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A tangled triangle of 'Society – COVID-19 – Information': LIS professionals should play an important role

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Short Biography: Dr. Jana is working as Assistant Professor in the Department of Library & Information Science, University of Kalyani, W.B. He has passed MLIS (Gold Medalist) from J.U. in 2001. Later he has also completed PGD in Digital Library Management (Standing 1st in merit list) and Ph.D. from J.U. Earlier he passed M.Sc (Geology) from C.U. and DPM, IR & LW from SLI, Govt. of W.B. He has written three books and near about hundred research articles published in reputed journals, conference proceeding, book chapters etc. He has also delivered/presented invited lectures and papers in different forums. His domains of interest mainly are Knowledge Organization, Scientometrics, and Digital Resource Management.

Abstract: Society's one of the important attributes is the social interaction. However, the recent COVID-19 pandemic disease has drastically affected the norms and communication patterns in our societies. This viral disease has

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forced us to maintain, stay home stay safe. Moreover, day after day the WHO directs us new information towards combating of this deadly virus. As of now, there are no medicines or vaccines for this viral disease. The only thing we can do is 'Social Distancing'. Therefore, we are getting unsocial. However, being a human, we need to communicate with each other to maintain the physical distance. Here, information communication via a network is the only mean to be social. In this context, various tools and apps play an important role to bridging the gap evolved during this pandemic situation. The tools comprise social networking, virtual learning, video conferencing, money transferring, movies, songs, etc. This paper depicts the tangled relationship among these three components, namely society, COVID-19, and information in three vertices of a triangle. At the end of the day, right information can combat the spread of COVID-19 and restore our societal normal activities.

Keywords: Society; COVID-19; Coronavirus; Information communication; Social interaction; social distancing, LIS professional

1 Introduction

The present pandemic situation across the globe is forcing us to acquire some new norms and break some old and tested customs. Before the occurrence of COVID-19, societies were ran smoothly with their own pace, style, and magnitude. The sudden presence of this tiny but deadly virus has massacred all things we have organized in our beautiful society. However, everything in our surroundings will flow in its own way, maintaining the overall ecosystem of the globe. In this regard, information will play a crucial role to combating this pandemic disease. Virtual information communication can supplement societal interaction.

2 Objectives of the study

This study was carried out to know the present scenario of society due to the attack of pandemic COVID-19 across the globe. The specific objectives are as follows:

- To know how society is behaving in the present pandemic situation
- To establish the relationship between the number of COVID-19 positive cases and the population of the countries
- To know the role of information in reshaping societal norms and functions
- To find out the relation between the spread of coronavirus and use of different virtual information communication systems

3 Conspectus

Before discussing the tangled relation among society, COVID-19, and information, we should know what about and where about these three components.

3.1 Society

The term "society", which came from the Latin word societas, generally designates persons belonging to a specific in-group. In anthropology, the term is used to refer not only to a group of people but also to the complex pattern of the norms of interaction that arise among them. Society may be defined from two perspectives. In abstract terms, society may be treated as a network of relationships between people or between groups. However, in concrete terms, it is a collection of people or an organization of persons (Mandal). We all know that society is a group of individual human beings involved in social interaction, or a large social group sharing the same geospatial or social territory, typically belong to a particular political authority, and dominant cultural expectations. Societies are characterized by patterns of relationships and interactions between individuals who share a distinctive culture and institutions; a given society may

be described as the sum total of such relationships among its constituent of members. In the social sciences, a larger society often exhibits stratification or dominance patterns in subgroups. The present post-industrial or information society is dominated by information, services, and high technology more than the production of goods. The strategic resource of society is information. Advanced industrial societies are now seeing a shift toward an increase in service sectors over manufacturing and production. Service industries include government, research, education, health, sales, law, and banking (Society).

According to MacIver, "Society is a system of usages and procedures, of authority and mutual aid, of many groupings and divisions of controls of human behavior and liberties. This ever-changing complex system is called society. It is the web of social relationships." According to Giddings, "Society is the union itself, the organisation, the sum of formal relations in which associating individuals are bound together" (Northcott, 1918). Society is characterized by likeness, abstract nature, permanency, difference, interdependence, cooperation, conflict, competition, accommodation and assimilation, sociability, etc.

We, the human being, are different from other animals mainly from two aspects: rationality and socialization. Therefore, we like and love society, and feel happy to be a part of society. We need cooperation, relation, love, sympathy, information communication, sharing, etc. No society is self-sufficient from all respect in the present context of globalization. For our livelihood, we always need social relations and social interaction.

3.2 COVID-19

Coronaviruses are a group of related RNA viruses that cause diseases in mammals and birds. In humans, these viruses cause respiratory tract infections that can range from mild to severe. The common cold is due to the mild infection, while a more severe infection can cause SARS, MERS,

and COVID-19 (Wikipedia). COVID-19 was first reported on 31st December 2019 in Wuhan, Hubei Province, China with the symptom of a cluster of cases of pneumonia. COVID-19 i.e., a novel coronavirus, was eventually identified. There are currently no vaccines or antiviral drugs to prevent or treat human coronavirus infections (World Health Organization, 2020).

3.3 Information

Information is a chain of organized and meaningful data. Now, we belong to the information society, where information plays an important role. Information is now treated as a basic need besides food, clothing, and shelter. Without having information, no one can survive for a long time. In a society, social interaction can only feasible through the information communication process, may be face-to-face or via a communication network. Whatever be the means, and format, we need information to live in a healthy way. Information can replace all other resources, such as capital, labour, and energy, etc. We may define information using a formula, which is called the fundamental equation of information science given by Brookes.

$$K[S] + \Delta I = K [S+ \Delta S] \quad (1)$$

Here, K[S] represents the existing knowledge structure of an individual and Δ I is a bit of information. K[S+ ΔS] indicates the modified knowledge structure after assimilating the new information (Δ I), where ΔS is an indicator of the effect of modification. Brookes had confusion about the use of = in this equation. However, he wanted to define the information in a mathematical way. After adding something into a knowledge structure, if it is modified due to this inclusion, then the thing/idea/concept that is inputted is called information (Castro, 2013).

4 Literature review

I did not find any specific research on the present domain of study. However, many studies have already been done on the peripheral components of the

subject concerned. V. Prashad (2020) pointed out that cruel viruses have confronted a destroyed society. He told that the COVID-19 pandemic has laid bare the failure of the capitalist and neo-liberal regime towards combating the virus. However, people have shown their support for a democratic socialist state that places the health of its populace at its center. He also suggested that the politicians need to listen to this pandemic situation. Another study conducted by A L Wright et al. (2020) emphasized the places of social inclusion as important institutions in democratic society, which can play an important role during pandemic situations like COVID-19. They also revealed the theoretical and practical importance of places as institutions, deepened understanding of custodians and custodianship as a form of institutional work, and offered new insight into the dynamic processes that connect emotions and institutional work. F. Galli et al. (2020) in their paper entitled "Better prepare for the next one. Lifestyle lessons from the COVID-19 pandemic" told about the changing lifestyle in the post-COVID-19 society. A paper entitled "COVID-19: potential effects on Chinese citizens' lifestyle and travel" conducted a study and predicted that COVID-19 will likely affect consumption patterns (the growing popularity of free and independent travel, luxury trips, and health and wellness tourism) of the Chinese travelers'. The study also indicated new forms of tourism including slow tourism, and smart tourism, in near future. The COVID-19 outbreak has already brought a significant impact on nearly every society and industry, study revealed (Wen, Kozak, Yang, & Liu, 2020). A study of 120 responses was analyzed from the respondents of the three Southeast Asian countries (Bangladesh, India, & Nepal) during the recent pandemic. During this COVID-19 lockdown state, there were various factors that were likely to influence intimacy, resulting in an alteration in sexual behaviors. Some factors that facilitated sexual intimacy were increased time spent together, little opportunity for recreation, less work burden, less social or family obligations. However, there were several factors that adversely affected sexual life were - more chances of interpersonal conflicts, stress, lack of privacy, and medical issues (Yasir Arafat, Alradie-Mohamed, Sharma, & Kabirb, 2020).

A survey among the students pursuing various undergraduate and postgraduate courses at those universities in the capital city of Bhubaneswar, Odisha, India and a total of 621 feedbacks were collected. The study revealed many aspects of the changing lifestyles of the students. Although they were somehow aware of the term novel coronavirus (nCoV), a thorough knowledge gap was observed (Samal & Jena, 2020). In this regard, H. Yang et al. (2020) carried out a study to know the attitudinal and behavioral patterns of university students in Wuhan, the first epicenter through online surveys among more than 8000 students from four elite national universities located in Wuhan. The study observed widespread psychological stress among students but positive behavioral compliance with personal hygiene practices. The students demonstrated a high demand for transparency of information disclosure. M. Javaid (2020) conducted desk research through a thorough literature search, and identified several components of Industry 4.0, which could have the potential to fulfill customized requirements during the COVID-19 crisis. They found several useful technologies of Industry 4.0, which help for properly control and manage of the COVID-19 pandemic, and these could help the detection and diagnosis of COVID-19 and other related problems and symptoms. It is useful to provide day-to-day updates of an infected patient, area-wise, age-wise, and state-wise with proper surveillance systems. They also believed that the proper implementation of these technologies would help to enhance education and communication regarding public health. These Industry 4.0 technologies could provide a lot of innovative ideas and solutions for fighting local and global medical emergencies. Z. I. Almarzooq et al. (2020) in their paper described different disruptive technologies and how these technologies could help graduate medical students towards smooth running of virtual learning during the COVID-19 pandemic.

The paper entitled "COVID-19 and the 5G conspiracy theory: Social network analysis of twitter data" performed a social network analysis and content analysis of Twitter data on drivers of fake news from a 7-day period (Friday,

March 27, 2020, to Saturday, April 4, 2020) in which the #5GCoronavirus hashtag was trending on Twitter in the United Kingdom. Influential users were analyzed through social network graph clusters. The size of the nodes was ranked by their betweenness centrality score, and the graph's vertices were grouped by cluster using the Clauset-Newman-Moore algorithm. This paper also showed that fake news websites were the most popular web source shared by users although YouTube videos were also shared. The study also identified an account whose sole aim was to spread the conspiracy theory on Twitter. This study was the first to analyze the 5G conspiracy theory in the context of COVID-19 on Twitter offering practical guidance to health authorities in how, in the context of a pandemic, rumors may be combated in the future (Ahmed, Vidal-Alaball, Downing, & Seguí, 2020). C. O'Connor and M. Murphy (2020) carried out a study regarding false messages that were predominantly compromised of text, but some images had been shared, with text describing information that was factually discordant with the image. Voice notes have also been used to share false information, with local accents to increase credibility. Medical misinformation has centered on key themes: food and beverages as cures, hygiene practices, and medicines. They have seen the implications of these fake messages in clinical practice in Cork during this epidemic. The World Health Organization has confronted fake news by offering a WhatsApp service (+41798931892) for updates. Based on evidence, they pointed out that healthcare professionals can stop the spread of false information by refuting or rebutting misleading health information on social media and by providing appropriate sources to accompany their refutation. Another study conducted on social media during the COVID-19 pandemic. This study showed that social media played a crucial role in spreading awareness, and knowledge about public health; however, it had also been misused for spreading fake news, hatred and creating racism during epidemics and civil unrest. This paper discusses how social media and societal responses to COVID-19 negatively affected its control measures in India and what should be possible corrective measures (Kadam & Atre, 2020). The novel coronavirus (2019-nCoV) outbreak has had a significant

impact on global health. The emergence of misinformation and racism against patients and Chinese visitors also reached critical levels. On Jan 29, 2020, one Japanese social media outlet uploaded the news story *Will the Tokyo 2020 Olympics be suspended?*,citing an article in *Süddeutsche Zeitung*. However, the original article simply referred to ongoing communication between the International Olympic Committee and WHO, and there was no reference to the possibility of suspending the Olympic Games in Tokyo in 2020. Furthermore, fake news has led to xenophobia towards patients and Chinese visitors. On Jan 24, 2020, misinformation that "Chinese passengers from Wuhan with fever slipped through the quarantine at Kansai International Airport" was disseminated through multiple social media channels. Although Kansai International Airport promptly denied this fact, discrimination against Chinese people has become widespread in Japan. In this situation, the mass media must also take responsibility for providing correct information and creating comprehension among citizens. Journalists have an important role in health communication and should acknowledge that their strong but inaccurate and misleading headlines agitate members of the public, cause fear, impinge on public communication, and diminish countermeasures for the outbreak (Shimizu, 2020).

S. L. Pan et al. (2020) in their paper entitled "Information resource orchestration during the COVID-19 pandemic: A study of community lockdowns in China" explored how elderly, young, and middle-aged individuals and children in six Chinese families who survived the lockdown resourced information and how they adapted their information behavior to emerging online technologies during the global health crisis. Universities from around the world have been uncertain about how long the coronavirus crisis will last and how it might affect the mental health of students and faculty. Psychological impact has been a critical disruptor, creating anxiety and uncertainty. A study based on cross-checked information from the main international newspapers revealed that coronavirus raises an important, and urgent issue that affects the mental health

of students in higher education. Blended learning between online teaching and distance learning was, thus, introduced as a tool in personalized learning to adjust to new realities. Anxiety and depression, exacerbated by uncertainties and intensification of the information flow, will grow extensively among students. Negative physiological consequences of stress will manifest. For instance, loneliness, which will increase under these circumstances, seems to have a negative impact on education and, therefore, on psychological pain and suffering (Araújo, Lima, L.S.A, Cidade, Nobre, & Neto, 2020).

5 Methodology

The present study is a theoretical desk research through a thorough scanning of different related literature. However, some secondary data about COVID-19 have been collected from different websites of WORLDOMETER and WHO. Other data about different means of virtual communication have also been collected from websites. These data were statistically analyzed using diagrams, graphs, bar-diagrams, and Pearson correlations. Finally, some relations have been established among COVID-19 cases, population, download/installation of apps/software for virtual communication, searching history, societal change, etc.

6 Tangled triangle of society, COVID-19, and information

As I mentioned earlier, a society is characterized by the interactions among the humans belonging to. The first and foremost criteria of a society is to provide a healthy environment for sharing information among members. Society, being an open system, has always tried to maintain its own norms keeping parity with the environment. However, recent pandemic COVID-19 has forced us to break and violate these time-tested societal norms. Since the end of 2019, the whole globe is experiencing a deadly pandemic situation due to the spread of viral disease, COVID-19. Unlike previous viral diseases, including other coronaviruses, COVID-19 differs totally as per spreading speed, contagiousness, and deadliness of mortality rate. There is no such vaccine or medicine to date to

protect us from this pandemic disease. The only thing we can do is to maintain social distancing, and to wear masks, and to sanitize hands.

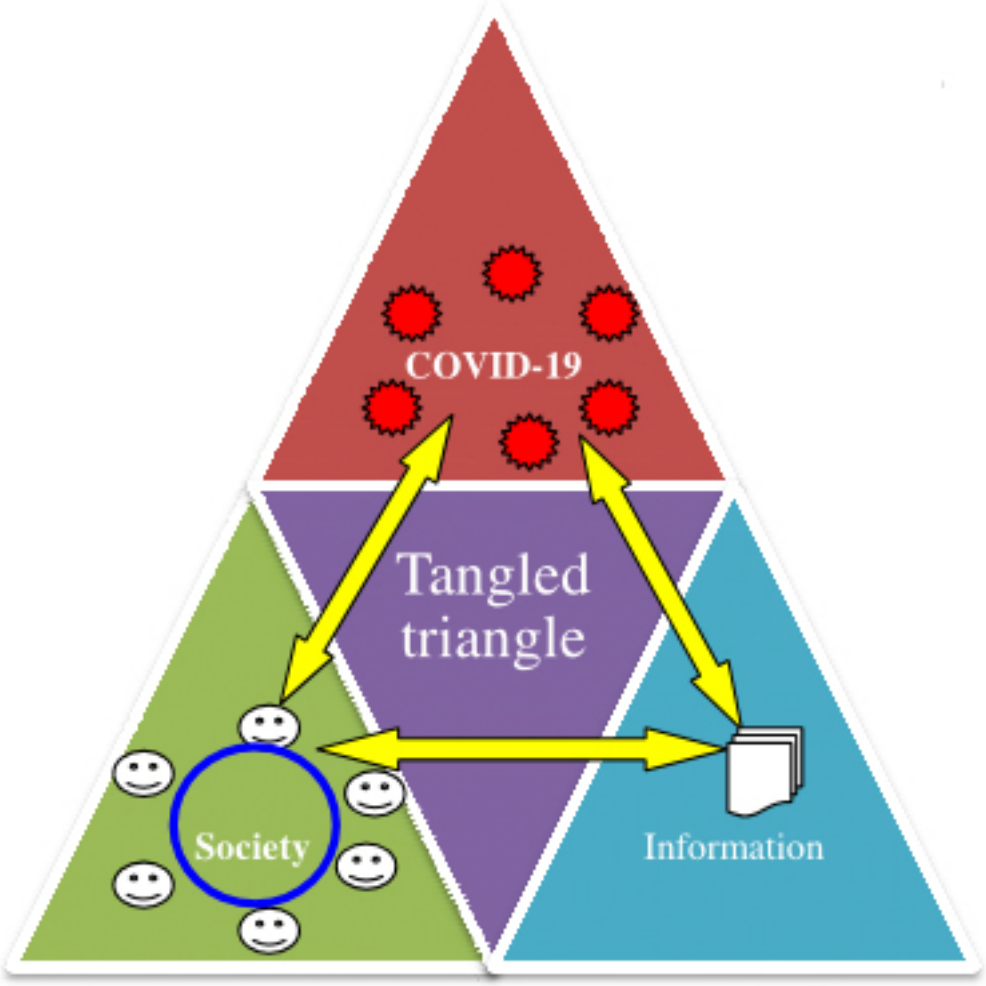

Figure-1: Society-COVID-19 and information in a tangled triangle

Society, on one side is trying to maintain social interactions among the members and other while COVID-19 forces us to maintain social distancing. All the actions towards fighting against COVID-19 i.e., lockdown, curfew, social distancing, containment etc. compel us to restructure the social norms. In this

tangled situation, right information should play an important role to reestablishing social norms in a different way in one hand and combat the spread and cure of this disease through research in other hand.

With the rise of this pandemic situation, information communication systems are trying to shape in a very different way. Table-1 shows that total COVID-19 positive cases more or less dependent on the number of tests and total population of the country, not on the geography, culture, economy, development, politics, etc. It spreads through the droplets due to coughing and sneezing. Therefore, population density and magnitude of social interactions are the prime factors for positive cases.

Table 1. COVID-19 disease in top 20 countries (as on 19th May 2020) [1]

Sl. No.	Country	Total Cases	Total Deaths	Total Tests	Population
1	USA	1,554,951	92,188	12,343,334	330,774,664
2	Russia	299,941	2,837	7,352,316	145,927,292
3	Spain	278,188	27,709	3,037,840	46,752,703
4	Brazil	257,396	16,941	735,224	212,380,932
5	UK	246,406	34,796	2,682,716	67,844,241
6	Italy	225,886	32,007	3,041,366	60,471,924
7	France	179,927	28,239	1,384,633	65,256,826
8	Germany	177,482	8,145	3,147,771	83,752,855
9	Turkey	150,593	4,171	1,650,135	84,230,075
10	Iran	124,603	7,119	716,176	83,862,642
11	India	103,292	3,179	2,404,267	1,378,381,772
12	Peru	94,933	2,789	661,132	32,915,899
13	China	82,960	4,634	No data	1,439,323,776
14	Canada	78,072	5,842	1,323,371	37,702,769
15	Saudi Arabia	59,854	329	601,954	34,747,330

[1]Source: https://www.worldometers.info/coronavirus/

16	Belgium	55,791	9,108	709,818	11,583,739
17	Mexico	51,633	5,332	177,133	128,770,253
18	Chile	46,059	478	381,011	19,096,687
19	Netherlands	44,249	5,715	302,395	17,130,492
20	Pakistan	43,966	939	400,292	220,356,788

Again, it is also clear from Figure-2 that there is an overall conformable relation among the number of tests, number of cases, and number of deaths in the case of 20 top COVID-19 affected countries.

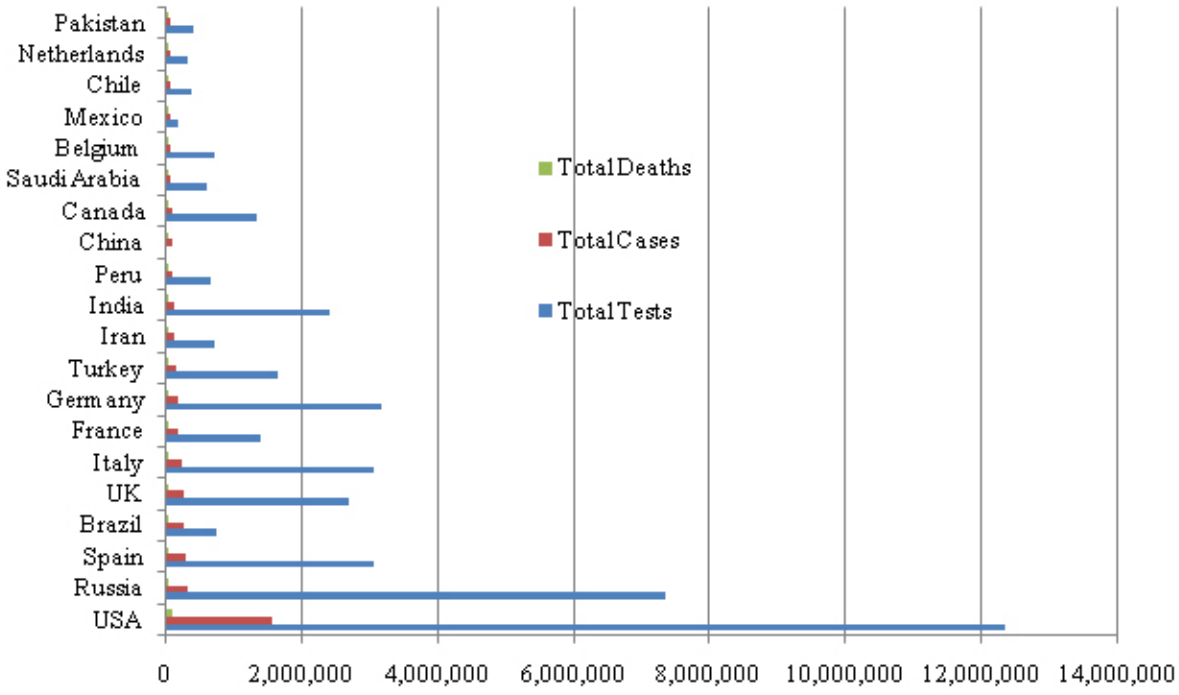

Figure 2. Total tests, total cases, and total deaths of the top 20 countries[2]

Now, if we want to see the correlation between number of the COVID-19 cases and the population of the countries, then we can get some idea about the nature

[2]Source: https://www.worldometers.info/coronavirus/

of the spread of disease with respect to population. The data were collected from Worldometer website[3]. Here, I considered 118 top countries based on higher COVID-19 positive cases and calculated the Pearson correlation coefficient. Actually, beyond these 118 top countries, some data are missing from the source; therefore, I selected 118 as the sample size (COVID 19 coronavirus pandemic, 2010). The detailed calculations are given below:

X = Number of COVID-19 positive cases in different countries

$\sum X = 4972428$

M_x = Mean of X values = 42139.22

$\sum(X - M_x)^2$ = Square of Deviation of Mean of X = SSx = 2779488968978.27

Y = Population of different countries

$\sum Y = 6941359790$

M_y = Mean of Y values = 58825082.966

$\sum(Y - M_y)^2$ = Square of Deviation of Mean of Y = SSy = 4.0778905819079E+18

X and Y Combined

N = Number of top countries based on COVID-19 cases = 118

$\sum(X - M_x)(Y - M_y) = 743236313946974$

$R = \sum((X - M_y)(Y - M_x)) / \sqrt{((SSx)(SSy))}$

$R = 743236313946974 / \sqrt{((2779488968978.27)(4.0778905819079E+18))} = 0.2208$

The value of R is 0.2208

Although technically a positive correlation, the relationship between the two variables (number of COVID-19 cases and population of the countries) is weak. However, to know whether it is significant or not, we need to calculate the P value. Now, we have to calculate the P value from the Pearson correlation coefficient R. The P value, using the R Score (0.2208), and N number of samples (118 countries) at 0.05 significant level is 0.016274. Therefore, the

[3] Source: https://www.worldometers.info/coronavirus/

result was significant at $p < 0.05$. Now, we can say that the number of positive COVID-19 cases is directly proportional to the total number of population of the country. As a high population accelerates the higher chances of social interactions, hence disease spreads quickly. Again due to this huge spread over the countries, strict measures like lockdown, curfew, contentment, and social distancing are implemented which, in other way is contrary to obey social norms.

We all know that society has so many social institutions and places like school, college, club, temple, cinema hall, market, bank, office, etc. where people meet and interact together for different objectives. All these facilities are partially or totally stopped in time being; however, we have to avail these facilities through different modes of communication. Here, information is playing such a tremendous job. Everything is going on in a virtual environment. Most of the functions like banking services, education and learning, video meetings, seminars, advisory messages and news about this disease etc., to keep the society alive are happening through information communication networks.

Now, we will see the timeline of the number of confirmed corona cases and death across the globe. Figure-3 shows that after middle of March 2020, the total COVID-19 cases and deaths are continuously increasing.

Figure 3. Confirmed cases and death statistics of COVID-19 over time[4]

If we go through some statistics of searching interest of keywords/phrases, it is noticed that how we are approaching to accept digital means to smooth running of our societal activities over time with the rise of COVID-19 positive cases across the globe. I took statistics on the usage of some search terms through Google. I used nine keywords such as 'online class', 'meeting app', 'coronavirus fake news', 'online course', 'work from home', 'zoom video communication', 'tele medicine', 'webinar', and 'video conference' to get the searching interest in all categories among the people throughout the continents during 26th May 2019 to 26th May 2020 (Figure-4). The data shows that the interest in searching these terms reached its culmination more or less in and around 26th March 2020, which again approximately matched with the rise of COVID-19 positive cases (Figure-3). Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means there was not enough data for this term.

[4] Source: https://www.worldometers.info/coronavirus/

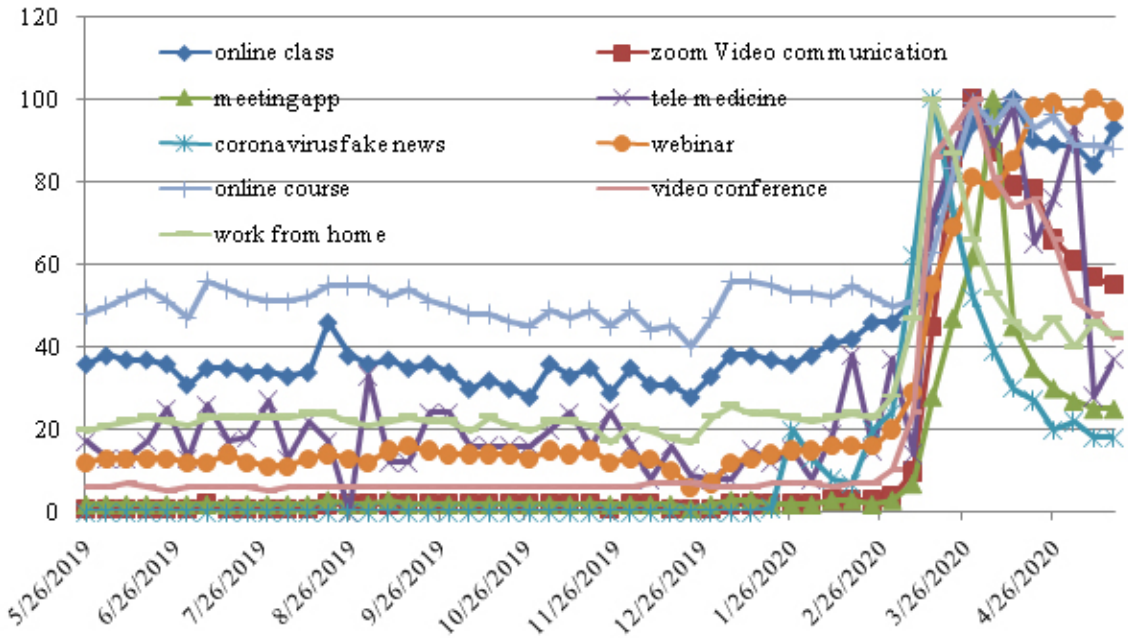

Figure 4. Search interests of some terms in Google during pandemic

The statistics of download / installed and use of different apps or software across the globe show that how people eager to use virtual means of communication, social networking, video meeting, etc., towards rebuild social interactions and activities during this pandemic situation and some gaming and entertainment apps to spend time during lockdown (Table-3). Most of the educational institutions across the globe are trying to cope with online classes using business apps like Zoom and Google meet etc. Most of the employees from different service organizations are doing their work from home. All these apps played a tremendous role in providing required and authentic information during this COVID pandemic.

Table 2. Ranking of Android apps as on 24th May 2020[5]

INDIA			**USA**		
Rank	**App**	**Category**	Rank	App	Category
1	Aarogya Setu	Health & Fitness	1	ZOOM Cloud Meetings	Business
2	Mitron	Social	2	Recharge Please!	Puzzle
3	Ludo King™	Board	3	TikTok - Make Your Day	Social
4	TikTok - Make Your Day	Social	4	ASMR Slicing	Simulation
5	WhatsApp Messenger	Communication	5	Rolly Legs	Arcade
6	ZOOM Cloud Meetings	Business	6	Messenger – Text and Video Chat for Free	Communication
7	Garena Free Fire: Wonderland	Action	7	Repair Master 3D	Simulation
8	Google Pay - a simple and secure UPI payment app	Finance	8	Instagram	Social

[5] AppBrain. https://www.appbrain.com/stats/google-play-rankings/top_free/all/in.

9	Carrom Pool: Disc Game	Sports Games	9	Google Meet	Business
10	Instagram	Social	10	Cash App	Finance
11	UVideo - Make Your Life Story into Video Status	Entertainment	11	Coin Master	Casual
12	Helo - Discover, Share & Communicate	Social	12	Wish - Shopping Made Fun	Shopping
13	Hunter Assassin	Action	13	WhatsApp Messenger	Communication
14	Facebook	Social	14	Snapchat	Social
15	SHAREit - Transfer & Share	Tools	15	Roblox	Adventure
16	Google Meet	Business	16	Netflix	Entertainment
17	TikTok Lite	Video Players & Editors	17	Facebook	Social
18	Truecaller: Caller ID, spam blocking & call record	Communication	18	Walmart Shopping & Grocery	Shopping
19	MX Player	Video Players & Editors	19	Spotify: Listen to	Music & Audio

				new music, podcasts, and songs	
20	PUBG MOBILE LITE	Action	20	Wayfair - Shop All Things Home	Shopping
21	VMate	Video Players & Editors	21	Fishdom	Puzzle
22	Telegram	Communication	22	Dancing Road: Color Ball Run!	Music
23	Temple Run 2	Action	23	Disney+	Entertainment
24	Tik Kik	Entertainment	24	SpongeBob : Krusty Cook-Off	Casual
25	Likee - Formerly LIKE Video	Video Players & Editors	25	DoorDash - Food Delivery	Food & Drink

Increased demand for Houseparty, ZOOM, Hangouts Meet, and Microsoft Team has seen due to work from home policies, social distancing measures, and government lockdowns during the coronavirus pandemic in Europe. Business apps topped 62 million downloads across iOS and Google Play during the week of March 14-21, 2020 worldwide, its biggest week ever. This was up to 45% from the week prior, the highest growth among any category across the app stores combined that week, and up 90% from the weekly average of Business app downloads in 2019. Record-levels of consumers

demand work connectivity and accessibility from their mobile as the COVID-19 pandemic intensifies in Europe and the US (Sydow).

When we look at the popularity of apps across different parts of the world, some interesting observations appear. If we plot different apps in a graph where the number of downloads and number of active users on the x-axis and y-axis, respectively, show the statistics of various apps in four quadrants for the areas namely North America (NA), India (IN), Europe (EU), Middle East (ME), South East Asia (SEA), and Middle East Asia (MEA) during this COVID-19 pandemic (Table-5). The graph is self-explanatory in nature (Jones, 2020).

Figure 5. Global impact of COVID-19 on mobile apps of different sectors[6]

7 Role of Information Professionals

Information helps to adjust isostasy in the tangled situation evolved with the interaction between the COVID-19 pandemic and societal activities as a whole. Library and information professional should play an important role in this

[6] https://www.visualcapitalist.com/covid-19-impact-on-app-popularity/

regard. They have experiences to handle huge number of information in an organized way and disseminate right information in right time. It was found that a huge number of misinformation and disinformation were evolving all around the globe during this COVID-19 pandemic. The fake news in social media and news are still obstructing the process of equilibrium in our society. If we see a statistics in a study (Table-6), from just two in the third week of January 2020, the instances of misinformation rose to 60 by the first week of April 2020. Though fake stories around a cure for COVID-19 lessened in this period, false claims that affected people emotionally increased, the study found. The study used 243 unique instances of misinformation from an archive maintained by Tattle Civic Technology (a Delhi-based news project that aims to make accurate information more accessible to mobile-first users) (Salve, 2020).

COVID-19 pandemic and side-by-side infodemic, both have worsen the situation, and trying to imbalance the equilibrium in our society. Now fake news is travelling faster than COVID-19 cases. This is the right time for information professional to prove their credibility and responsibility toward our society.

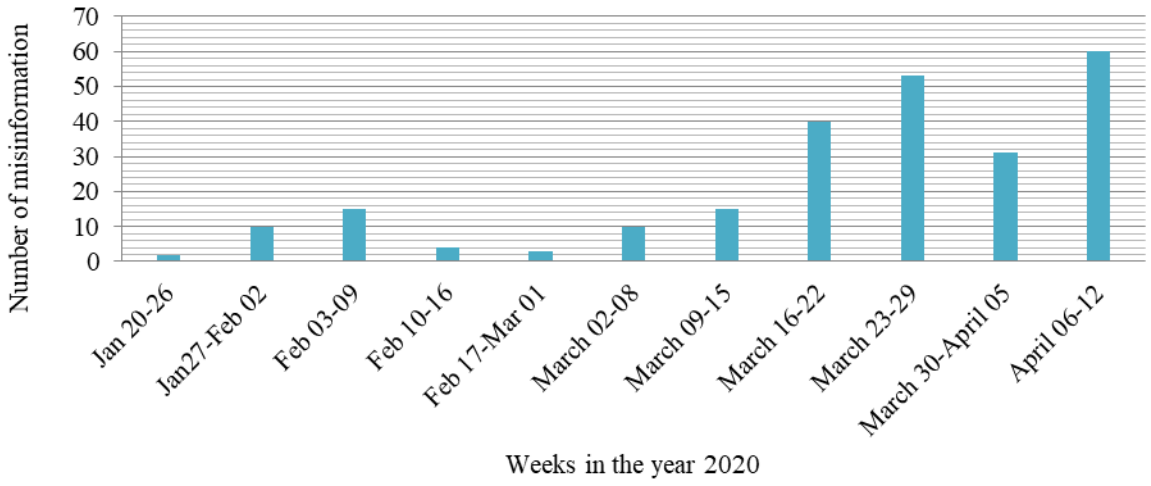

Figure 6. Increase in the number of misinformation during COVID-19 pandemic

I think information professionals can do following things in this pandemic to normalize the tangled situation.

- There are so many online detection tools such as AltNews, BOOMlive, Factly, Botometer, FactCheck.org, Hoaxy, Politifact, Snopes, etc. (Stellino, 2019), through which they can verify whether the communicated news is fake or not.
- After identifying the fake news, facts should be circulated/posted in the same social networking platform/group from where these were seen.
- They should create website, blog, or social networking pages for providing list of fake news/misinformation/disinformation with links.
- They should create website, blog, or social networking pages for providing list of useful information about COVID-19 with authentic sources.
- They should organized webinar to provide right information about this pandemic.

8 Conclusion

In conclusion, it can be stated that although this pandemic has tried to destroy the normal lives of people in our society throughout the world, we the rational, intelligent, and social animals have also tried to adapt ourselves using a virtual information system. As I stated that human beings are rational animals, they should think rationally by using earlier facts and information. Still people may be confused by consuming fake information. However, information professionals should take active participation toward normalize this pandemic as well as infodemic.

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