfw.gov.i
	Family Welfare	Indian citizens. It provides	n/
		regular updates regarding the	
		changing situation in India about	
		the novel coronavirus	
India	My Gov, GOI	It provides guidelines, advisories	https://www.mygov.in/co
		for coronavirus. It also has a list	vid-19
		of Helpline numbers the	
		advisories for all the states and	
		Union territories in India	
India	National Centre for	National Centre for Disease	https://ncdc.gov.in/index
	Disease Control (NCDC)	Control is an Institute under the	4.php?lang=1&level=0&l
		Indian Directorate General of	inkid=127&lid=432
		Health Services, Ministry of	
		Health and Family Welfare. It	
		researches epidemiology and	
		control of communicable	
		diseases.	
India	National Health Portal	It provides healthcare-related	https://www.nhp.gov.in/d
		information to the citizens of	isease/communicable-
		India and serves as a single point	disease/novel-
		of access for consolidated health	coronavirus-2019-ncov
		information	
India	News Services Division	The news services division of	http://newsonair.nic.in/M
		India publishes all information	ain-News-
		regarding coronavirus.	Details.aspx?id=383688

India	Press Information Bureau	Press Information Bureau	https://pib.gov.in/newsite
	(GoI)	disseminates information to the	/pmreleases.aspx?mincod
		print, electronic, and new media	e=31
		on government plans, policies,	
		program initiatives, and	
		achievements. It recently	
		clarified the misconceptions	
		regarding COVID-19 among the	
		people with a post.	
USA	United Nations	The United Nations Children's	https://www.unicef.org/c
	Children's Fund	Fund (UNICEF) is a critical	oronavirus/covid-19
	(UNICEF)	player in child health initiatives.	
		The organization spends the	
		majority of its non-	
		administrative budget on	
		promoting health initiatives and	
		prioritizes the needs of the	
		world's most vulnerable	
		children.	
USA	World Bank	As a leading institution for	https://www.worldbank.o
		investments in health and	rg/
		development, the World	
		Bank plays a critical role in	
		shaping global health policy.	
Geneva	World Health	The World Health Organization	https://www.who.int/eme
	Organization (WHO)	is a specialized agency of the	rgencies/diseases/novel-
		United Nations responsible for	coronavirus-2019
		international public health.	

#### **Scientific research trends on COVID-19**

According to (Cynthia Liu et al, 2020.), the new disease and its causative virus have drawn significant global attention since the outbreak of COVID-19. "Scientists and physicians worldwide have been conducting a major campaign to understand this new emergent disease and its epidemiology to uncover possible treatment regimens, discover effective therapeutic agents, and develop vaccines." We have seen rapid growth in scientific research publications on coronavirus

since January 2020. We have used the keywords "COVID-19"," COVID," and "Coronavirus". As of 31<sup>st</sup> March 2020, we have found total 652 publications.

It is interesting to note that 84% of the papers published in open access or free access journals/magazines are covered by subject areas Medicine, Immunology, and Microbiology. Most of the articles are published in BMJ Clinical Research Ed, Lancet, and Journal of Medical Virology. China (219) is at the top position among countries producing research papers on COVID-19, followed by US (119) and UK (66), whereas India published only 11 research papers as of 31st March 2020. Larger areas explored about clinical manifestations, treatment options, virus structure, virus transmission mechanisms/dynamics, as well as an experiment of antiviral agents. These trends reflect immense interest and desire from the scientific community, including academic, industrial organizations, clinicians, R & D, to find out new methods to halt the progression of this epidemic disease and to prevent infection and transmission in the future.

#### COVID-19 (MyGov.in/covid-19) official portal of Government of India

COVID-19 website has been published by the Government of India (GOI) to provide information about coronavirus to the citizens. All necessary steps taken by the Government of India (GOI) to prevent the challenge of the growing pandemic of coronavirus are published on this site. The most important factor in preventing the spread of the virus locally is to empower the citizens with the right information and taking precautions as per the advisories being issued by the Ministry of Health & Family Welfare, Government of India.

The websites provide how many passengers were screened at airports, active COVID-19 cases, cured/discharged/ migrated cases, death cases in India. They also upload important information about Corona –Virus, provide national helpline numbers (+91-11-23978046 or 1075) and also a link for States and National Territories helpline numbers. The government published quarantine guidelines & lockdown details information for each state and UTs. The government introduced various activities related to coronavirus:

- Prepare, don't Panic! Give your ideas & suggestions to help fight against Coronavirus (Ideate to combat coronavirus),
- COVID-19 solution challenge (Innovate to fight COVID-19)
- Join the war against COVID-19 (Register as COVID-19 volunteer)
- #StayAlertStaySafe, govt lunches 'AAROGYA SETU APP', a Bluetooth-based, COVID-19 tracker.

The website also published the various video to alert people like, "Know the right way to wash your hands,"; "Watch Mr. Amitabh Bachchan sharing his thoughts on Coronavirus" (<a href="https://www.youtube.com/watch?time\_continue=10&v=OFFg21KhOV0&feature=emb\_logo">https://www.youtube.com/watch?time\_continue=10&v=OFFg21KhOV0&feature=emb\_logo</a>) and "Coronavirus Symptoms." The website visualizes the state-wise statistics graph on COVID-19, how

many people have been affected, total confirmed cases, death and cured/discharged/migrated. The government continues uploading various information & advisory for COVID-19 on this website.

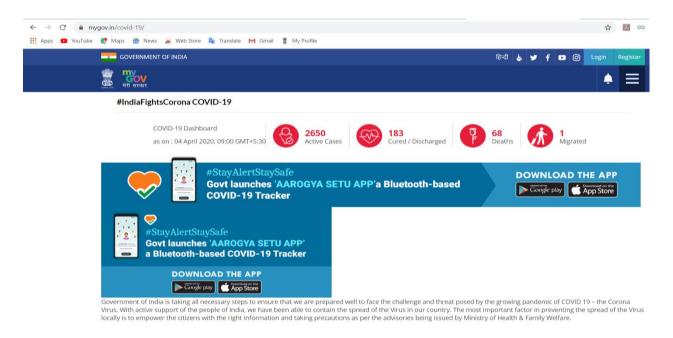


Figure 1: COVID-19, official website of government of India (<a href="https://www.mygov.in/covid-19/">https://www.mygov.in/covid-19/</a> accessed on 4<sup>th</sup> April 2020)

#### Role and responsibility of LIS professionals in during COVID-19 pandemic

Libraries and the LIS professionals can play an active part during this pandemic even though the nations are in lockdown or crisis. According to a WHO report, we are not just facing an epidemic, but also "Infodemic", which refers to an overabundance of information, some of which is genuine while some of it is not (World Health Organization, 2020). There are a plethora of websites, social media posts, images, videos that are spreading fake news.

According to Wineberg, LIS professionals can play major role in crisis. Librarian can be take intinative to provide proper information sources to their users and take up the challenge of stopping this spread of fake news via Whatsup, Facebook, Tweeter, etc. librarian can create maximum awareness about the online/ virtual teaching and learning tools such PG Pathshala and Byju's learning tool. Which may help both teachers as well as the students to connect with each other. A librarian can provide various type of virtual services to the users in such crisis situations as they follow:

They can teach their users to verify the authenticity of the websites or people or communities who are posting such news. Lateral Reading (Wineberg et al., 2017)<sup>13</sup>, a technique that requires verifying the sources using various other websites and based on them judging if the site is genuine.

- The Library should assure their patrons if some of their resources are due, they can be reissued online or can be returned once the Library reopens. Many libraries are already implementing this.
- The Library can provide a list of resources or point them in the direction of these resources. Like the information about the journals publishing research related to COVID-19 and whether these journals are accessible to their users. Other than these, libraries can also consider making the research publication and the datasets coming out of their institutes about COVID-19 publicly available.
- o In the National Lockdown condition, a librarian has to make the resources available to its users, and it can be achieved by using remote access and opening all resources (including thesis & Dissertation) for the patron. Also able to provide some services using the internet such as reference services, Information service, referral service, etc.
- The academic fraternity can also able to conduct online classes and courses such as Moodle, Zoom, Swaym, Swaym Prabha, and Google classroom and conduct video-based study discussions among users using open source software such as Google Hangouts, etc.
- They can point out to the users some online courses which can be either COVID-19 related or regarding the ongoing academic courses. Library professionals can help in making the necessary software such as and available for the students and teachers.
- Librarians can request the publishers to open their research publicly for a few months because all libraries do not have the remote access facility. Also, many publishers (Springer Nature, IEEE, etc.) have already provided remote access to their users who do not have the facility.
- O Public libraries can also take some steps to create awareness among their users or people regarding COVID-19. Collecting resources like videos, interviews, tips, do's and don'ts, etc. for their users so that they can keep themselves safe, Provide a link to the home pages of trustworthy sources like Ministry of Health and Family Welfare (MoHFW), Government of India, and WHO websites to provide more information to their users.
- O Public Libraries can also help to identify scams and frauds, which are prevalent during the times of such pandemic. To help create awareness among the people in general, public libraries can organize some competitions like poster creations for COVID-19.
- O Public library librarians can also list out publicly available educational resources with hyperlink of authentic sources such as Google Books, Internet Archive, Online Public library for all age groups (store books, drama books, religious and biography, etc.). Public libraries can also provide contact information for local health services, officials, etc.

Libraries are an authentic source of information, so the librarian can play their role in the crisis. In pressing times like this, where countries are placing their citizens under lockdown, various academic institutes, corporate offices, government offices are shut down to prevent the spread of COVID-19. At times like these, when the patrons of the libraries cannot reach up to the Library, the Library has to reach its users. Also, provide authentic and related valid resources and continuing the library facility to its user's community.

#### **Conclusion**

We are aware that all academic and public library systems are being closed in various countries and territories, including India, due to the COVID-19 pandemic. Libraries and Information institutes need to come forward in such a situation as primary sources of authentic information resources play an essential role in the research community according to the needs of the information seeker. Knowing the research trends on the current topic is one of the curiosities of any researcher. As the Scopus database is a well-known database in indexing and abstracting, we used Scopus for data collection. COVID-19, the official page of the government of India, provided all information on coronavirus and guidelines. To prevent this pandemic government initiated various programs like "Prepare don't Panic! Give your ideas & suggestions to help fight against Coronavirus" (Ideate to combat coronavirus), "COVID-19 solution challenge" (Innovate to fight COVID-19), etc. Various Library and LIS professionals play an active role in the research community to provide library facilities in multiple ways so that no impact arises on their research on this nation lockdown situation. The contribution of the librarian is remarkable; in the various studies, we have found a librarian plays a vital role in all circumstances, and they are always ready to help the society.

#### **References:**

- 1. Braunstein, S. G., Ryan, J., & Hires, W. (2012). Academic libraries in crisis situations: roles, responses, and lessons learned in providing crisis-related information and services. Crisis Information Management, 175–191. doi:10.1016/b978-1-84334-647-0.50016-3.
- Chi Chiu, Leung, et al. (2020). Mass masking in the COVID-19 epidemic: people need guidance. The Lancet (Editorial), vol 395, 10224, p945. (<a href="https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(20)30520-1.pdf">https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(20)30520-1.pdf</a> Retrieved on 24/03/2020).
- 3. Cynthia Liu, Qiongqiong Zhou, et al. (2020). Research and Development on Therapeutic Agents and Vaccines for COVID-19 and Related Human Coronavirus Diseases. *ACS Central Science* **2020** *6* (3), 315-331 DOI: 10.1021/acscentsci.0c00272.

- 4. Garrett, Laurie (2020). The art of medicine: COVID-19: the medium is the message. The Lancet (Editorial), Vol 395 Feb. 22, 2020 (www.thelancet.com).
- 5. Jacobs, J. A., Jacobs, J. R., & Yeo, S. (2005). Government Information in the Digital Age: The Once and Future Federal Depository Library Program. The Journal of Academic Librarianship, 31(3), 198–208. doi:10.1016/j.acalib.2005.02.006.
- Liu, J., Tu-Keefner, F., Zamir, H., & Hastings, S. K. (2017). Social Media as a Tool Connecting with Library Users in Disasters: A Case Study of the 2015 Catastrophic Flooding in South Carolina. Science & Technology Libraries, 36(3), 274–287. doi:10.1080/0194262x.2017.1358128
- 7. Luo, L., & Park, V. T. (2013). Preparing public librarians for consumer health information service: A nationwide study. Library & Information Science Research, 35(4), 310–317. doi:10.1016/j.lisr.2013.06.002.
- 8. N.A. (2020). The pandemic question (2020). Nature, vol 579, pg. 7. ()
- 9. N.A. (2020). COVID-19: fighting panic with information, The Lancet (Editorial), Vol 395,10224,p537 (<a href="https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(20)30379-2.pdf">https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(20)30379-2.pdf</a> Retrieved on 24/03/2020).
- 10. Shuler, J. A. (2002). Librarians go to war. The Journal of Academic Librarianship, 28(1-2), 59–62. doi:10.1016/s0099-1333(01)00297-x.
- 11. Soehner, C., Godfrey, I., & Bigler, G. S. (2017). Crisis Communication in Libraries: Opportunity for New Roles in Public Relations. The Journal of Academic Librarianship, 43(3), 268–273. doi:10.1016/j.acalib.2017.03.003
- 12. Westbrook, L. (2008). Understanding Crisis Information Needs in Context: The Case of Intimate Partner Violence Survivors. The Library Quarterly, 78(3), 237–261. doi:10.1086/588443
- 13. Wineburg, S., & Mcgrew, S. (2017). Lateral Reading: Reading Less and Learning More When Evaluating Digital Information. SSRN Electronic Journal. doi: 10.2139/ssrn.3048994.
- 14. Winston, M. D., & Quinn, S. (2005). Library leadership in times of crisis and change. New Library World, 106(9/10), 395–415. doi:10.1108/03074800510623083
- 15. Zach, L. (2011). What Do I Do in an Emergency? The Role of Public Libraries in Providing Information During Times of Crisis. Science & Technology Libraries, 30(4), 404–413. doi:10.1080/0194262x.2011.626341.

#### Website:

- 1. Dempsey, Kathy 2020, https://www.library20.com/page/crisis Accessed on 23/03/2020
- 2. <a href="https://www.youtube.com/watch?time\_continue=10&v=OFFg21KhOV0&feature=emb\_logo">https://www.youtube.com/watch?time\_continue=10&v=OFFg21KhOV0&feature=emb\_logo</a> accessed on 01/04/2020.

- 3. MyGov.in <a href="https://www.mygov.in/covid-19/?cbps=1&target=webview&type=campaign&nid=0">https://www.mygov.in/covid-19/?cbps=1&target=webview&type=campaign&nid=0</a> Accessed on 25/03/2020.
- 4. Visualizing the History of Pandemics <a href="https://www.visualcapitalist.com/history-of-pandemics-deadliest/">https://www.visualcapitalist.com/history-of-pandemics-deadliest/</a> accessed on 31/03/2020.
- 5. WHO <a href="https://www.who.int/csr/don/archive/year/2020/en/">https://www.who.int/csr/don/archive/year/2020/en/</a> Accessed on 25/03/2020.
- 6. Wikipedia- <a href="https://en.wikipedia.org/wiki/2019%E2%80%9320\_coronavirus\_pandemic">https://en.wikipedia.org/wiki/2019%E2%80%9320\_coronavirus\_pandemic</a> accessed on 31/03/2020.