Listed in
Ulrich's International Periodicals
Directory, USA

Research Papers/Articles

Pragyaan: Journal of Mass Communication

Panel of Referees

From the Editor

Mass Media is a significant force in modern culture and society. It has the power to mobilize mass movements. When Mass Media has become one of the most dynamic and fastest growing disciplines of our times, particularly in India, Pragyaan: Journalism of Mass Communication (Pragyaan: JOMC) has the responsibility to explore all the significant changes and developments and to provide insightful research on new trends in the area of mass media and communication. Pragyaan: JOMC is a bi-annual, peer reviewed, open access Journal. The Journal welcomes high quality research papers/articles, review articles and case report describing original research in the fields of communication and mass media studies. This issue of Pragyaan: JOMC presents six research papers/articles covering diverse areas of Mass Communication.

In this issue, the first paper on "Child Security Monitoring System Based on Internet of Things" attempts to understand the role of children tracking devices in decreasing the crime rate among children abuse cases and increase safety to the children in some troubled and accidental situations. Second Paper "Artificial Intelligence in Journalism - A Bibliometric Review" aims to understand the applications of artificial intelligence (AI) in journalism and its development. A third study on "Sharing Information on Social Media: A Study on Media Students" attempts to determine the use of social networking sites, information sharing, and the accuracy of content by media students and also identify the perspectives of media students on misinformation spread through social media. Fourth paper on "Dissemination of Nationalism Thoughts Through Indian Press: An Analysis of Southern Newspapers During Freedom Struggle" identifies the various a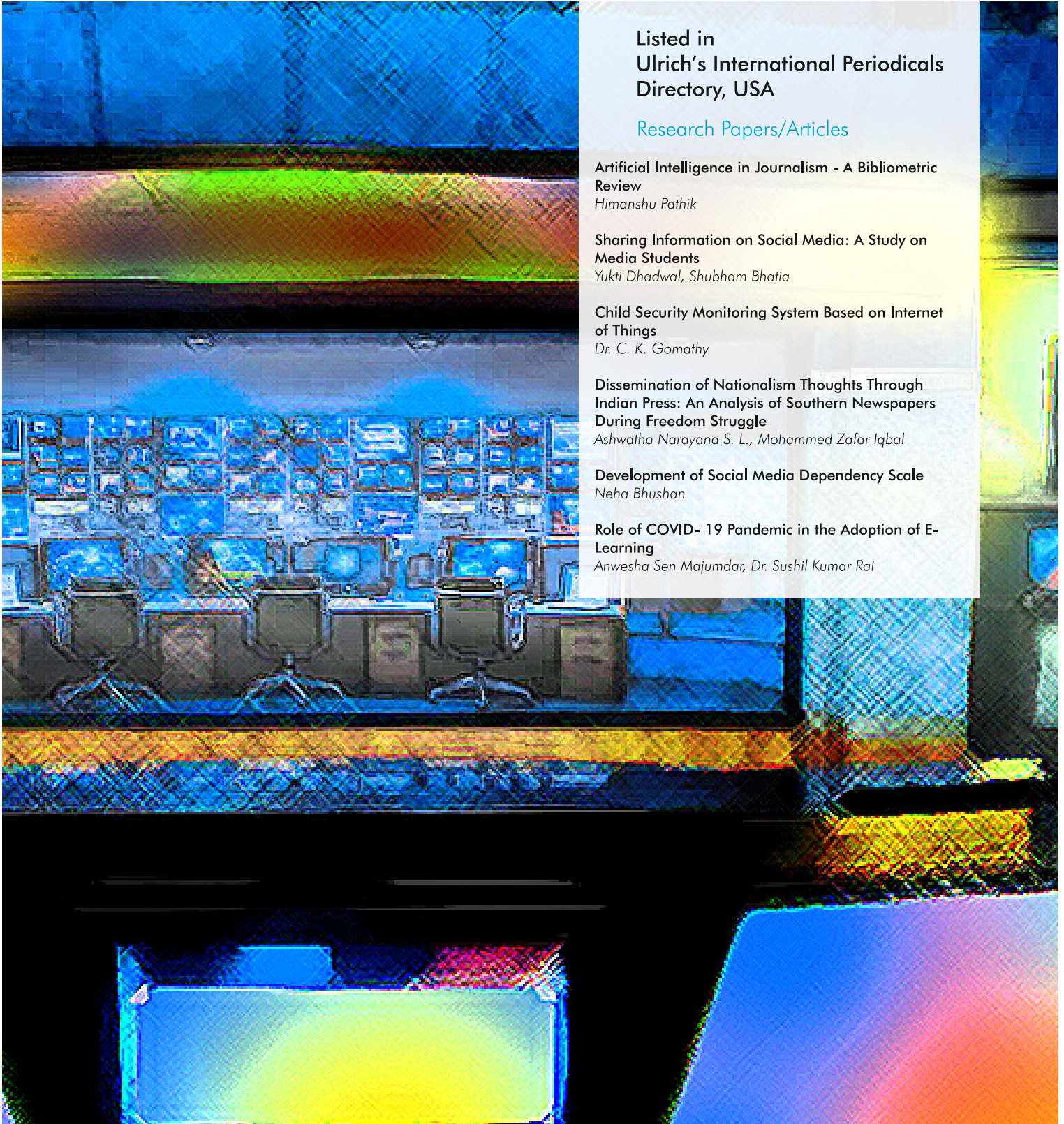spects of website content and design which act as determinants that influence branding, by carrying out an extensive review of literature on branding in digital media, specifically websites. Fifth paper entitled "Development of Social Media Dependency Scale" has attempted to develop a self-assessment reliable and valid social media dependency scale. A sixth study on "Role of COVID- 19 Pandemic in the Adoption of E-Learning" attempts to elicit relevant evidence on e-learning and its challenges in the era of the COVID-19 pandemic.

We are thankful to the authors for their scholarly contributions to the Journal. We express our gratitude to our panel of referees for the time and thought invested by them into the papers and for giving us sufficient insights to ensure selection of quality papers. We would like to acknowledge the valuable contributions of Prof. Gautam Sinha (Vice Chancellor), Dr. Vikash Singh (Associate Editor) and Dr. Varsha Sisodia (Associate Editor) and all the faculty members of School of Media & Communication Design in preparing the reader friendly manuscript for the Press.

We hope our readers find the contents, findings and suggestions contained in this issue of Pragyaan: JOMC as informative, stimulating and of practical relevance. We welcome comments and suggestions for further improvement in the quality of our Journal.

Thanking You

With Best Wishes
Dr. Sushil Kumar Rai

Pragyaan: Journal of Mass Communication

Volume 20, Issue 1, June 2022

CONTENTS
Research Papers/Articles

Artificial Intelligence in Journalism - A Bibliometric Review

*Himanshu Pathik

ABSTRACT

This review paper aims to find meaning within the contemporary research and applications of artificial intelligence (AI) in journalism. It attempts to adapt the timeline of AI development to the field of journalism. The researcher leverages the strengths of bibliometric data analysis coupled with visualization of the results to yield graphical snapshots which make the readers relate to the results in a meaningful way and also pave way to scientifically refute any findings that are otherwise not possible in statistical presentation of results. By identifying the pre-requisites for using artificial intelligence and the stage of current practices in artificial intelligence, the researcher uses bibliometric data and twitter posts to carry out visualization analysis through Biblioshiny (R Studio) and Netlytic on Artificial Intelligence in Journalism. As the field of social science research is quite subjective, the focus of the research is on replicability and a scientific reduction of confirmation bias. The PRISMA flowcharts updated in 2020 were used to include relevant papers in the review through inclusion and exclusion criteria. The results are visualized through keyword analysis by co-occurrence network, dendrogram-conceptual structure map; factorial & thematic maps and sentiment analysis.

Keywords: Artificial Intelligence, Journalism, News, Media, Netlytic, Biblioshiny, Visualization, PRISMA

1. Introduction

Artificial Intelligence (AI) is a complex series of algorithms that learn after each cycle of application — (Mathis, 2018). AI can predict and understand patterns, acquiring learning behaviours similar to a human. AI and machine learning capabilities can lead to autonomy, so far confined within the limits specified by the human operators. It has applications that are un-attainable by any human organisational setup. A common consumer passively subscribes to a lot of AI applications today and it could be as simple as translated typing and the choice of films presented on OTT platforms. Yet, AI is not affordable to most of the news organizations in terms of hiring the required workforce, or using sophisticated computing as required in the first iteration of programming computers to work on their own (Broussard et al., 2019). Also, AI can be as flawed as its creators are, since they are human beings with all their biases and political underpinnings –(Shilton, 2018). AI in journalism requires huge data sets, which are beyond comprehension of humans, and free from ambiguity. In investigative journalism specially, the one-off projects require a serious thinking on long term benefits versus creating a customised AI solution for a particular data-set (Stray, 2019). The contemporary applications which are emerging from this limitation, are being adopted as AI infographics based on graph theory, using directionality and clustering to make sense of the structured data obtained from live data sets. The other major application in the form of automated news presenters or AI newsreaders depends on the authenticity of the process. The three dimensions affecting the process are message credibility, source credibility and medium credibility which require inputs other than programmable instructions (Appelman and Sundar 2016, Metzger et al, 2003).

The following research questions are formed:

1. What is the focus of current research on AI and Journalism?

2. How are the concepts linked on current research on AI and Journalism?

3. In the past 5 years, which researchers or conference proceedings are the most important in the field of AI and Journalism?

4. Thematically, which areas should be of concern to a researcher studying about AI and Journalism?

5. What is the general sentiment of the public tweeting about AI and Journalism?

1.2 Objectives of the Study

The review aims to explore the current research conducted on Artificial Intelligence (AI) and Journalism. It attempts to find out relevant topics and authors studying AI and

*Research Scholar, School of Media & Communication Design, IMS Unison University, Dehradun, Uttarakhand.

Journalism, not merely by naming them but by establishing meaningful relationships in the form of graphs and visualizations, known as co-occurrence networks. Through dendrograms, the bibliometric analysis establishes the hierarchies and linkages of the keywords used in the contemporary research in AI and Journalism. Through factorial maps, the analysis finds the authors and conference proceedings which are not just highly cited, but are most relevant for any researcher studying the field of AI and Journalism. The themes which require most research, are identified along with themes which have been thoroughly studied and have reached saturation.

2. Literature Review

The literature review was done using Scopus Developer API with Harzing's PnP Software (Harzing, A.W., 2007). A search query was made (Search term: journalism OR media OR news AND artificial intelligence) and the search limited to 200 results was run. The search query comprised of Boolean search operators 'or' & 'and'. The search operator 'OR' was placed first, and the operator 'AND' was placed second in the sequence. The search results were exported to the required formats of Comma Separated Values (.CSV), Bibtex (.BIB), and optional formats such as RIS, JSON and APA References.

2.1 Beginnings of AI

Artificial Intelligence isn't new. It started with a summer math workshop in 1956 by John McCarthy in Dartmouth College, a premiere ivy league university in the United States (McCarthy et al., 1956). The workshop proposed the agenda of automatic computers, programming computers to use a language of reasoning and neuron networks, orderly thinking and self-improvement of such a machine. In the cold war, governmental research agencies in United States funded the machines which could to translate Russian telegraph-intercepts automatically. However, the machines were later dismantled. The British Science Research Council also gave a negative report of the capabilities of the machine intelligence, it could only perform repetitive tasks. Standalone systems and embedded technologies however continued limited scale applications of the technology (Vempati, 2016). The development can be charted in three distinct growth phases as follows:

Time	Development	Pre-requisite
1956 – 1999	Machine Intelligence	Complex Data
2000 - 2015	Artificial Intelligence, Machine Learning	Big Data, Analytics, Cognitive Sensors
2016 – 2022	Institutional AI, AR/VR	Data Cloud, AI through Software, Consumer Applications

2.2 Institutions re-shaping AI

In the past decade, three very large-scale institutions have helped reshape the approach to AI. Private and institutional research in AI, venture capital funding and even state sponsored AI projects in the recent past indicate the potential of the next big wave in the 4th phase of industrial revolution around the world (Meyer, 2019).

Google's DeepMind, working within machine learning, neuroscience, engineering, mathematics, simulation and computing infrastructure. It was founded by Demis Hassabis & Shane Legg. Demis Hassabis holds a PhD in cognitive neuroscience at UCL and was conferred the honour - Commander of the Order of the British Empire in 2018. Shane Legg holds a PhD from IDSIA (Dalle Molle Institute for Artificial Intelligence Research) in Switzerland. Founded in London, United Kingdom, DeepMind now has labs in UK, USA, Canada, and France. DeepMind is home to scientific researchers, ethicists, program managers, game designers and allows its researchers to teach at universities and has programs where students can also involve themselves in AI research. (Google, 2020)

IBM's Watson started out from New York, United States in 2014. It focused on healthcare sector, taking everyone by surprise in the field of patient diagnosis for common ailments. What started as a development of computing applications at Carnegie Mellon University by the name of Chip Test in 1985, evolved into brute-force computing with custom VLSI Chips by 1997. This year, IBM-owned supercomputer Deep Blue beat Garry Kasparov in a chess match, in a stunning corporate display of the capabilities of the computing system. The solutions which IBM's Watson offer to this day are highly sought in the field of weather forecasting, to designing smart cities. It continues to contribute in the field of Oncology. Watson is also deployed in natural language processing, visual recognition, supply chain management, financial institutions, infrastructure, risk management and Internet of Things (IOT), Cloud solutions (IBM, 2021).

Baidu's Institute of Deep Learning is a privately-owned multinational company. It is commonly known as China's Google. Andrew Yan-Tak Ng, currently an Adjunct Faculty at Stanford University was recruited by Baidu in 2014. He worked there for 3 years, making the single largest contribution to AI. Andrew Ng earlier worked for Google Brain Project and Deep Learning Project which involved neural networks in computing, bringing AI applications to the masses. Baidu is the most preferred search engine in China. It frequently makes AI solutions available to various

sectors of the industries. It is listed in the NASDAQ stock exchange and has presence in the United States (Baidu, 2021).

The journalism business is already at some level of expertise in convergence, as a function of innovation. Scalability and disruption as a way of 4th industrial revolution ensure its progress. We see multi-platform media where the media organizations routinely come up with content adapted to multiple distribution platforms (Chyi & Chadha, 2012; Doyle, 2015).

2.3 Stages of Innovation

News production through AI requires computational, perceptual and cognitive intelligence (Gui & Xu, 2019). The interesting part is Machine Learning, which automates the cycles of learning and performing tasks with that learning. The components of computational, perceptual and cognitive intelligence with a breakdown of the processes are in the following table:

Type of Artificial Intelligence	Task	Stage
Computational	Processing, analysing big data	Achieved
Perceptual	Listening and Seeing	Achieved, adoption slow
Cognitive	Gathering, Filtering, Creating, Publishing & Broadcasting	Limited successful trials

3. Research Methodology

Bibliometric Analysis and Graph Theory Visualizations are used as the research methods. Scopus search results are used to gather information about the latest research papers about AI, and limited bibliometric data is extracted for the research questions one to five. For the research question five, analysis of 10,000 Twitter posts relevant to the topic is run in Netlytic application.

Scopus Developer API was used to collect the data. In aggregate, 200 Papers (n=200) from previous 5 year period, i.e. 2017 – 2022 were searched. Papers written, published in, or translated to English were considered. One paper written and published in German was excluded, as the images and data in visualizations could not be translated. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) was used to include relevant studies.

4.1 PRISMA identification of relevant papers

Based on PRISMA flow chart (Moher, 2009), the following method was used to identify relevant papers:

4.2 Exclusion Criteria

- Reason 1 (NR): Non-Related Papers about business of AI but not the search string. (n = 39)

- Reason 2 (PR): Partially Related Papers which are focused on local journalism only. (n = 27)

- Reason 3 (LR): Loosely Related Papers which are only focused on social media and not journalism. (n = 91)

Total papers excluded: 157

4.3 Inclusion Criteria

- Papers which are fully indexed in the search

- Papers which are closely related to the search string

- Papers which are not under any exclusion criteria

- Published conference proceedings, which follow rigorous methodology and are at par with rest of the papers

Total papers included: 42
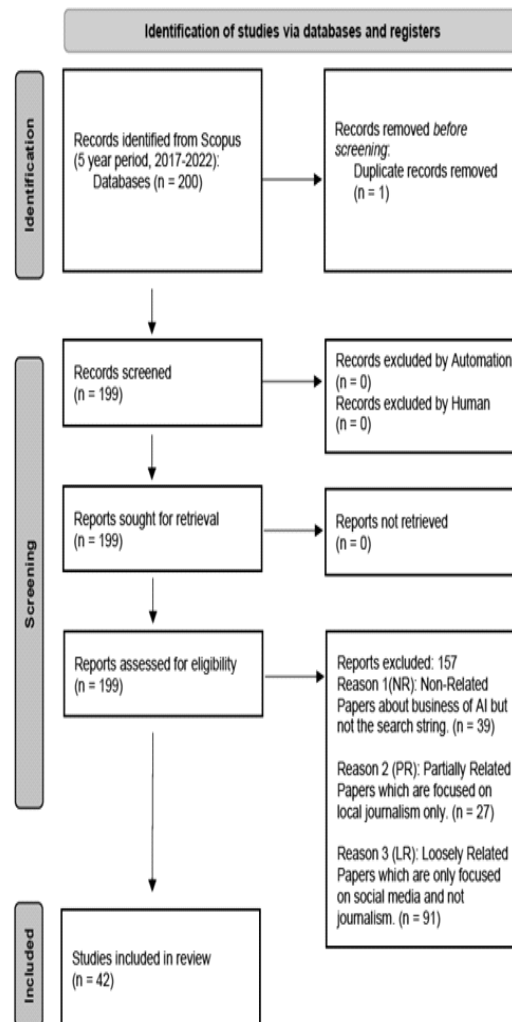
From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

Figure 1: Prisma Flow Chart 2020

5. Analysis

Biblioshiny and Netlytic Analysis was carried out. Analysis was done on the basis of research papers and conference proceedings published between 2017 and 2022 with the following search string: journalism OR media OR news AND artificial intelligence. Biblioshiny was used as a web-browser based bibliometric analysis tool with R-Studio Bibliometrix library. Netlytic analysis was used as a web-based analytic tool with twitter API. Text mining can determine areas of study from the literature review. It also presents a snapshot with which others can grasp the entirety of the literature. A keyword analysis with non-directed graph removes the bias of the researcher who may be compelled to prioritize particular areas of research.

5.1 Keyword Analysis: A keyword analysis was done on the papers, giving the following visualization in figure 2:

Research Objective 1: What are the focus areas of current research on AI and Journalism?
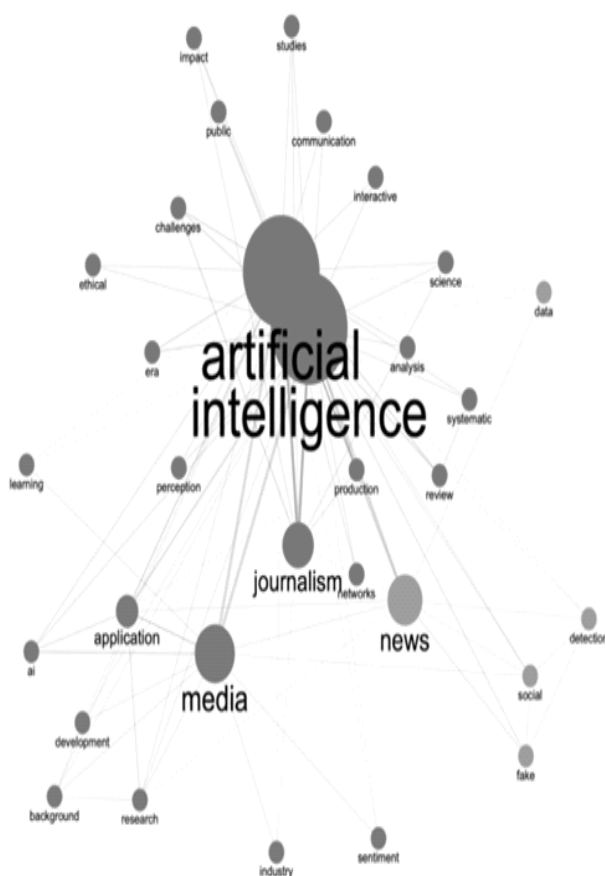
Figure 2: Co-Occurrence Network
(with R-Studio using Biblioshiny)

The semantic network of co-occurrence is based on text mining of the title keywords of the papers. The hubs of the co-occurrence network are of low relevance as they are the keywords of the search. The terms accompanying the major hubs or nodes are important as they give insight into what is being researched about the topic, and how they link to the topic.

5.2 Topic Dendrogram: A topic dendrogram shows the individual leaf nodes and the correlated terms in figure 3. Dendrograms are a summary of the distance matrix, from which contextual information is removed. The clustering mentions the keywords in a tree model.

Research Objective 2: How are the concepts linked on current research on AI and Journalism?
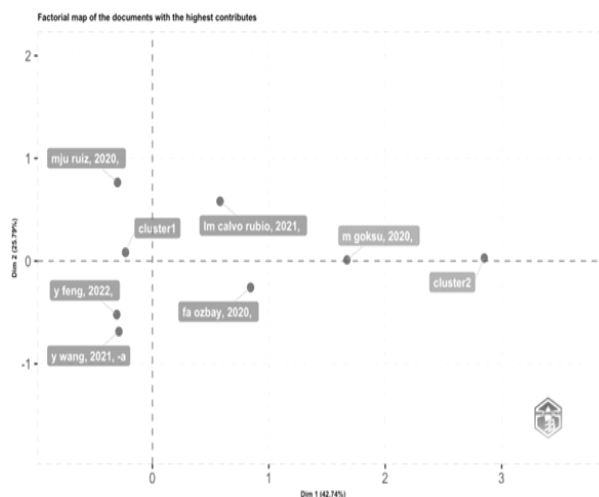
Figure 3: Topic Dendrogram (with R-Studio using Biblioshiny)

The hierarchical clustering of title keywords gives further interpretation of the analysis. The top-tier clustering is about systemic detection of the sources of misinformation, and the impact studies about all major themes such as challenges of journalism, media sentiment and application of AI. The information pertaining to the summary can be further obtained from a conceptual structure map.

The conceptual structure map visualizes the clusters in the dendrogram as follows:

Conceptual Structure Map - method: MCA
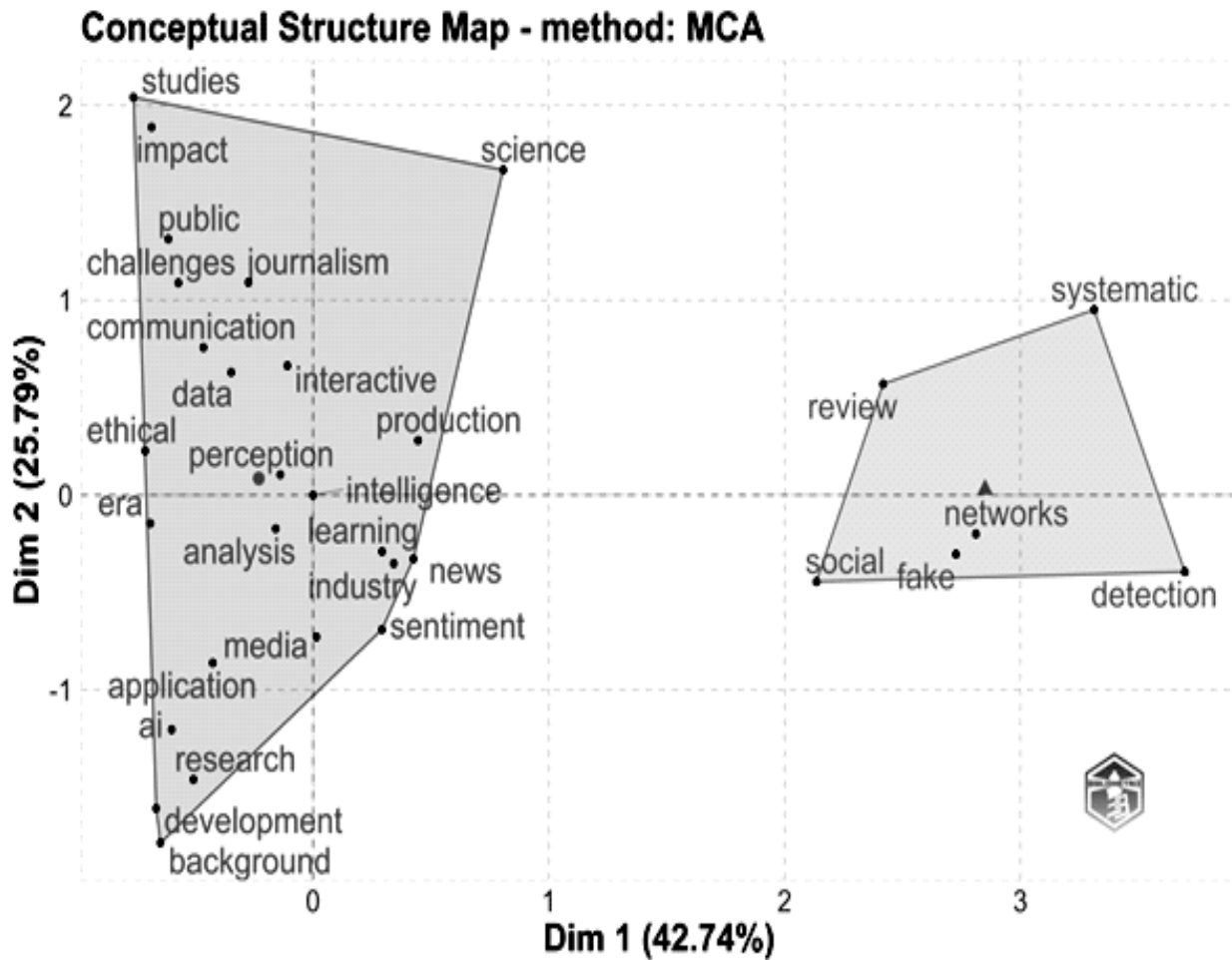
Figure 4: Conceptual Structure Map (with R-Studio using Biblioshiny)

5.3 Factorial Map: A Factorial Map of Documents with highest (topic) contributes in Figure 4:

Research Question 3: In the past 5 years, which researchers or conference proceedings are most important in the field of AI and Journalism?
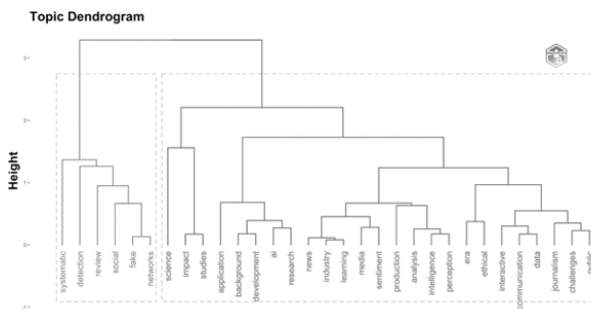
Figure 5: Factorial Map (Cluster 1 Refers to Conference Proceeding ICSCCW-2019, Cluster 2 Refers to Conference ISAIAM-2021) (with R-Studio using Biblioshiny)

The highest contributions come from the following researchers:

- María José Ufarte Ruiz, University of Castilla-La Mancha (UCLM), Spain;

- Murat Goksu, PhD Scholar, Near East University (NEU), Cyprus;

- Luis Mauricio Calvo-Rubio, University of Castilla-La Mancha (UCLM), Spain;

- Feyza Altunbey Ozbay, Firat University, Turkey;

- Ying Feng, Shandong Women's University, China; Yi Wang, Sejong University, South Korea;

- Cluster 1 refers to Conference Proceedings of International Conference on Theory and Application of Soft Computing, Computing with Words and Perceptions (ICSCCW-2019);

- Cluster 2 refers to Conference International

Symposium on Artificial Intelligence and its Application on Media (ISAIAM-2021).

5.4 Thematic map: A thematic map showing centrality of themes (x-axis) and density (y-axis) in figure 6: Thematic map showing clusters of themes from 2017 to 2022 identified by the co-occurrence network (refer to figure 2 for co-occurrence network)

Research Question 4: Thematically, which areas should be of concern to a researcher studying about AI and Journalism?

5.5 Netlytic Sentiment Analysis: Netlytic sentiment analysis was done on 10000 twitter posts with the search string: (journalism OR news OR media) AND (Artificial Intelligence OR AI OR A.I.).

Research Question 5: What is the general sentiment of the public tweeting about AI and Journalism?
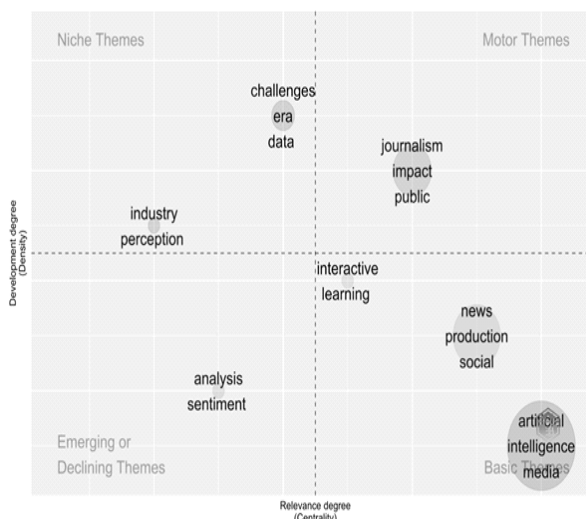
Figure 6: Thematic Map of Basic, Motor, Trending and Niche Themes (with R-Studio using Biblioshiny)

Axes / Quadrants	Definition	Interpretation/ Keywords
X Axis	The degree of interaction of a cluster	* Theme Importance
Y Axis	Internal strength of a cluster	* Theme Development
Q1: Motor Themes	Well-developed themes for research	* Journalism, Impact, Public
Q2: Niche Themes	Highly developed and isolated themes (but less importance for research)	* Challenges, Era, Data * Industry, Perception
Q3: Emerging / Declining Themes	Marginal themes, weakly developed	* Analysis * Sentiment (not same as sentiment-analysis)
Q4: Basic Themes	Transversal themes of the field	* Interactive, Learning * News, Production, Social * Artificial, Intelligence, Media

After filtering retweets and tweets containing the search terms only in hashtags, a total of 717 tweets were analysed (n=717). As identified from Gephi analysis (Bastian M., Heymann S., Jacomy M. ,2009) on the twitter networks, a large number of tweets were further removed which happened to be bots. The results show 89.26% positive sentiment with a dictionary assigned with 57 words synonymous with good feelings. The negative sentiment is 10.74% with a dictionary assigned with 57 words synonymous with bad feelings.

Figure 7 : Sentiment Analysis (Positive - 89.26%, n=717) (analysis with Netlytic, Gruzd, A.,2022)
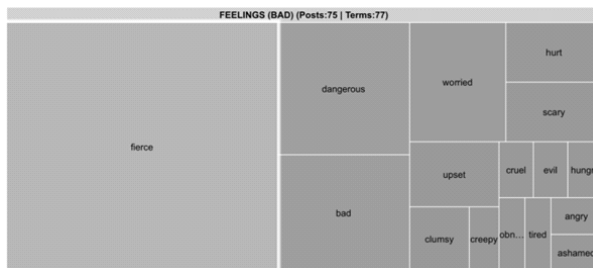
**Figure : Sentiment
Analysis (Negative - 10.74%, n=717)
(analysis with Netlytic, Gruzd, A. (2022)**

6. Conclusion

When news is created in traditional ways, the workflow of content go through human workers. Journalists, with their experience and abilities, present information to the audience. The speed of media creation and dissemination decides how soon it can be shared. What follows after the content creation is traditionally, scheduling and output, when the information life-cycle takes over the content, governs its acceptance, visibility or persistence. The automation of cognitive tasks is resulting in consolidating the gathering, processing and reporting of news. Automation of tools to fight misinformation continues to be a major thrust area. Apart from the countries where the institutional AI has presence, researchers in Spain, Cyprus, Turkey, South Korea and China have the greatest impact on the contemporary field of AI and journalism. The identified motor themes of "public" and "impact" are where the meaningful research can be conducted. The sentiment of the public implies that the adoption is merely a logistical challenge, as the public perception is positive.

References

1. Alattar, F., & Shaalan, K. (2021). Using Artificial Intelligence to Understand What Causes Sentiment Changes on Social Media. IEEE Access, 9, 61756–61767. https://doi.org/10.1109/ACCESS.2021.3073657

2. Bechmann, A., & Bowker, G. C. (2019). Unsupervised by any other name: Hidden layers of knowledge production in artificial intelligence on social media. Big Data and Society, 6(1). https://doi.org/10.1177/2053951718819569

3. Broussard, M., Diakopoulos, N., Guzman, A. L., Abebe, R., Dupagne, M., & Chuan, C. H. (2019). Artificial Intelligence and Journalism. Journalism and Mass Communication Quarterly, 96(3), 673–695. https://doi.org/10.1177/1077699019859901

4. Calvo Rubio, L. M., & Ufarte Ruiz, M. J. (2021). Artificial intelligence and journalism: Systematic review of scientific production in web of science and scopus (2008-2019). Communication and Society, 34(2), 159–176. https://doi.org/10.15581/003.34.2.159-176

5. Calvo-Rubio, L. M., & Ufarte-Ruiz, M. J. (2020). Perception of teachers, students, innovation managers and journalists about the use of artificial intelligence in journalism. Profesional de La Informacion, 29(1). https://doi.org/10.3145/epi.2020.ene.09

6. Chan-Olmsted, S. M. (2019). A Review of Artificial Intelligence Adoptions in the Media Industry. JMM International Journal on Media Management, 21(3–4), 193–215. https://doi.org/10.1080/14241277.2019.1695619

7. de-Lima-Santos, M.-F., & Salaverría, R. (2021). From Data Journalism to Artificial Intelligence: Challenges Faced by La Nación in Implementing Computer Vision in News Reporting. Palabra Clave, 24(3), 1–40. https://doi.org/10.5294/pacla.2021.24.3.7

8. Díaz-Noci, J. (2020). Artificial intelligence systems-aided news and copyright: Assessing legal implications for journalism practices. Future Internet, 12(5). https://doi.org/10.3390/FI12050085

9. Eckroth, J., Dong, L., Smith, R. G., & Buchanan, B. G. (2012). Newsfinder: Automating an AI News service. AI Magazine, 33(2), 43–54. https://doi.org/10.1609/aimag.v33i2.2406

10. Feng, Y., & Lv(U), X. (2022). Frontier Application and Development Trend of Artificial Intelligence in New Media in the AI Era. In Lecture Notes on Data Engineering and Communications Technologies (Vol. 97, pp. 58–64). https://doi.org/10.1007/978-3-030-89508-2_8

11. Galily, Y. (2018). Artificial intelligence and sports journalism: Is it a sweeping change? Technology in Society, 54, 47–51. https://doi.org/10.1016/j.techsoc.2018.03.001

12. Garvey, C., & Maskal, C. (2020). Sentiment Analysis of the News Media on Artificial Intelligence Does Not

Support Claims of Negative Bias Against Artificial Intelligence. OMICS A Journal of Integrative Biology, 24(5), 286–299. https://doi.org/10.1089/omi.2019.0078

13. Goksu, M., & Cavus, N. (2020). Fake news detection on social networks with artificial intelligence tools: Systematic literature review. In Advances in Intelligent Systems and Computing: Vol. 1095 AISC (pp. 47–53). https://doi.org/10.1007/978-3-030-35249-3_5

14. Hansen, E. B., & Bøgh, S. (2021). Artificial intelligence and internet of things in small and medium-sized enterprises: A survey. Journal of Manufacturing Systems, 58, 362–372. https://doi.org/10.1016/j.jmsy.2020.08.009

15. Hassan, A. (2021). The Usage of Artificial Intelligence in New Media. Lecture Notes in Networks and Systems, 239 LNNS, 229–240. https://doi.org/10.1007/978-3-030-77246-8_23

16. Nader, K., Toprac, P., Scott, S., & Baker, S. (2022). Public understanding of artificial intelligence through entertainment media. AI and Society. https://doi.org/10.1007/s00146-022-01427-w

17. Ouchchy, L., Coin, A., & Dubljević, V. (2020). AI in the headlines: the portrayal of the ethical issues of artificial intelligence in the media. AI and Society, 35(4), 927–936. https://doi.org/10.1007/s00146-020-00965-5

18. Owsley, C. S., & Greenwood, K. (2022). Awareness and perception of artificial intelligence operationalized integration in news media industry and society. Ai & Society. https://doi.org/10.1007/s00146-022-01386-2

19. Ozbay, F. A., & Alatas, B. (2020). Fake news detection within online social media using supervised artificial intelligence algorithms. Physica A: Statistical Mechanics and Its Applications, 540, 123174. https://doi.org/10.1016/j.physa.2019.123174

20. Parratt-Fernández, S., Mayoral-Sánchez, J., & Mera-Fernández, M. (2021). The application of artificial intelligence to journalism: An analysis of academic production. Profesional de La Informacion, 30(3).

21. Paschen, J. (2020). Investigating the emotional appeal of fake news using artificial intelligence and human contributions. Journal of Product and Brand Management, 29(2), 223–233. https://doi.org/10.1108/JPBM-12-2018-2179

22. Ruiz, M. J. U., Fieiras-Ceide, C., & Túñez-López, M. (2020). The teaching-learning of automated journalism in public institutions: Studies, feasibility proposals and future impact of artificial intelligence. Analisi, 62, 131–146. https://doi.org/10.5565/rev/analisi.3289

23. Ruiz, M. J. U., Rubio, L. M. C., & Verdú, F. J. M. (2021). The ethical challenges of journalism in the era of artificial intelligence. Estudios Sobre El Mensaje Periodistico, 27(2), 673–684. https://doi.org/10.5209/ESMP.69708

24. Sánchez, J. L. M., & Ruiz, M. J. U. (2020). Artificial intelligence and journalism: A tool to fight disinformation. Revista CIDOB d'Afers Internacionals, 124, 49–72. https://doi.org/10.24241/RCAI.2020.124.1.49

25. Shilton, K. (2018). Values and Ethics in Human-Computer Interaction. Foundations and Trends® in Human–Computer Interaction, 12(2), 107–171. https://doi.org/10.1561/1100000073

26. Stray, J. (2019). Making Artificial Intelligence Work for Investigative Journalism. Digital Journalism, 7(8), 1076–1097. https://doi.org/10.1080/21670811.2019.1630289

27. Túñez-López, J. M., Ceide, C. F., & Vaz-álvarez, M. (2021). Impact of artificial intelligence on journalism: Transformations in the company, products, contents and professional profile. Communication and Society, 34(1), 177–193. https://doi.org/10.15581/003.34.1.177-193

28. Wang, S. (2022). Research on the Application of Artificial Intelligence Technology in News Space's Production. Lecture Notes on Data Engineering and Communications Technologies, 129, 90–98. https://doi.org/10.1007/978-3-030-99616-1_13

29. Wang, X., & Zhu, F. (2022). The Application of Artificial Intelligence in AI News Anchor. Lecture Notes on Data Engineering and Communications Technologies, 102, 1093–1100. https://doi.org/10.1007/978-981-16-7466-2_121

30. Xu, Z., Xiang, D., & He, J. (2022). Data privacy protection in news crowdfunding in the era of artificial intelligence. Journal of Global Information Management, 30(7). https://doi.org/10.4018/JGIM.286760

31. Zhai, Y., Yan, J., Zhang, H., & Lu, W. (2020). Tracing the evolution of AI: conceptualization of artificial intelligence in mass media discourse. Information Discovery and Delivery, 48(3), 137–149. https://doi.org/10.1108/IDD-01-2020-0007

Conference Proceedings

1. Li, Y. (2019). Media development in the background of artificial intelligence. Proceedings - International Joint Conference on Information, Media, and Engineering, IJCIME 2019, 193–197. https://doi.org/10.1109/IJCIME49369.2019.00046

2. Gray, J. H., Reardon, E., & Kotler, J. A. (2017). Designing for parasocial relationships and learning: Linear video, interactive media, and artificial intelligence. IDC 2017 - Proceedings of the 2017 ACM Conference on Interaction Design and Children, 227–237. https://doi.org/10.1145/3078072.3079736

3. Gui, X., & Xu, Y. (2019). Research on the current situation of the application of artificial intelligence in media field and countermeasures. Proceedings - 2019 4th International Conference on Mechanical, Control and Computer Engineering, ICMCCE 2019, 435–438. https://doi.org/10.1109/ICMCCE48743.2019.00104

4. Guo, W., & Zhang, B. (2020). Research on Development Strategy of News App under the Background of Artificial Intelligence. IOP Conference Series: Materials Science and Engineering, 806(1). https://doi.org/10.1088/1757-899X/806/1/012031

5. Haj Bara, B. Al, Pokrovskaia, N. N., Ababkova, M. Y., Brusakova, I. A., & Korban, A. A. (2022). Artificial Intelligence for Advertising and Media: Machine Learning and Neural Networks. Proceedings of the 2022 Conference of Russian Young Researchers in Electrical and Electronic Engineering, ElConRus 2022, 8–11. https://doi.org/10.1109/elconrus54750.2022.9755590

6. Proceedings - 2021 International Symposium on Artificial Intelligence and its Application on Media, ISAIAM 2021. (2021). Proceedings - 2021 International Symposium on Artificial Intelligence and Its Application on Media, ISAIAM 2021. https://doi.org/10.1109/ISAIAM53259.2021

7. Song, G. (2022). Application of Artificial Intelligence in News Communication. Lecture Notes in Electrical Engineering, 791, 197–204. https://doi.org/10.1007/978-981-16-4258-6_25

8. Vadapalli, R., Syed, B., Prabhu, N., Srinivasan, B. V., & Varma, V. (2018). When science journalism meets artificial intelligence: An interactive demonstration. EMNLP 2018 - Conference on Empirical Methods in Natural Language Processing: System Demonstrations, Proceedings, 163–168. https://doi.org/10.18653/v1/d18-2028

9. Wang, Y. (2021). Research on the Application of AI Anchors in TV Media under the Background of Artificial Intelligence. ACM International Conference Proceeding Series, 1–4. https://doi.org/10.1145/3469213.3470671

10. Wang, Y. (2021). The Application of Artificial Intelligence in Chinese News Media. ACM International Conference Proceeding Series. https://doi.org/10.1145/3469213.3470699

Book References

1. Gikis, S. N. (2021). ARTIFICIAL INTELLIGENCE IN JOURNALISM Prospects, Challenges, and Problems. Advances in Research on Russian Business and Management, 2021, 91–97. https://portal.issn.org/resource/ISSN/2578-725X

2. Yengın, D. (2021). Robot Journalism as an Example of Artificial Intelligence in Communication Studies. Digital Future, 185–206, ISBN (Softcover): 9783631854884. https://www.worldcat.org /title/digital-future/oclc/1261878618

Website References

1. McCarthy, J., Minsky, M. L., & Rochester, N. (1956). The Dartmouth summer research project on artificial intelligence. Artificial Intelligence: Past, Present, and Future. Available at http://raysolomonoff.com/ dartmouth/boxa/dart564props.pdf

2. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. Systematic Reviews 2021;10:89 Available at http://prisma-statement.org/ Default.aspx

3. Harzing, A.W. (2007) Publish or Perish, available at https://harzing.com/resources/publish-or-perish

4. Gruzd, A. (2022). Netlytic: Software for Automated Text and Social Network Analysis. Available at http://Netlytic.org

5. Bastian M., Heymann S., Jacomy M. (2009). Gephi: an open source software for exploring and manipulating networks. International AAAI Conference on Weblogs and Social Media. Available at https://gephi.org

Sharing Information on Social Media: A Study on Media Students

*Yukti Dhadwal,
**Shubham Bhatia,

ABSTRACT

The use of social media has increased in the aftermath of the coronavirus Pandemic. The information-sharing behaviour and proliferation of content through various social media platforms have amplified. All types of updates, whether health or safety guidelines related to COVID-19 were circulated online. Facebook, Instagram, Twitter, and WhatsApp served as booming sources for the distribution of content. Users utilized social media networks as per their need for entertainment, information-sharing, and raising awareness. Besides the benefits, social media facilitated the spread of misinformation during the pandemic. It became difficult for people to determine the authenticity of the information shared via these networks.

The current study attempts to determine the use of social networking sites, information sharing, and the accuracy of content by media students. The study also aims to identify the perspectives of media students on misinformation spread through social media. A survey was conducted to gain a better understanding of their information-sharing practices. A mixed-method analysis was carried out to analyse the data.

According to the findings of this study, Instagram is the most preferred social platform for showing digital presence. Respondents share information across all popular social networking sites where they have a social profile. Media students use social media to share information to meet their needs. They actively share content on various social platforms, and the majority of them, about 73 per cent, stated that they check the source before sharing any information. According to the findings of this study, media students are active users who use social media efficiently to gratify their needs.

Keywords: Information sharing, Fake news, Media Students, Misinformation, Social Networking Sites, Media literacy

1. Introduction

Information sharing on social media among virtual communities has skyrocketed. Especially during the COVID-19 pandemic, information sharing has been unprecedented. The bulk of the information was shared on various social networking sites and simultaneously, fake news spread rose twofold. The circulation of fake information led fact-checkers and health advisors to work tirelessly to provide accurate information. (Chowdhury, n.d.) The unfiltered information spread like wildfire on various social networking sites like Facebook, Twitter, Instagram, etc. WhatsApp messenger was also used to spread misinformation related to coronavirus with a single click. The quick proliferation of misleading information on social platforms especially during the pandemic has the potential to cause detrimental negative effects. The misinformation and disinformation caused during the pandemic have laid emphasis on the credibility of health information shared on various social networking sites.

(Ajayi et al., n.d.)

Along with the pandemic, the 'infodemic' became a major cause of concern. It became really difficult for the people to depict the accuracy of the content. World Health Organization (WHO) cautioned that the proliferation of misinformation on social networking sites might become deadlier than the virus itself. (Ajayi et al., n.d.) Fake news consists of highly fabricated claims that are created to spread on social media. (Bago et al., 2020) It is used as a weapon to mislead people. People became a part of the chain to spread wrong information unknowingly.

Social media is being used as a crisis management tool to serve as a source providing information about the COVID-19 pandemic across the world. Technology has served as a way to stay connected in the pandemic times and it became easier to stay engaged by liking, posting, and sharing content on social media platforms like Facebook, Twitter, LinkedIn, etc. (Narula & Shiva, 2020) In

* Ph.D. Research Scholar, Kurukshetra University, Haryana
** Assistant Professor, SRM University, Andhra Pradesh

the wake of the novel coronavirus, the use of social media has brought along a fear of information consumption. Users are so engrossed in social media that there is relative ease among the users to share information, which often leads to sharing false information on their social networks. (Khan & Idris, 2019) Content can be relayed among users with no significant third-party filtering, or fact-checking. (Allcott & Gentzkow, 2017) Checking and re-checking information before sharing is most crucial at the present time. This research study is an attempt to know the perspectives of media students, who are budding journalists, on misinformation spread through social media. It will give a brief about how the budding journalists are using social media and their opinions related to information verification and information sharing.

2.   Review of Literature

In a study, Chris Jackson found that three out of every five U.S. adults have regularly observed fake news, and nearly half did believe a fake story before finding out it's fake. '(Jackson et al., 2018) In another study, it was found that maximum youth aged between 18-35 years faced psychological anxiety during lockdown due to COVID-19. As people were using social media platforms to gain information about COVID-19 which played a key role in spreading anxiety about the outbreak in Iraqi Kurdistan.(Ahmad & Murad, 2020)

Daniel Funke and Daniela Flamini's study focused on steps taken globally by various countries to fight against misinformation. A European Commission group published its final report, highlighting the steps taken against misinformation. India restricted Internet services on various occasions to prevent the spread of misinformation through social platforms. One of the states in India, West Bengal prepared a database of fake news stories distributed on social media over the past few years keeping the records of past offenders. (Funke & Flamini, n.d.) In a survey conducted in U.S. on COVID-19 pandemic resulted that more than 23 per cent people thought it was probably or definitely true that the Chinese had created the virus as a bio weapon. More than 21 per cent of participants thought taking vitamin C can probably or definitely prevent infection against coronavirus, and most of them used social media for the information related to COVID-19.(Rozansky, n.d.)

John Demuyakor(2021) carried out a study, the findings of which indicated that the utilization of social media has dramatically caused panic (COVID-19 pandemic) among the Ghanaian Migrant community. A study by David Sterrett et.al (2019) highlighted that the elite sharing a story has high impact on views of an article on social media in comparison to the effects of the news outlet reporting the story. Dr. M. Laeeq Khan's study showed that age, social class and gender did not play a huge part in recognizing misinformation, but media and information literacy was found to be the biggest factor.(Khan & Idris, 2019) The educated people are found susceptible to information that reinforces their worldview, in a study by Claire Wardle. She also highlighted the distinct types of misinformation and mistruths which have snowballed, amid the existing conspiracy theories about vaccinations or new technology. (Wardle, n.d.) Niranjan Sahoo '(n.d.), stated that the crisis of fake news is much more severe in India due to rapidly growing internet base i.e. 376 million people using all kinds of social media platforms. In another study, it was found that most females suffer from cyberchondria and males are majorly sharing news without checking the sources.—'(Laato et al., 2020)

2.1 Research questions

*   Which social media platforms were preferred for information sharing by media students during the COVID-19 pandemic?

*   Did media students verify information before sharing it?

*   Has social media been beneficial to spread of information during the COVID-19 pandemic?

3.   Methodology

Social media is being used as a crisis management tool globally. It has also served as a source for providing information about the COVID-19 pandemic across the world. The study aims to uncover information dissemination practises of media students. In the present research, a survey was done to get an insight on sharing information by media students who are aspiring journalists. The study employed an Exploratory research design. Purposive sampling technique was used in the study. An online survey was conducted for data collection. The selected sample consisted of university students in Lucknow. A total of 150 media students were sent the questionnaire through email, out of which 59 participated in the survey. The low response rate was due to the study being executed during the COVID-19 lockdown. Closed as well as open-ended questions were included. The data was analysed using both qualitative and quantitative methods.

3.1 Data analysis and interpretation

Percentage analysis and graphical representation using MS Excel were used as data analysis and presentation tools. Qualitative and quantitative data interpretation was carried out. According to the findings, 100 per cent of the respondents have a social profile on various web platforms. All 59 respondents answered 'yes' for having a profile on the social media platforms. Further, out of the most popular social platforms like Facebook, Instagram, Twitter, most of the respondents i.e. 59.6% have

maintained their profiles on Instagram and 49.1% admitted to having profiles on all other platforms. Of the total respondents, 24.6% and 17.5% students have maintained their profiles on Facebook and Twitter respectively. This indicates that Instagram is the most preferred social platform for media students, while Twitter profiles are the less preferred choice.
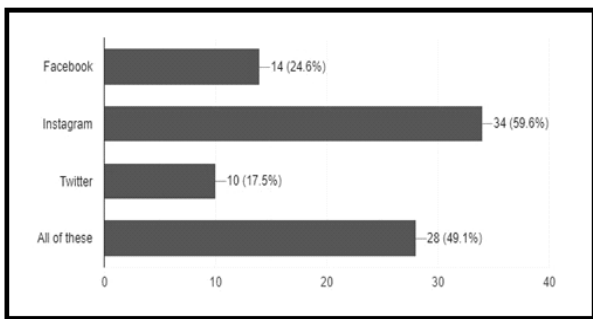
Figure 1: Social platforms preferred for maintaining a social profile

Most of the respondents use all the social platforms for sharing information i.e., Facebook, Instagram, Twitter and WhatsApp. Instagram and WhatsApp are mostly used for sharing information, while only one respondent used only Facebook for sharing content. This shows that Instagram is more preferred for information sharing and has active users in comparison to other social platforms.
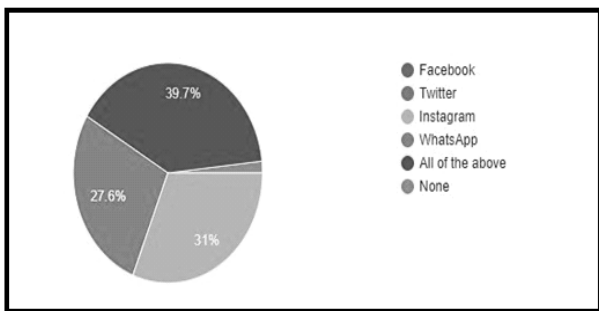
Figure 2: Social platform used for sharing information

When asked about the basis of sharing information, about 52.5% i.e., a majority of respondents said that they shared information to create awareness. Of the total respondents, 32.3% respondents showed social activeness by sharing content and 11.9% of the respondents said they shared information to follow trends. Thus, social media is used very efficiently by media students to share information for gratifying their varied purposes.

The respondents share information actively on various social platforms and most of them i.e., 72.9% answered that they check the source of information before sharing any information. Other respondents check the source only sometimes. This indicates that respondents are mostly
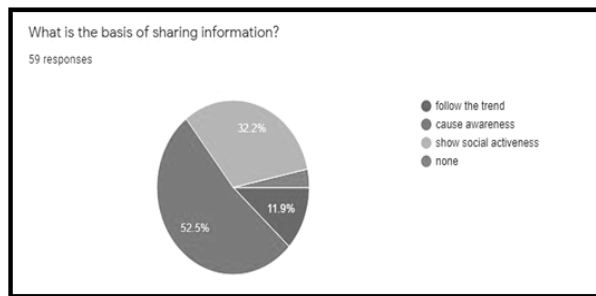
Figure 3: Basis of sharing information
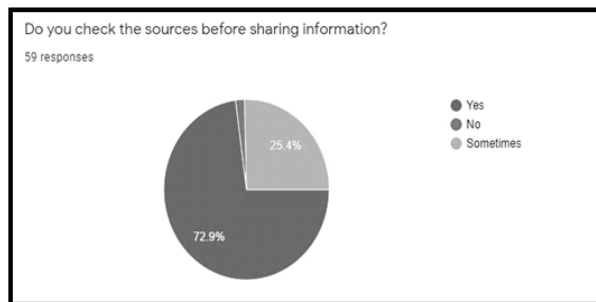
active and are using media efficiently by checking and re-checking information.

When asked about the reason for sharing information, most of the respondents conveyed that it is a healthy practice to use social media for spreading information as it creates awareness and helps reach out to many people. One of the respondents answered, 'Sharing means to share our ideas, thoughts and other such things. In today's world sharing is everything. Our learning experience increases by sharing or getting information on social media.' Another responded 'Sharing information about something that won't harm our society is good. It causes awareness and helps us to be updated.' Therefore, the respondents share information through social media and believe that social platforms are used to create awareness.

When asked about the ways to verify content before sharing, one respondent answered 'I always see facts, I listen both in favour and against the issue to determine what is right and then I will share that content.' Many of the respondents use Google search to check whether the specific piece of information is fake or not. There are a number of respondents who conveyed that verifying fake information is difficult so they avoid sharing content which is doubtful.

About 93.1% of the respondents answered that there should be some mitigating measures to prevent the spread of fake information. Many of them suggested blocking the bots, fake users, and reporting fake content as a way to shorten the chain of misinformation. One of the respondents said, 'First of all, before sharing you should be

clear about the information. It is better not to share at all than spread fake news.' Another answered, 'Rather than doing a mere Google search, delving in and exploring the information and then sharing it would prove useful.' A respondent suggested 'We can prevent misinformation from spreading as we can stop forwarding the message further from our side and discourage others as well to stop any further confusion.'

The respondents believed that emotion is involved in sharing of information. About 91.2% of respondents said 'yes' to the sharing of information based on emotions. People are emotionally driven towards the content and are so much engrossed in it that they cannot stop themselves from sharing it. Out of all respondents, 84.5% understand the term 'media literacy' and define it as an 'ability to identify different types of media and the messages they are sending.' A few of them responded, 'It means to have knowledge about media; 'Having an understanding of media and information; it's sharing via different means like, the Internet, newspapers, etc.;' which helps the researchers conclude that not all respondents are clear about the term as they gave generic description of media and seem un-familiar with the term 'media literacy.'

4. Results

The findings of this research study indicate that media students prefer Instagram the most for a virtual existence. They share information on all popular social networking sites, where they have maintained a social profile. But the most used social networking site is found to be Instagram. Social media is used very efficiently by media students to share information for gratifying their needs. The respondents are found sharing content actively on various social platforms and most of them i.e., 72.9% answered that they check the source of information before sharing any information. This concluded that the respondents are the most active social media users and are using media efficiently.

The reason for sharing information is that it is a healthy practice to use social media for spreading information as it causes awareness and helps to reach out to many people. The respondents' perspectives over fake news sharing convey that maximum information is shared by the people who do not check the source of information rather forward it without even reading. Majority of them check the source and rest ignore it. About 72% of the respondents are active users who make some efforts to prevent the spread of misinformation. The study highlights the presence of media students on various social media platforms and utilisation of these spaces for their benefit. The study found eagerness to share information among the media students. Thus, social media have become very beneficial to spread information and cause awareness during the COVID-19 pandemic.

5. Conclusion

Content is universal and at present consumption of unfiltered content is unrestricted. The easy and cheap reach or access of internet over social media platforms gives free hand to the massive information. The content available on the web is shared without verifying or cross-checking which often results in incidents like mob-lynching costing lives, community or religious/political group conflicts on fake or misleading photos, videos, or any textual piece of information. Millions of social media users are liking, consuming, and sharing large amount of information with every passing second. Media students who are also aspiring journalists make excellent use of social media to exchange information for a variety of purposes. Especially, amid pandemic social networking sites have significantly served to reach out to large masses instantly. This study highlights the use of social media and sharing of information by media students and suggests that there is a significant need to make students aware of various tools to check credibility of information and become media literate.

References

1. Ahmad, A. R., & Murad, H. R. (2020). The impact of social media on panic during the COVID-19 pandemic in iraqi kurdistan: Online questionnaire study. Journal of Medical Internet Research, 22(5), 111. https://doi.org/10.2196/19556.

2. Ajayi, K., Kesiena, O., Uwak, I., Tomaszewski, L., Ph, D., Nuzhath, T., Ph, D., Okeke, U., Odonkor, G., & Ph, D. (n.d.). A mixed-method analysis of Facebook posts on the COVID-19 pandemic . A mixed-method analysis of Facebook posts on the COVID-19. 02.

3. Allcott, H., & Gentzkow, M. (2017). Social Media and Fake News in the 2016 Election. 31(2), 211236.

4. Bago, B., Rand, D. G., & Pennycook, G. (2020). Fake news, fast and slow: Deliberation reduces belief in false (but not true) news headlines. Journal of Experimental Psychology: General, 149(8), 16081613. https://doi.org/10.1037/xge0000729

5. Chowdhury, A. (n.d.). Fake News In The Time Of Coronavirus: A BOOM Study. https://www.boomlive.in/fact-file/fake-news-in-the-time-of-coronavirus-a-boom-study-8008

6. Demuyakor, J. (2021). Social Media and COVID-19 Pandemic: Enhancing Panic or Preventing It? Social Media and COVID-19 Pandemic: Enhancing Panic or Preventing It? January. https://doi.org/10.20469/ijhss.6.20005-5

7. Funke, D., & Flamini, D. (n.d.). A guide to anti-misinformation actions around the world. https://www.poynter.org/ifcn/anti-misinformation-actions/

8. Jackson, C., President, V., & Affairs, I. P. (2018). Fake News , Filter Bubbles , and Post-Truth Are Other People s Problems 77 % of Americans Think Other People Live in Their Own Internet. 15.

9. Khan, M. L., & Idris, I. K. (2019). Recognise misinformation and verify before sharing: a reasoned action and information literacy perspective. Behaviour and Information Technology, 38(12), 11941212. https://doi.org/10.1080/0144929X.2019.1578828

10. Laato, S., Najmul Islam, A. K. M., Islam, M. N., & Whelan, E. (2020). Why do People Share Misinformation during the COVID-19 Pandemic? ArXiv, 120.

11. Narula, S., & Shiva, A. (2020). Editorial Pandemic and Role of Media. Journal of Content, Community and Communication, 12, 13. https://doi.org/10.31620/JCCC.12.20/01

12. Rozansky, M. (n.d.). Conservative and social media usage associated with misinformation about COVID-

19. https://www.eurekalert.org/pub_releases/2020-04/appc-cas042420.php

13. Sahoo, N. (n.d.). How fake news is complicating Indias war against COVID-19. https://www.orfonline.org/expert-speak/how-fake-news-complicating-india-war-against-covid19-66052/

14. Sterrett, D., Malato, D., Benz, J., Kantor, L., Tompson, T., Rosenstiel, T., Sonderman, J., & Loker, K. (2019). Who Shared It?: Deciding What News to Trust on Social Media. Digital Journalism, 7(6), 783801. https://doi.org/10.1080/21670811.2019.1623702

15. Wardle, C. (n.d.). Tracking the infodemic: Charting six months of coronavirus misinformation. https://firstdraftnews.org/latest/tracking-the-infodemic-charting-six-months-of-coronavirus-misinformation/

Child Security Monitoring System Based on Internet of Things

*Dr. C. K. Gomathy

ABSTRACT

In our daily life, we can see various news stories on televisions about the cases of missing or abusing of children in many places of every country. The main objective of these children tracking devices is to decrease the crime rate among children abuse cases and increase safety to the children in some troubled and accidental situations. The main reason is their parents take their children to some crowded places or new unknown places because of more people the children can't follow their parents and lost in midway and began to panic and go near some bad people. Some delay in search of the missing children in time leads to accident or death. If we can give tracking device to children, we can track their position in time and save them.

Keywords: Internet of Things (IoT), Global Positioning system (GPS), Pulse sensor, IoT Childcare

1. Introduction

At present, these type of tracking devices are widely used in cars, ships, flights and phones like GPS or location. But there are also some apps and devices for children safety in current market made for them. Some tracking devices are attached with play toys or wearable bands in wrist or some pendant attached with the tracker for monitor their position in phone so we can search for them in time to avoid accidents in time. (C.K. Gomathy 2010). Some companies also used to develop this kind of tracking device in some toys and bands to track position. It also reduces manpower in searching and cost effective. It decreases the crime rate of child abuse or missing children cases.

1. RFID-based System for School going Children for Transportation Safety was introduced a new system to monitor pick-up/drop-off of school children to improve the safety of children during daily transportation from and to school (Akash Moodbidri, Hamid Shahnasser). The system consists of two main school and bus unit. The bus unit system is mainly used to store the children boarding or leaving data in the system. This information is communicated to the school unit that data about the children in the bus are boarding or leaving the bus and issues an alert message accordingly to authorized personnel.

   A complete prototype of this unique system was successfully finished and tested to validate the system functionality. The results show that the system is working well in all places and all most all devices have no problem in many places in maintaining the system.

2. Design and Development of an IOT based wearable device for the Safety and Security of women and girl children is a boon. The reason is to achieve the body signals on psychological problems and import data about signals that are galvanic skin resistance and body temperature. Body position is determined by maintaining the raw accelerometer data from a triple axis accelerometer.

3. Child Safety Wearable Device Parents don't have to carry the phone to the respective places. Set of keywords are used to gain information from the kit. LOCATION keyword is used to get the position of the child and UV keyword also is used to obtain the location of temperature of the surroundings. BUZZ keyword is used to turn over the buzzer in which it is already fixed in that device. It will send some distress SOS signal to the nearby devices for help.

2. Existing System

Real-Time Child Abuse and Reporting System is the already existing system, in which we use some voice recognition module in which can give the alert signal to the device. The GSM has a SIM which is used to send an alert message or an alert call to the trusted peoples. GPS is used to track the live location and it is used when needed. The server will search the respective device ID from the database and search from the list of contact information according to that device ID and provide the data to the mentioned relatives or parents to find the current position of their child in case of emergency or missing in some abandoned places. It is cost effective, reduce manpower, low operation cost, increase productivity and improve safety. The main disadvantage is the signal jamming,

*Assistant Professor, Department of Computer Science and Engineering, Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kanchipuram, Tamilnadu.

power dependency, privacy issues and problem of using these devices in places without internet or signal.
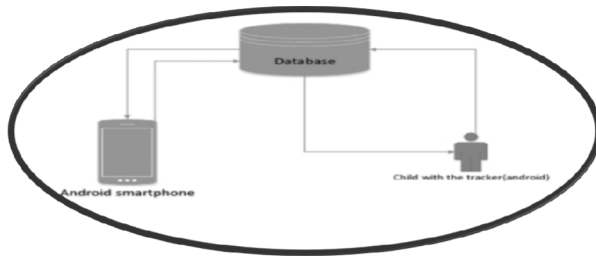
Fig 1: Child tracker using Android

In this above diagram we can see the Smartphone is connected to the database which stores the information about the trackers and the trackers have been attached to the database. The database acts or serves as the medium in connection.

3. Proposed System

In the existing system there are many disturbances will occur but for the proposed system. We can add some feature and reduce these disturbances in functions.
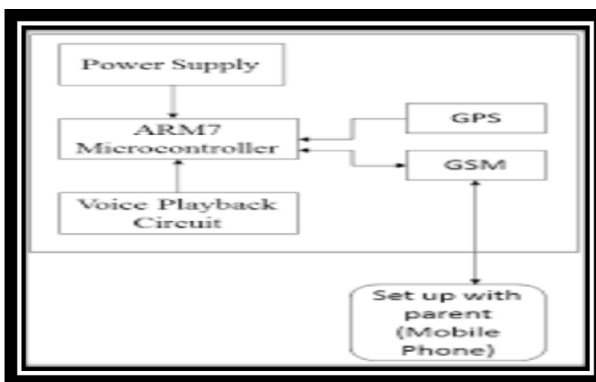
Fig 2: Child tracker using IoT

If the particular child exits the set limit beyond the respective range of the fixed area of the device it will immediately give the alert message to the parents or guardians using GSM. In our system mentioned above, we use several components like GPS, GSM that is connected to the ARM7 microcontroller with voice playback circuit is set up in the parents mobile phone for tracking the location or position of their children where about it must be attached with the power supply for continuous tracking it also shown in the above figure block diagram.

4. Design and Development

The proposed system used in these devices particularly consists of the Raspberry Pi microprocessor in that all other sensors, GPS and GSM are also integrated. The users are required to login by using their personal ID that is used for identification and verification. The devices that are designed for wearable to children are also provided to the selective children for monitoring them regularly. [4] We will feed the boundary range while writing the code used for the system and we can also control it using GPS from that device which is also called Geo Fencing. These data are stored in the server for processing.
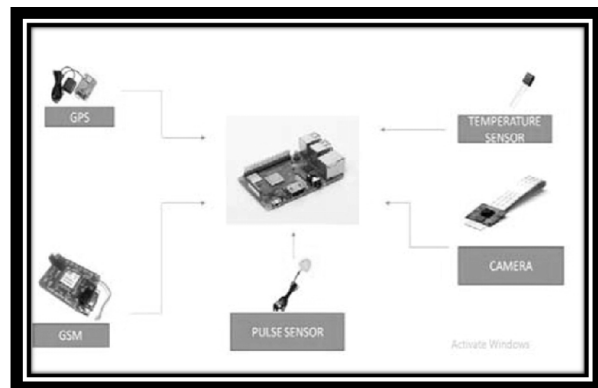
Fig 3: Child tracking devices

If the device moves from the fixed location to the out of that surrounding radius. The server automatically transfers an alert call by activating the GSM to the user. The live location of the device will be updated in the server, and it displays in the website every movement in every place. The server sides are used by coding with the written PHP and the controller sides coding with the written Python. The user will get the alert message using the login ID and password to check the live location of the tracker through GPS, which is already downloaded in the app. When giving the surrounding range for the school unit, we can also maintain regular attendance by updating the entry and exit of the child of the entire school in the application provided.[3] We have to feed the necessary threshold values for sensors like temperature and pulse in which, so that the device exceeds those necessary values or if the device gets abnormal temperature changes in values all immediately updated in the server. The server will automatically compare the values with the coded limited values, if they rise above the limited value, it generates an alert message through GSM.[5] The alert messages are sent by the application to the specific customers or users connected with the server in the form of SMS and the users will be able to login to the application to check the current status and updated information about the changes. After receiving the alert messages, if the user wants to directly see the specific location and image of the child, they are required to provide necessary details like IP address of that camera for the first time before syncing and can be able to watch the live streaming videos which are updated to the server in natural basis so that we can also use it at needed

time in all places when necessary it also supports the user for making the search effective by adding the details of the exact location of the place. It also maintains the history of the previous records for verification.

5. Results & Conclusion

In the result we can seen the many helpful system of IoT based children safety devices using temperature detection, boarding buses and leaving data, web camera and the Raspberry qi microprocessor in working of this devices in many places and also seen the result of some devices helpful in keeping the children secure and safe in important places like schools and some other unknown places in which can be used by all we can develop this kind of devices widely for the future safety of children. Children are the future generation of our country, and their safety is important to the prospect and development of the country. The Children safety devices are helpful for the safety of children although it has privacy issues in tracking it is important to protect our children using these IoT based children tracking devices and these devices are important for parents who love their children most to provide safety and avoid accidents to their children.

References

1. Kamalraj, R. (2015).'A Hybrid Model on Child Security and Activities Monitoring System using IoT"IEEE Xplore Compliant Part Number: CFP18N67-ART; ISBN:978-1-5386-2456-2.

2. RFID-based System for School Children Transportation Safety Enhancement ", Proceedings of the 8th IEEE GCC Conference and Exhibition, Muscat, Oman, 1-4 February 2015.

3. Biradar, K. & Jamge, S.B. "An Innovative Monitoring Application for Child Safety", DOI:10.15680/IJIRSET.2015.0409093.

4. Punjabi, S. K. & Chaure, S. "Smart Intelligent System for Women and Child Security" Department of Computer Engineering SIES Graduate School of Technology Nerul, Navi Mumbai, India. Sarifah Putri Raflesia, Firdaus.

5. Gomathy, C. K. (2018). "A Web Based Platform Comparison by an Exploratory Experiment Searching for Emergent Platform Properties", IAETSD Journal for Advanced Research In Applied Sciences, Volume 5, Issue 3, P. No-213-220, ISSN NO: 2394-8442, Mar/2018.

6. Gomathy, C. K. (2018). A Scheme of ADHOC Communication using Mobile Device Networks, International Journal of Emerging technologies and Innovative Research (JETIR) Volume 5 | Issue 11 | ISSN: 2349-5162, P. No:320-326, Nov-2018.

Dissemination of Nationalist Thoughts Through Indian Press: An Analysis of Southern Newspapers During Freedom Struggle

*Ashwatha Narayana S. L.
**Mohammed Zafar Iqbal

ABSTRACT

Nationalism unites the people with a feeling of oneness without geographical boundaries which has been proven at the time of the freedom struggle. Journalists, reformers, and freedom fighters recognized the strength of written words and used different media to cultivate the feelings of nationalism. Along with Anglo-Indians and Europeans, many Indians also started newspapers in different vernacular languages along with English. These newspapers were intended to arouse political consciousness to inculcate nationalism and expose colonial rule to preach disloyalty to the masses by opposing the unjust and harmful policies of the government. But it was filled with difficulties in terms of illiteracy, colonial pressure and repression. The restrictions in terms of mainly targeted the vernacular press and other language newspapers edited by Indians.

By the time of independence in 1947, the Indian population was around 345 million (Srinivasan 2004), with a literacy rate averaging around 18 per cent (Rao 2002). There were 214 newspapers, including 44 English newspapers published in India (Shrivastava 2008), and there were six All India Radio (AIR) stations and no television network (All India Radio 2006). The Indian print media, which had played a significant role in the freedom movement, has since then multiplied by 1.00,000 registered newspapers (Registrar of Newspapers for India 2018), and according to National Readership Survey-2019, Indian newspapers and magazines are being read by 91.52 lakh readers.

In this background, the present study explores the significance of the South Indian vernacular press during the Indian freedom struggle as a general objective. The specific objectives are to examine the role of the Indian press in raising the consciousness of nationalism during the freedom struggle, to find out different south Indian newspapers during British rule, to analyse the role of the South Indian vernacular press in attaining freedom. The research uses a qualitative research method based on secondary data from official reports, books, and various media sources. The document analysis will be used as a research tool. In 2022, we are celebrating 75 years of Indian Independence (Azhadi Ka Amrit Mahotsav). Thus, the present study analyses the role and contribution of the South Indian vernacular press in the freedom struggle.

Keywords: Nationalism, Indian Press, Southern, Vernacular Newspapers, Freedom Struggle

1. Introduction

"The pen is mightier than the sword" is a metonymic adage, created by English author Edward Bulwer-Lytton in 1839.

The press is as old as the human race itself, human beings' instinctive curiosity to know about what is happening around is the basis for the press. The writing on the walls and on stones dating back to several centuries before Christ were the first signs of the origin of the press in India.

Emperor Ashoka's edicts renounced violence after the Kalinga war on stone. Later, paper and writing materials were invented, and state records in the form of messages from spies were maintained in a rudimentary form. Later manuscripts worked as important sources of news in India. (E-gyankosh).

In common parlance, press means 'printing press'. But in journalistic and mass communication terminology, 'press' means print media - newspapers, journals, magazines,

* Research Scholar, Department of Electronic Media, Bangalore University.
**Research Scholar, Department of Electronic Media, Bangalore University.

periodicals, pamphlets, leaflets, books, handbills, documents, etc. A newspaper means "any printed periodical work containing public news or comment on public news". It gives not only facts but also the interpretation of facts and statements of opinions through editorials, news analysis, and a number of other ways. Hence, a newspaper, on the one hand, is a medium of information and on the other hand, it serves as means of reflecting public opinion and of molding public opinion. It is a vehicle of expression, education, and enlightenment. (E-gyankosh).

During the early nineteenth century, Indians were influenced by the press, and they started publishing newspapers, magazines, and journals in vernacular languages as well. It was the beginning of the Indian Press. During this time widely circulated newspapers were Samachar Darpan, Bangadarshan, Jnanodaya, Sudhovani, Vichar Lahiri, The Bombay Herald, The Madras Courier, etc. The main purpose of the press was the propagation of education, people's opinion, training and social issues. (Hussain, N., 2017)

To make Indians be informed about the cruelties of the British empire, the Indian media especially print media had been the backbone of all mass movements or popular upsurges of freedom struggle. The evolution of the Indian press was fraught with developmental difficulties, illiteracy, colonial constraints, and repression (Anwar, S., 2018). It disseminated the ideas of freedom and became a prominent tool for the freedom struggle. 'The Bengal Gazette or Calcutta General Advertiser' started by James Augustus Hickey in 1780 was the first newspaper launched in India. In major cities such as Calcutta, Madras, Bombay, and Delhi newspapers were published, and English was the only language used in the press initially. In 1818 The first newspaper published in the Indian language was the Samachar Darpan (Bengali), Bombay Samachar, the first Gujarati language newspaper was launched around 1822. The first Hindi language newspaper 'Samachar Sudha Varshan' came into existence around 1854. Then onwards more vernacular newspapers and magazines were launched in different regional languages like Malayalam, Marathi, Kannada, Tamil, Urdu, Telugu, etc., It is believed that political leaders, reformers, and underground resistance groups produced numerous newspapers and magazines following the Indian Rebellion of 1857. They spread their opinions through pamphlets, printed books, journals, and newsletters.

The press came out with some criticism of the administration. Therefore, the press ordinances, stringent regulations for the editors and heavy penalties and fines were prescribed for infringement. The East India Company staff was prohibited from having any relations with the newspapers. While political writings were forbidden,

social and religious news, particularly those by missionaries, was encouraged. However, things changed when William Bentick became the Governor-General of India. He and Raja Ram Mohan Roy were instrumental in improving the social climate in the country and a somewhat liberal attitude was meted out to the press by the authorities. The press was allowed a measure of freedom. In 1835 when Charles Metcalf became the Governor-General, he relaxed several restrictions previously imposed on the press.

Some of the Press Legislations were imposed on the Indian Vernacular Press during British rule.

1.1 Press Legislations

Censor Act 1799: Lord Wellesley passed this Act for newspapers, mentioning the names of the printers, editors and proprietors. Before printing any matter in newspapers, magazines or journals should be submitted to the Secretary of Censorship. The Act was abolished in 1818 by Warren Hastings.

Licensing regulation Act 1823. It was another restriction on Indian newspapers by John Adam. The printers and publishers had to obtain a license to start the press. Regulations put restrictions on editors getting a license from the government. All the rights of the issue and revoking the license were restricted to Governor-General. The regulation was against the vernacular languages. The newspaper, Mirat-ul-Akhbar of Rajaram Mohan Roy was affected mostly and ultimately stopped its circulation (Thiago., 1938-85). This Act was abolished by Charles Metcalf.

Press Act of 1835: In 1835, Charles Metcalfe repealed the rude Act of 1823 and gained the title of "liberator of the Indian Press' (Heena Naqvi. P.65)

The Licensing Act, 1857. During the Revolt of 1857, the government imposed once again restrictions on the press. The printers and publishers had to receive the license and the Governor was the chief authority to revoke or issue a new license.

The Registration Act, 1867: The Act was the regulation of printing of newspapers and books but did not put restrictions on the press. In this Act, the publisher had to mention the name of the printer and publisher along with the name of the publication placed on the book. After one month of publication, a free copy of the book had to supply to the local government.

Vernacular Press Act of 1878: When Vernacular newspapers criticized the British rule in India. Therefore, Lord Lytton passed the Vernacular Press Act in 1878. The Magistrates were empowered to ask any publisher of a newspaper circulated in Indian languages to give assurance of not publishing anything against British Rule

(Heena Naqvi. P.65). The security guarantee was fixed for them. The defaulter would be punished and fined. This law was not applicable to English Press. Lord Ripon repealed this Act in 1882 (The economic weekly-347).

Newspaper Act of 1908: In this act, the magistrate was empowered to confiscate the property of the press if they published objectionable material in their newspapers, journals and magazines.

Indian Press Act, 1910: This Act empowered the local government to get security at registration from the printer, and publisher and deregister if it found the offender. The printer or publisher had to submit two copies of each issue to the local government free of cost. Bal Gangadhar Tilak the leader of extremist nationalism was tried and deported to Mandalay for six years on charges of sedition. His trail led to countrywide protests. Textile and railway workers took on the Army on streets and roads and went on strike for days.

Indian Press Act, 1931: This Act gave full power to provincial governments to suppress propaganda for Civil Disobedience Movement (The economic weekly348).

Despite the above press curtail measures of the British, the efforts of the South Indian vernacular press through various languages like Kannada, Tamil, Telugu, Malayalam, etc. to reach the masses was remarkable.

2. Review of Literature

A. S. Iyengar, 2001., in his book titled 'Role of the Press and Indian Freedom Struggle: All through the Gandhian Era'., mentioned that the most important personality of vernacular journalism was Raja Rammohan Roy, who published the first Indian language newspaper in Bengali and Persian. Miratool Akbar attacked the stronghold of reactionary Pundits who interpreted Hindu law and he was also against the Serampur missionaries of British who were constantly preaching against Hindu values and beliefs. The involvement of the British in the socio-religious practices of Indians was one of the reasons for the Indian mutiny-1857. The editorial and news coverage of the vernacular press leaned towards Indian social problems and often attacked the oppression and injustices of British rule.

A. S. Iyengar, 2001., in his book titled 'Role of the Press and Indian Freedom Struggle: All through the Gandhian Era'., mentioned that from the end of the 19th century to the beginning of the 20th century, there was a struggle between nationalism and Freedom the press. Throughout the Colonial period, media in India was neatly divided into the English and Vernacular press reflecting the division of Indian society into the modern- that's western and traditional that's Indian. It was the Vernacular press that led to the freedom struggle; while the English press continued to cater to the western educated readers who isolated themselves from the Indian social mainstream. It was Mahatma Gandhi that turned upside down the Indian social fabric by adopting the Indian way of life not only in food and dress but also in values and thinking. His journalism was probably the most influential in mobilizing all social and ethnic groups in India and arousing young and old, men and women against British domination.

3. Scope of the Study

Many Indians started newspapers in different vernacular languages along with English. which were intended to arouse political consciousness to inculcate nationalism and expose colonial rule to preach disloyalty to the masses by opposing the unjust and harmful policies of the government. but they are filled with difficulties like illiteracy, colonial pressure, and repression, etc. Still, the vernacular press was able to fight back with strong, determined, passionate journalists and freedom fighters. In 2022, we are celebrating 75 years of Indian Independence (Azhadi Ki Amrit Mahotsav), So, the present study would cast light on South Indian newspapers' contribution to the freedom struggle and it suggested to the policymakers and public for understanding and cherish the noble role of South Indian vernacular press during the Indian Freedom struggle.

4. Statement of the Problem

In this background, the present study focused on the Role of the Indian Vernacular Press in attaining Independence during Freedom Struggle. Hence, the researcher sought the answer to the following question "how did South Indian Vernacular Press play a key role in attaining Indian Independence from 1857?"

5. Objectives

The general objective of the research paper is to know 'Dissemination of Nationalism Thoughts through Southern Newspapers and its role in attaining Indian Independence.' The specific objectives are:

1. To examine the role of the Indian press in raising the consciousness of nationalism during the freedom struggle.

2. To find out different south Indian newspapers during British rule.

3. To analyze the role of the Southern vernacular press in attaining freedom.

6. Methodology

The study used a qualitative research approach. Under the qualitative approach, the observation research method is used for 1st objective and content analysis is used for the remaining objectives. Content analysis is the study of documents and communication artifacts, which might be

texts of various formats, pictures, audio, or video. The research paper considers the South Indian vernacular press from 1857 because after 1857 vernacular press is spurring in India with the support of the educated middle class. The study considers the press from Kannada, Telugu, Tamil, and Malayalam during Freedom Struggle and the research operationalized Vernacular Press to these South Indian state languages.

7. Research Findings

7.1 The role of print media in raising the consciousness of nationalism during the freedom struggle:

The national movements that emerged after 1857 mainly focused more on political propaganda and education, formation and propagation of nationalist ideology and arousing, training, mobilization and consolidation of public opinion. For this purpose, the press proved a crucial tool in the hands of the nationalists. The distinguished and fearless journalists of the time brought many newspapers. These included Sambad Kaumadi and Mirat-ul-Akbar by Raja Rammohan Roy, The Hindu and Swadeshimitran under G. Subramanya Aiyer, The Bengalee under Surendranath Banerjea, Voice of India and Rast Goftar by Dadabhai Naoroji, Amrit Bazar Patrika under Sisir Kumar Ghosh and Motilal Ghosh, Indian Mirror under N. N. Sen, Kesari and Mahratta by Balganghar Tilak, Sudharak under Gopala Krishna Gokhale, Prabhudha Bharat and Udbodhava by Swami Vivekanand, Som Prakash under Ishwar Chandra Vidyanagar, Mooknayak by Dr. B.R. Ambedkar, Young India and Nav Jeevan under Mahatma Gandhi, etc.

These newspapers were not established as profit-making business ventures but were seen as rendering national and public service. In fact, these newspapers had a wide reach, and they stimulated a library movement. Their impact was not limited to cities and towns; these newspapers reached remote villages. Where important news items and editorials would be read and discussed thoroughly in local libraries. In this way, they gave not only political education but also mobilized for political participation.

The British government on its part had enacted many strident laws, such as section 124A of IPC which provided punishment for creating disaffection against the colonial govt, then Vernacular Press Act (1878) to repress seditious writing and Surendranath Bennergea, Tilak many Indians arrested under this act, then 'newspapers (incitement to offenses) act, 1908' aimed at against extremist nationalists activity and confiscation of property power given to District Magistrate, so many other laws also brought by British to curb the press. Freedom of the Press in national movements and British suppression went hand in hand during the freedom struggle.

7.2 Different south Indian newspapers and analysis of the role of the South Indian press in attaining freedom

7.2.1. Kannada

The Kannada press was controlled by the repressive measure from the beginning by state administration and they had to face the wrath of British rulers outside for espousing the cause of freedom and solidarity with forces of nationalism. Kannada press started with Mangalore Samachara by Herman Moegling in 1843 aimed at propagating Christianity. Other important newspapers which played a key role in raising nationalism feelings are Mysore Vrittanta Bodhini(1859) edited by Bhasyam Tirumalacharya, Mysore Gazette (1866), and L. Rickett its first editor. Suryodaya Prakashika (1888) by Narasinga Rao was the 1st Kannada daily.

The father of Kannada Journalism M. Venkatachalaiah brought out his weekly, Vrittanta Chintamani (1885), his writings were marked by simplicity and directness and he fought the government with his pen, and he started many educational institutions. He made a donation to the University of Mysore to be used to give prizes to the best students in Journalism. Journalists M Gopala Iyenger and M. Srinivasa Iyengar were trained under M. Venkatachalaiah.

Between 1880 to 1908 many Kannada newspapers appeared like Kannada Kesari(1888), Vokkaliga Patrika (1907), Arthasadhaka Patrika(1914), etc. Many Women Journalists also entered the freedom movement during this period e.g. Thirumalamma (Karnataka Nandini,1916 Mysore).

The Mysore government enacted the Mysore newspaper regulation act-1908, under which permission from the government had to be obtained before publishing a newspaper. The press acts were modified during the regime of Dewan Sir. M. Visvesvaraya. After many newspapers came up like Samachara Sangraha and Sumati by D V Gundappa, Jaya Karnataka by Aluru Venkataraya, Dhanurdhari by Hardekar Manjappa, Tainadu(1926) by P R Ramaiah and so on.

Many national leaders like B.G. Tilak and M.K. Gandhi had a greater influence on newspapers like Samyukta Karnataka and Karmaveera and they were significant during civil disobedience and Quit India movements in Kalyana Karnataka (HK) and North Karnataka especially Hubli and Dharwad region.

7.2.2 Telugu

Madras was the seat of the bulk of the Telugu Journalistic activity for a long time. 1st Telugu journal was Satyadoota (1835) started for missionary purposes. Other newspapers which were aimed at raising nationalism feelings like

Varthamana Tarangini (1842) by Syed Rahmatullah, Andhra Bhasha Sanjeevani (1871) by Kokkanda Venkataratnam Panthulu, Purushartha Pradayini(1872) by Siva Rao, Andhra Prakashika (1885) under A Parthasarathy Naidu, Krishna Patrika (1902) by Konda Venkatappayya. Gautami (1908) by Sripada Krishnamurthy Shastri etc.

In 1844 Gazulu Lakhmananrasu Chetty, a Telugu Merchant launched 'The Crescent' a newspaper to defend the rights and the privileges of the Hindu. It fought for the abolition of commercial, concessions granted to the East India Company (A. Theerthagiri & Dr. A. Thennarasu., 2021).

However, the first newspaper in Telugu, published in Hyderabad, was 'Golconda', the newspaper was launched in 1926 by Suravaram Pratap Reddy. Andhra Kesari and Deshabhimani newspapers are also popular at this time. K. Nageshwara Rao a famous Telugu Journalist and he started Andhra Patrika. Kalluri Subbarao was also a known journalist of the time. Ramnath Goenka started Andhra Prabha from Madras in 1938. They mainly focused on filling nationalistic feelings in the minds of the people by criticizing British policies and suppressing freedom of the press and they also cast light on Famine, Poverty, and other social issues.

7.2.3 Tamil

The Religions Trust Society under S.A. Humphreys published the 'Indian Herald' on April 2, 1795, at Fort St. George, Madras and he had accused the government for the first time. And it also published the first Tamil monthly magazine, Tamil Patrika (1813) which enjoyed the support of the government (A. Theerthagiri & Dr. A. Thennarasu., 2021).

In the beginning, the Madras Times (1860) and the Madras Mail (1867) was started with the object of criticizing the economic exploitation and social discrimination of Indians. The first Tamil newspapers providing hard news and writing on politics such as Salem Desabhimani (1878) and Coimbatore Kalanidhi in 1880 both started by Salem Pagadala Narasimhalu Naidu. (S. Muthiah., 2017)

The G. D. Subramanyam Iyer's 'Swadesh Mitran' (1882) was one of the first well-recognized Tamil newspapers published in India. Which had the largest and the most widespread circulation of any Tamil publication of Madras Presidency during British rule. It had a maximum circulation in other countries also such as Burma, Ceylon, Penang, Singapore, the federated Malay States, Sumatra, Borneo, Cochin, China, and South and East Africa. It was read in the villages and in the cities by landlords, merchants, officials, and students. But the newspaper was mainly aimed at the aristocrats and its general policy was based on progressive western lines.

It was only for the popularity of the 'Swadesamitran', that its editor was invited to attend the imperial durbar held at Delhi by the imperial majesties King George and Queen Mary in 1911. He was the only one to represent a vernacular publication in this presidency.

The largest advertisers in England and America also preferred the Swadesh Mitran as a medium for advertisements. Subramania Iyer's later contribution 'Mitran' became the most successful Tamil daily well into Independence. 'Mitran' not only decorates the drawing-rooms of the rich and the palaces of the zamindars, but it also is seen in the hands of Sanga Boyan and Rama Boyan as well as of women of all shades.

Kudi Arasu of E.V.Ramaswamy Naiker and Dinamani of T.S. Chokkalingam were also important Tamil newspapers during Swadeshi, Non-cooperation, and Civil Disobedience movements.

7.2.4 Malayalam

A number of freedom fighters in Kerala were also journalists and writers. they emitted the sparks of nationalism and fight for freedom through their words. The founder-editor of Mathrubhumi daily, K P Keshava Menon was an active member of INC. During the second world war, his activities were based in Malaya. He was a minister in the Azad Hind Government. He spent several years as a prisoner in Japan as well.

K Kelappan, known as 'Kerala Gandhi', had served as an editor of 'Mathrubhumi' and 'Samadarsi' newspapers. 'Kerala Patrika' was the first newspaper from Malabar. its editor Chenkulath Kunjiraman Menon was a freedom fighter as well. Keralasanchari'. Muhammad Abdul Rahman, one of the most popular freedom fighters from the state, was the editor of the newspaper 'Al Ameen'.

K Ramakrishna Pillai, through his paper 'Swadeshabhimani' sharply criticized the Travancore government. he was the first to write biographies of Mahatma Gandhi and Karl Marx in Malayalam.

K C Mamman Mappila, the editor of 'Malayala Manorama', was a frontline fighter, he was jailed for a few years and his newspaper, and its assets were confiscated.

8. Conclusion

Nationalism unites the people with oneness feeling without geographical boundaries which have proven at the time of the freedom struggle. Journalists, reformers, and freedom fighters recognized the strength of the written word and used different media to raise the essence of nationalism. The results of the study show that vernacular newspapers along with English had intended to arouse political consciousness to inculcate nationalism and expose colonial rule to preach disloyalty to the masses by opposing the unjust and harmful policies of the

government. But it faced many difficulties in the form of illiteracy, colonial pressure, and repression.

Ropar Lethbridge opined about the impact of vernacular press that is 'If a single copy reaches a village, its content soon become known to nearly every man residing in the neighborhood". In attaining freedom vernacular press is significant including South Indian language newspapers and their editors. They raised consciousness against colonialism, gathering people, open meetings, mass movements, and agitations in support of Indian Independence.

References

1. Hussain, N. (2017). Role of Vernacular Press during British rule in India. International Education & Research Journal, eissn, (2454-9916), 231-233.

2. Ahir R. (2019), 'A Brief History of Modern India' Spectrum, 548-562.

3. Yogeesh A. (2016), 'History of Kannada Journalism- A Study' 'Global Journal for Research Analysis' 383

4. Ganesan, A. (1988). The Press in Tamil Nadu and the Struggle for Freedom, 1917-1937. Mittal Publications.

5. Venkatraman, V. (2019). Women liberation: Reflections of Indian press on Women in Dravidian and Leftist movements in Tamilnadu, 1928-1947. available at ssrn 3449481.

6. Somasekhara, G. (2018). Telugu Press and Indian Freedom movement. LuLu. com.

7. A.Ganesh, The Press in Tamil Nadu and The Madras, 1974, p.64.

8. Struggle for Freedom 1917-1937. Delhi: Mittal Publication, 1988, pp. 1-4

9. A. A. Nair. Peep at the Press in South India. Madras: 1966, p.10.

10. Mohan Ram. Tamil Press and the Colonial Rule. Madurai: Prism Books, 2003, p.4.

11. Nadig Krishnamurthy, Indian Journalism. Mysore:Parasuranga Publication, 1996, p.128

12. S. Muthiah. Madras Rediscovered. Madras: East West Book Pvt. Ltd., 1999, p.49.

13. A.S. Iyengar, Role of Press and Indian Freedom Struggle, A.P.H. Publishing Corporation, New Delhi 02,

14. Rangasamy Partha Sarathi, Journalism in India, Sterling Publishers Private Ltd., New Delhi, P.215.

15. Suadesamitran 24th June 1905, 22n July 1905, Native News Paper Report, Government.

Development of Social Media Dependency Scale

*Neha Bhushan

ABSTRACT

An individual's condition of using social media platforms all the time to exist in day-to-day life can be referred to as Social Media Dependency. When an individual uses social media more than usual for different purposes and it becomes his/her habit, it can be categorized as dependency on social media. Based on the review of available literature, the researcher identified the five dimensions of social media dependency. These dimensions are dependency for information, dependency for self-expression, dependency for entertainment, neglecting social life and work, and lack of control. This study attempts to develop a scale that can measure the dependency of an individual on social media. The study aims to develop a self-assessment reliable and valid social media dependency scale. Initially, 30 items were constructed based on the above-mentioned five dimensions. These were shared with three experts to rate them on a five-point scale to determine the face validity of the items. The final scale has 25 items; it is a five-point psychometric scale. The scale has been assessed using test-retest reliability by administering the scale twice on a sample of 100 subjects with a time gap of one month. The coefficient of correlation was found to be .95, indicating high reliability of the scale. To ascertain concurrent validity, the scale was validated against Pathological Internet Use Scale (PIUS) and Social Media Addiction Scale Student Form (SMAS-SF); the high value of the coefficient of correlation r=.79 and .82 with SMAS-F, clearly indicates that it is a valid scale to measure social media dependency. The test was administered on a sample size of 560 social media users for the purpose of its standardization. z-score has been calculated, and on the basis of its value, norms have been formed.

Keywords: Dependency, Information, Social Media, Social Media Dependency, Social Media Dependency Scale, Psychometric Scale

1. Introduction

Social media is a popular media among all age groups. People of different age groups are using various platforms of social media. From connecting and communicating with family and friends to sharing information with a larger audience, expressing oneself through posts and tweets, gathering news and information, and enjoying posts of others, everything is possible through social media. Social Media sites are designed so that the sharing of information and the expansion of networks can be encouraged.

User-generated content of social media applications like Facebook, Whatsapp, Twitter and YouTube is highly influential in purchasing/selling behaviors, entrepreneurship, and political issues to venture capitalism'. (Greenwood and Gopal, 2015)

Social Media Dependency refers to an individual's condition of using social media platforms all the time to exist or operate in day-to-day life. The habit of using social media more than usual for different purposes can be categorized as dependency on social media.

Oberst, U.; Wegmann, E.; et. al, in their study stated that feeling depressed seems to trigger higher SNS involvement in adolescent girls as compared to anxiety which triggers higher SNS involvement among adolescent boys. According to Akyazı and Tutgun-Ünal (2013), today's dominant culture is participatory and manifests itself best through online social networks.

Excessive use of social media may have some serious risks associated with it, among them online bullying, losing contact with real-life people or friends, and social media addiction. This might result in physical, cognitive, and emotional problems. The studies conducted by Andreassen et al. (2013); Griffiths et al. (2014), suggest that social networking is one of the essential activities for a few users to the extent that they use social media. They even lose a sense of time and self which adversely affects their daily functioning.

* Research Scholar, Himachal Pradesh University, Summer Hill, Shimla, Himanchal Pradesh.

Experts have developed various scales to measure social media addiction among its users. In this study, the researcher has attempted to develop a standardized scale that can measure an individual's social media dependency in day-to-day life. It is not always the addiction that may negatively impact physical, psychological, and mental health. However, too much dependency on the medium may also negatively impact and later lead to addiction.

1.1 Social Media Dependency

Cambridge dictionary defines dependency as the situation in which an individual needs something all the time, especially to continue existing or operating (cambridge.org). Social Media Dependency refers to an individual's situation on social media platforms all the time to continue existing or operating. A habit of using social media several times a day cannot be categorized as an addiction.

In the research article "A theory of social media dependence" (2015) by C. Wang, M.K.O. Lee, and Z. Hua, the researchers seek to clarify the development of psychological dependence in social media. According to the article, habit induces dependence by distorting individuals' cognition and affect. Deficient self-regulation has a positive influence on social media dependence.

Using Dr. Young's Internet Addiction Test in 2016, a research study found that those determined to have an internet addiction had significantly more trouble dealing with their day-to-day activities.

When individuals use social media more than usual, it cannot always be categorized as an addiction. The habit firstly turns into dependency for the medium, then addiction. This is the primary reason that this scale tries to measure an individual's dependency on social media; if this dependency is way too much, it can be considered an addiction.

1.2 Objective of the Study

The study aims to develop a self-assess valid and reliable social media dependency scale.

2. Review of Previous Scales

2.1 Social Media Addiction Scales

Social Media Addiction Scale Student Form (SMAS-SF), developed by Cengiz Şahin, is a 5-point Likert-type scale consisting of 29 items grouped under four factors (virtual tolerance, virtual communication, virtual problem, and virtual information). The scale is valid and reliable enough to determine the social media addictions of secondary school, high school, and university students. Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett's scale test were significant, respectively, at .96 and $\square2=12680.88$ (p=.00). The internal consistency coefficient (Cronbach's alpha coefficient) was found to be .93 for the whole scale

and at values ranging from .81 to .86 for the sub-factors. Test-retest coefficient was found .94.

The Social Network Addiction Scale was developed Ibrahim Gokdas and Yasar Kuzucu. This scale had 10 items and three-factor structure in both groups. The total variance explained was 71.51% for adolescents and 70.96% for young adults. The scale's total Cronbach Alpha reliability coefficient was .87 for adolescents and .84 for young adults. With the 1st and 2nd level Confirmatory Factor Analysis performed on a similar study group, a good model was revealed for adolescents and young adults.

The Bergen Facebook Addiction Scale (BFAS), initially a pool of 18 items, three reflecting each of the six core elements of addiction (salience, mood modification, tolerance, withdrawal, conflict, and relapse), was constructed and administered to 423 students together with several other standardized self-report scales.

M.G. Shahnawaz and Usama Rehman (2020) assess social networking addiction by developing a theoretically and psychometrically sound tool for measuring Social Networking Addiction Scale, following the component model given by Griffiths (2005) highlights the importance of dimensions in addictions. The scale is situated nicely between problematic internet and Facebook addictions as it shared 53% of the variance with the former and 25% with the latter. The scale can be used in two ways depending on the research/practice.

The item within the six addiction elements with the highest corrected item-total correlation was retained in the final scale. The factor structure of the scale was good (RMSEA = .046, CFI = .99) and coefficient alpha was .83. The 3-week test-retest reliability coefficient was .82.

The Bergen Social Media Addiction Scale (BSMAS) is a six-item self-report scale. It is a brief and effective psychometric instrument for assessing at-risk social media addiction on the Internet. It is adapted from the Bergen Facebook Addiction Scale (Andreassen etal., 2012).

Several social media addictions and social networking scales have been developed; no social media dependency scale has been developed in the Indian context yet. So this study will be able to fill the gap in the present body of knowledge. The Social Media Dependency scale may be administered on all age groups above 12 years of age. It can be administered individually or in a group.

3. Scale Development Process

3.1 Scale Development & Item Generation

Based on the literature review and already developed social media addiction scales, the researcher has developed statements related to social media use. The generated statements are intended to cover social media

use as per the different characteristics of various social media platforms and the different ways individuals rely on them.

Items have been generated related to the dependency for information which indicates that the respondent is most likely to be dependent on social media for any news or information he or she may require in day-to-day life. The information can be related to friends and family, work, purchase of new products, and positive or negative reviews on products. Items related to dependency for self-expression indicate that the users are most likely to be dependent on social media for expressing themselves in online social groups. The users engage themselves on social media platforms by clicking the like and share icons for every post they may have received, posting the content, and checking for the likes or comments on the pictures or posts gives them immense pleasure. 'Dependency for Entertainment' suggests that users may choose social media to get entertained rather than any other medium like television or reading a book.

Users tend to neglect social life and work and prefer to be on social media more than working or meeting with real-life friends. This suggests that sometimes social media is being used to get rid of work-related problems.

Lack of Control is also a sign of dependency on social media, which indicates that the user has trouble managing his or her time spent on social media and frequently stays active longer than intended.

Initially, there were 30 items constructed in the questionnaire, and later, for the face validity of the items, the questionnaire was shared with three experts to rate them on a five-point scale. Based on their expert opinion, 5 items were dropped from the final form. The final form has 25 items. The responses are to be obtained in a five-point Likert type format, i.e., Never, Seldom, Often, and Always.

This study identifies five dimensions of social media dependency-

1. Dependency for Information

2. Dependency for Self-Expression

3. Dependency for Entertainment

4. Neglect of Social Life and Work

5. Lack of Control

3.2 Data Collection & Respondents

The prepared questionnaire having all the final items was shared through Google forms with 100 subjects. After one month of receiving the responses from the subjects, the same questionnaire was shared once again with the same sample. In this way, the scale has been assessed using test-retest reliability by administering the scale twice on a sample of 100 subjects with a time gap of one month. The concurrent validity of the test was established by comparing the scores with the scores on the Pathological Internet Use Scale (PIUS) and Social Media Addiction Scale Student Form (SMAS-SF). In the second phase, when the scale's reliability and validity were established, the test was standardized on a sample size of 560 social media users.

4. Results

Coefficient of test-retest reliability has been calculated. Concurrent validity of the test has been examined with the help of two other available tests. Norms of the test have been formed with the help of values of z-scores.

Serial numbers of the items related to each dimension of Social Media Dependency is given in table 1.

4.1 Reliability of the Scale

Test-retest reliability of the scale was established by administering the scale twice on a sample of 100 subjects with a time gap of one month. The coefficient of correlation was found .95, indicating high reliability of the scale.

4.2 Validity of the Scale

The opinion of three experts determines the face validity of the scale. It is very high. To ascertain the concurrent validity of the scale, the score obtained on this scale (SMDS) were correlated with those on the Pathological Internet Use

Table 1: Item numbers included in each dimension of the scale

Dimension	Serial no. of items	Total number of items	Minimum Score	Maximum Score
Dependency for Information	1,2,13,4,5	5	0	20
Dependency for Self-Expression	16,7,8,22,10	5	0	20
Dependency for Entertainment	24,12,3,14	4	0	16
Neglect Social Life and Work	15,6,17,18,19,20	6	0	24
Lack of Control	21,9,23,11,25	5	0	20
Overall		25	0	100

Scale (PIUS) by Dr. Madhu Asthana and Dr. Kiran Bala Verma (2019) and Social Media Addiction Scale Student Form (SMAS-SF) developed by Cengiz Şahin (2018). Value of coefficient of correlation (r=.79) between PIUS and SMDS. These measures reveal the high validity of the present scale, which is also supported by the value of high correlation (r=.82) between SMAS-SF and SMDS measures. This clearly indicates a valid scale to measure social media dependency.

4.3 Norms

The scale has been administered to 560 social media users. Based on their responses following norms have been established:

Table 2: Norms (Dependency Level)

Dependency Level	Scores
Negligent Dependency	0-20
Moderate Dependency	21-37
Normal Dependency	38-60
Mild Dependency	61-77
Severe Dependency	78 & above

5. Conclusion

Social Media Dependency Scale measures the dependency of users on social media. It may be used for research purposes on the general population. It consists of 25 items on a 5-point Likert scale and measures five dimensions of dependency, namely dependency for Information, Dependency for Self-Expression, Dependency for Entertainment, Neglect of Social Life and Work, and Lack of Control. This scale can be administered to all age groups above 12 years, individually or in a group.

Test-retest reliability of the scale was established by administering the scale twice on a sample of 100 subjects with a time gap of one month. The coefficient of correlation was found to be .95, indicating high reliability of the scale.

The opinion of three experts determines face validity of the scale. It is very high. The concurrent validity of the scale was obtained by comparing it with Pathological Internet Use Scale (PIUS) by Dr. Madhu Asthana and Dr. Kiran Bala Verma. (2019) (r=.79) and Social Media Addiction Scale Student Form (SMAS-SF) developed by Cengiz Şahin (2018) (r=.82). It can be concluded that this scale is a reliable, valid, and standardized measure of the social media dependency of an individual.

References

1. Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook Addiction Scale. Psychological Reports, 110(2), 501–517. https://doi.org/10.2466/02.09.18.PR0.110.2.501-517

2. Bhushan, N. (2021) Social Media Dependency Scale (SMDS) Manual. Prasad Psycho Corporation.

3. Gokdas,I., Kuzucu, Y. (2019). Social Network Addiction Scale: The Validity and Reliability Study of Adolescent and Adult Form. International Journal of Assessment Tools in Education, 6(3), 396–414.

4. Garg, R., Smith, M.D., & Telang, R. (2011). Measuring information diffusion in an online community. Journal of Management Information Systems.28(2).

5. Mental Health Finland. (2021, May 23). Addiction Problems. https://mieli.fi/en/home/mental-health/mental-disorders/addiction-problems

6. Oberst, U., Wegmann, E., Stodt, B., Brand, M., & Chamarro, A. (2017). Negative consequences from heavy social networking in adolescents: The mediating role of fear of missing out. Journal of Adolescence. 55, 51–60. https://doi.org/10.1016/j.adolescence.2016.12.008

7. Şahin, C. (2018). Social Media Addiction Scale - Student Form: The Reliability and Validity Study. The Turkish Online Journal of Educational Technology, 17(1). http://www.tojet.net/articles/v17i1/17117.pdf

8. Shahnawaz, M., & Rehman, U. (2020). Social Networking Addiction Scale. Cogent Psychology, 7(1), 1832032. DOI: 10.1080/23311908.2020.1832032

9. Tang, T., & Mahoney, L. M. (2019). Social Media Dependency Scale. In Graham, E. E., & Mazer. J. P. (Eds.), Communication Research Measures III: A Sourcebook (edition.1, pp 5). Routledge.

10. Wang, C., Lee, M. K. O., & Hua, Z. (2015). A theory of social media dependence: Evidence from microblog users. Decision Support Systems, 69, 40/doi.org/10.1016/j.dss.2014.11.002

Role of COVID- 19 Pandemic in the Adoption of E-Learning

*Anwesha Sen Majumdar
**Dr. Sushil Kumar Rai

ABSTRACT

During the COVID-19 pandemic, educational institutions were forced to adopt e-learning systems which became the main challenge for educators and students alike. Due to the sudden closure of universities and schools, e-learning platforms and tools were seen to be the ideal equipment for learning delivery. Studies showed that e-learning spiked during the lockdown with popular e-learning platforms like Coursera, Udemy, and Byjus offering courses to students and professionals alike for their growth and development. Universities and colleges too started online MOOC programs, workshops, and faculty development programs. However, while these transformational changes in the education industry were sweeping, it was not without their share of problems. This article attempts to elicit relevant evidence on e-learning and its challenges in the era of the COVID-19 pandemic.

Keywords: E-learning, E-learning Platforms, COVID-19, Pandemic, Education, India, Educational Institutions

1. Introduction

The unexpected and unprecedented pandemic of COVID-19 led to the sudden closure of schools and universities all over the world. Overnight students of all ages were left in limbo regarding their education. However, since the situation was extraordinary, schools and colleges started adopting e-learning tools and platforms. Even though e-learning was already being used by many people worldwide, COVID-19 forced nearly everyone to adopt this alternate method of teaching and learning. Educational institutions employed and bought e-learning services and tools like Google Classroom, Microsoft Teams etc. and teachers who forever had been teaching face to face were seen undertaking online classes.

E-learning platforms like Coursera, Byjus's etc. also saw an uptake in their user bases in many of their courses as students and even young professionals felt that they could and needed to hone their skills in this competitive world All over the world, we saw people undertaking workshops and online classes in various capacity. And in India, this user base gave rise to unicorns like Vedantu and Byju's who capitalized and captured huge market shares during this period.

Since education is vital for one's growth professionally and intellectually, older professionals who need to keep up with transformational industry changes in many sectors may see e-learning as a proactive method to upgrade oneself. COVID-19 pandemic and subsequently its lockdown has shown to all that one need not stop learning and can still imbibe knowledge through e-learning. With many parts of the world still facing issues with lockdowns and cases rising in many places, e-learning or 'blended learning is here to stay. This study, therefore, discusses how COVID-19 impacted education, the role it played in the adoption of e-learning, challenges faced mostly by students while using an e-learning tool or platform and the future it holds for the academic industry as a whole.

1.1 E-learning: Definition and meaning

Choudhury & Pattnaik (2020) have defined E-learning as the "Transfer of information and skills via electronic media such as the Internet, Intranets, and Extranets in a well-designed course content with credible accreditations". E-learning is a web-based framework that employs digital technology and other instructional materials to provide learners with a customized, student-centered, accessible, and interactive learning experience that supports and enhances learning processes (Rodrigues et al., 2018). E-learning, according to Vershitskaya et al., (2020) has also been described as a crucial instrument for meeting the demand for highly skilled specialists in today's technology-driven world.

*Research Scholar, School of Media and Communication Design, IMS Unison University, Dehradun, Uttarakhand.
**Associate Professor, School of Media and Communication Design, IMS Unison University, Dehradun, Uttarakhand.

2. Review of Literature

2.1 Role of COVID-19 pandemic and its impact

Not only in developing nations but all around the world, the unpredicted and unforeseen

COVID-19 pandemic has and has continued to wreak havoc on economies and countries destabilizing human society (Bacher-Hicks et al., 2020; Flores & Gago, 2020; Johnson et al., 2020; Raaper & Brown, 2020; Wargadinata et al., 2020). Even countries like China are seeing a resurgence in Covid cases leading to strict lockdowns. While the contagion has adversely affected every country, most developing countries were severely dented due to a lack of coping machinery such as health facilities, infrastructure, and technology (Blundell et al., 2020; Jaegera & Blaabk, 2020). COVID-19) was initially detected in Wuhan, the capital of Central China's Hubei province (Huang et al., 2020; Roache et al., 2020; Sahu, 2020; Sandars et al., 2020; Tesar, 2020). The infection then spread quickly putting billions of people on edge and killing over 100,000 individuals. The coronavirus epidemic has since been labeled a pandemic by the World Health Organization (WHO). Governments in many countries then proceed to proclaim it an emergency(lockdown) in their respective countries.

The COVID-19 protocol was used by the countries' authorities to respond to the pandemic and manage its spread. Under national lockdown, they included the decision to use restrictive measures to discourage social gatherings and foster social separation (Pham & Ho, 2020). Most social and economic activities were suspended, shutting down gyms, museums, movie theatres, swimming pools, and educational institutions, all to combat this unseen predicament (Sahu, 2020). The progressive spread of COVID-19, according to Liguori and Winkler (2020), created a huge challenge to the educational landscape, as schools were compelled to close and seek alternative methods of teaching.

The situation was similar in India as well. With the filing of cases across India, the government had imposed four consecutive lockdowns spanning 61 days, beginning on March 25, 2020. As of 2022, there will be no lockdowns, however, mask requirements will stay the same. However, during that time, India's undergraduate and postgraduate programs were primarily taught in semesters. Most programs were in the middle of the semester when lockdown began, thus the last semester was finished in a hasty, unstructured manner utilizing a variety of internet tactics, primarily e-mail and WhatsApp.

2.2 Effect of COVID-19 on Education

Physical access to classrooms has been restricted due to the long-term use of lockdown. Because of the COVID-19 pandemic, approximately 1.5 billion school-aged and university students have been affected all over the world (IAU, 2020). Studies by Arajo, de Lima, Cidade, Nobre, & Neto (2020) found that the closing of educational institutes disproportionately affected children and young children. According to UNESCO (2020), the closing of colleges and schools had negative implications for students, including interrupted learning and a lack of opportunity for students and youth to grow and develop. As a result, with easy access to these technologies and fast internet connections, online digital learning systems can address this issue.

People's lives have been drastically altered as a result of technological advancements and the internet, as well as significant changes in a variety of professions (Nadikattu, 2020). According to Felix (2020), lectures were delivered using apps and tools like WeChat, audio-visual movies shared via e-mail, and various online teaching tools such as Voov, Zoom, Superstar, G-suite Cloud Meeting, and others. During this unusual period, online courses were found to be in high demand as an alternative to institutional closure. Nonetheless, both students and instructors encounter several hurdles and difficulties, including psychological issues, as a result of an ineffective learning technique (Bao 2020, Alam 2020).

The e-learning business has undergone unexpected developments as a result of the lockdown. According to Kapasia et al (2020), the majority of students utilized their phones and laptops to attend courses and lectures. COVID-19 has a significant positive influence on learning efficiency and performance by implementing online learning methodologies (Gonzalez et al, 2020). Despite the problems that indicate that students are less likely to profit from this sort of education (Lizcano et al. 2020), e-learning is the best choice available to ensure that diseases do not spread. During the COVID-19 epidemic, instructor and student characteristics are critical for using and accepting e-learning technology (Hasnan Baber, 2021).

Online platforms such as Vedantu, Unacademy, and Byju's have been providing free access to live classrooms to let students learn from the comfort of their own homes, and these educational apps have seen a huge increase in pupils. Online platform educators had begun to attend more live classes (Owusu-Fordjour et al., 2020).

While COVID-19 has caused many challenges for the higher education sector, it has also been acknowledged that this epidemic has created opportunities. New ideas and tools for online learning and capacity development are among the possibilities. For example, as a result of COVID-19, universities that previously implemented traditional teaching methods were forced into the digital world (Ratten, 2020). This means that universities must come up with new ways to deliver instruction without forgoing quality (Ratten, 2020). New issues linked with online teaching and learning will also provide opportunities for creative thinking and solutions within the

sector (Bryson & Andres, 2020).

It has been suggested that online teaching and learning will help students and teachers improve their online communication and interpersonal skills by exposing them to online platforms regularly (Beech & Anseel, 2020). The COVID-19 outbreak also provided an opportunity for fresh study in a new region, as well as increased usage of digital data collection methods and greater exposure to the virtual distribution of research findings. This supplied researchers and academics with fresh digital experiences that they needed to improve their capacity (Gardner, 2020; Shahzad et al., 2020; Zhu & Liu 2020). As a result, not everything with COVID-19 is negative; yet, the obstacles and problems vastly outnumber the potential.

3. Discussion

There have been reports of students experiencing sadness and anxiety, as well as bad internet connectivity and/or an unfavorable study environment at home. During the epidemic, students from rural areas and underserved communities faced significant problems. For impoverished and disenfranchised pupils, the online medium of teaching and learning is frequently biased. Hearing-impaired students faced complications with online learning, according to the findings by Manzoor (2020). In the case of e-learning, accessibility difficulties were also a concern (Aboagye et al., 2020). This was especially apparent during the Coronavirus lockdown when many families and students were reported to be unable to access online classrooms or information.

It was discovered that students were unprepared for an entirely online experience, and those societal difficulties and instructor issues had an impact on students' inclination to study online (Zhao et al, 2021). Students' socioeconomic situation, technological competency, logistic constraints, lack of technical support, and communication all interrupted online learning during COVID-19, according to an earlier study (Abuhammad, 2020). The impact of COVID-19 on kids' academic performance has received little study attention. This is owing to a lack of data from the COVID-19 period that analyses academic outcomes. However, when more academic results become available, it is predicted that additional studies will be undertaken in this new and emerging field. Gonzalez et al. (2020) looked at how students performed academically before and after being confined to COVID-19. The results of the research demonstrated that students improved their scores significantly even in assessments that were previously administered in an online manner (Gonzalez et al., 2020).

4. Conclusion

COVID- 19 had a huge impact on the education sector.

These changes were something that no one could predict. However, it showed that e-learning could be a way moving forward especially when covid still remains a concern in many places in India and in many countries. China itself is still battling COVID with students accessing education online. Even the Ukraine crisis has thrown the education of many Indian students to a standstill. Few of the colleges are now teaching them online. While e-learning has its demerits, it cannot be denied it has become a solution for many who cannot go to colleges and schools due to myriad of reasons. Afterall learning is a continuous process and students and educators will find a way to continue this process. E-learning during COVID-19 just proved that.

References

1. Aboagye, E., Yawson, J. A., & Appiah, K. N. (2021). COVID-19 and E-learning: The challenges of students in tertiary institutions. Social Education Research, 1-8.

2. Abuhammad, S. (2020). Barriers to distance learning during the COVID-19 outbreak: A qualitative review from parents' perspective. Heliyon, 6(11), e05482. https://doi.org/10.1016/j.heliyon.2020.e05482

3. Alam A. Challenges and possibilities of online education during COVID-19. Preprints. 2020; doi: 10.20944/preprints 202006.0013.v1

4. Araújo, F. J. d. O., de Lima, L. S. A., Cidade, P. I. M., Nobre, C. B., & Neto, M. L. R.

5. Assunção Flores, Maria, and Marília Gago. "Teacher education in times of COVID-19 pandemic in Portugal: national, institutional and pedagogical responses." Journal of Education for Teaching (2020): 1-10.

6. Baber, H. (2021). Modelling the acceptance of e-learning during the pandemic of COVID-19-A study of South Korea. The International Journal of Management Education, 19(2), 100503.

7. Bacher-Hicks, Andrew, Joshua Goodman, and Christine Mulhern. Inequality in household adaptation to schooling shocks: Covid-induced online learning engagement in real time. No. w27555. National Bureau of Economic Research, 2020.

8. Bao W. COVID-19 and online teaching in higher education: A case study of Peking University. Human Behavior and Emerging Technologies. 2020;2(2):113–115

9. Beech, N., & Anseel, F. (2020). COVID‐19 and its impact on management research and education:

Threats, opportunities and a manifesto. British Journal of Management, 31(3), 447.

10. Blundell, Richard, Monica Costa Dias, Robert Joyce, and Xiaowei Xu. "COVID‑19 and Inequalities." Fiscal Studies 41, no. 2 (2020): 291-319.

11. Bryson, J. R., & Andres, L. (2020). COVID-19 and rapid adoption and improvisation of online teaching: curating resources for extensive versus intensive online learning experiences. Journal of Geography in Higher Education, 44(4), 608-623.

12. Choudhury, S., & Pattnaik, S. (2020). Emerging themes in e-learning: A review from the stakeholders' perspective. Computers & Education, 144, 103657.

13. Felix, A. (2020). Awareness of Students towards E-Learning in Education. Purakala with ISSN0971-2143 is an UGC CARE Journal, 31(15), 620-626.

14. Gardner, Lee. "COVID-19 has forced higher ed to pivot to online learning. Here are 7 takeaways so far." The Chronicle of Higher Education 20 (2020)

15. Gonzalez, T., de la Rubia, M. A., Hincz, K. P., Comas-Lopez, M., Subirats, L., Fort, S., & Sacha, G. M. (2020). Influence of COVID-19 confinement in student's performance in higher education. arXiv preprint arXiv:2004.09545.

16. González-Sanguino, C., Ausín, B., Castellanos, M. Á., Saiz, J., López-Gómez, A., Ugidos, C., & Muñoz, M. (2020). Mental health consequences during the initial stage of the 2020 Coronavirus pandemic (COVID-19) in Spain. Brain, behavior, and immunity, 87, 172-176.

17. Huang, R. H., D. J. Liu, A. Tlili, J. F. Yang, and H. H. Wang. "Handbook on facilitating flexible learning during educational disruption: The Chinese experience in maintaining undisrupted learning in COVID-19 Outbreak." Beijing: Smart Learning Institute of Beijing Normal University (2020).

18. IAU. (2020). COVID-19: Higher Education challenges and responses. Retrieved July 06, 2020, from https://www.iau-aiu.net/COVID-19-Higher-Education-challenges-and-responses.

19. Jæger MM, Blaabæk EH. Inequality in learning opportunities during COVID-19: Evidence from library takeout. Res Soc Stratif Mobil. 2020 Aug;68:100524. doi: 10.1016/j.rssm.2020.100524. Epub 2020 Jun 18. PMID: 32834345; PMCID: PMC7301805.

20. Johnson, Nicole, George Veletsianos, and Jeff Seaman. "US Faculty and Administrators' Experiences and Approaches in the Early Weeks of the COVID-19 Pandemic." Online Learning 24, no. 2 (2020): 6-21.

21. Kapasia N., Paul P., Roy A., Saha J., Zaveri A., Mallick R.…Chouhan P. Impact of lockdown on learning status of undergraduate and postgraduate students during COVID-19 pandemic in West Bengal India. Children and Youth Services Review. 2020;116:105194. doi: 10.1016/j.childyouth.2020.105194.

22. Liguori, Eric, and Christoph Winkler. "From Offline to Online: Challenges and Opportunities for Entrepreneurship Education Following the COVID-19 Pandemic." (2020): 2515127420916738.

23. Lizcano, D., Lara, J. A., White, B., et al. (2020). Blockchain-based approach to create a model of trust in open and ubiquitous higher education. Journal of Computing in Higher Education, 32, 109–134. https://doi.org/10.1007/s12528-019-09209-y.

24. Manzoor, A. (2020). Online Teaching and Challenges of COVID-19 for Inclusion of Persons with Disabilities in Higher Education

25. Nantwi, William Kwabena, and Barfo Boateng. "COVID-19 And Education in Ghana: A Tale Of Chaos And Calm." African Journal of Emerging Issues 2, no. 5 (2020): 41-52.

26. Owusu-Fordjour, C., Koomson, C. K., & Hanson, D. (2020). The impact of COVID-19 on learning-the perspective of the Ghanaian student. European Journal of Education Studies.

27. Raaper, Rille, and Chris Brown. "The COVID-19 pandemic and the dissolution of the university campus: Implications for student support practice." Journal of Professional Capital and Community (2020).

28. Ratten, V. (2020). Coronavirus (COVID-19) and entrepreneurship: changing life and work landscape. Journal of Small Business & Entrepreneurship, 32(5), 503-516.

29. Roache, Darcia, Dina Rowe-Holder, and Richard Muschette. "Transitioning to Online Distance Learning in the COVID-19 Era: A Call for Skilled Leadership in Higher Education Institutions (HEIs)." CCEAM (2020): 103

30. Rodrigues, H., Almeida, F., Figueiredo, V., & Lopes, S. L. (2019). Tracking e-learning through published papers: A systematic review. Computers & Education, 136, 87-98.

31. Sahu, Pradeep. "Closure of universities due to Coronavirus Disease 2019 (COVID-19): impact on

education and mental health of students and academic staff." Cureus 12, no. 4 (2020).

32. Sandars, John, Raquel Correia, Mary Dankbaar, Peter de Jong, Poh-Sun Goh, Inga Hege, Ken Masters et al. "Twelve tips for rapidly migrating to online learning during the COVID-19 pandemic." MedEdPublish (2020): 3068

33. Shahzad, Arfan, Rohail Hassan, Adejare Yusuff Aremu, Arsalan Hussain, and Rab Nawaz Lodhi. "Effects of COVID-19 in E-learning on higher education institution students: the group comparison between male and female." Quality & Quantity (2020): 1-22

34. Technological development and the internet have changed the lives of people immensely and have also brought a huge change in various fields (Nadikattu, 2020).

35. Tesar, Marek. "Towards a post-COVID-19 'new normality?': Physical and social distancing, the move to online and higher education." (2020): 556-559.

36. Vershitskaya, E. R., Mikhaylova, A. V., Gilmanshina, S. I., Dorozhkin, E. M., & Epaneshnikov, V. V. (2020). Present-day management of universities in Russia: Prospects and challenges of e-learning. Education and Information Technologies, 25(1), 611-621.

37. Wargadinata, W., Maimunah, I., Eva, D., & Rofiq, Z. (2020). Student's responses on learning in the early COVID-19 pandemic. Tadris: Journal of Education and Teacher Training, 5(1), 141-153.

38. Zhao, Y., Wang, N., Li, Y., Zhou, R., & Li, S. (2021). Do cultural differences affect users'e□learning adoption? A meta□analysis. British Journal of Educational Technology, 52(1), 20-41.

39. Zhu, Xudong, and Jing Liu. "Education in and After COVID-19: Immediate Responses and Long-Term Visions." Post Digital Science and Education (2020): 1- 5

Our Contributors

Himanshu Pathik
Research Scholar, School of Media & Communication Design, IMS Unison University, Dehradun, Uttarakhand.

Yukti Dhadwal,
Research Scholar, Kurukshetra University, Haryana

Shubham Bhatia,
Assistant Professor, SRM University, Andhra Pradesh

Dr. C. K. Gomathy
Assistant Professor, Department of Computer Science and Engineering, Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kanchipuram, Tamilnadu.

Ashwatha Narayana S. L.
Research Scholar, Department of Electronic Media, Bangalore University.

Mohammed Zafar Iqbal
Research Scholar, Department of Electronic Media, Bangalore University.

Neha Bhushan
Research Scholar, Himachal Pradesh University, Summer Hill, Shimla, Himanchal Pradesh.

Anwesha Sen Majumdar
Research Scholar, School of Media and Communication Design, IMS Unison University, Dehradun, Uttarakhand.

Dr. Sushil Kumar Rai
Associate Professor, School of Media & Communication Design, IMS Unison University, Dehradun, Uttarakhand.

PRAGYAAN: JOURNAL OF MASS COMMUNICATION

Editorial Policy

Pragyaan: Journal of Mass Communication is a bi-annual peer-reviewed research Journal of IMS Unison University, Dehradun and is published in the months of June and December.

The Journal aims to create a platform, where ideas, concepts and applications related to the field of Mass Communication can be shared. The focus is on pure research, applied research and emerging issues in the field of Mass Communication and Media.

SUBMISSION GUIDELINES TO AUTHOR/S

1. **Submissions must be in Microsoft Word (MS Word):**

    The entire document should be in Times New Roman, single column, 1.5 line spacing. A soft copy of the document formatted in MS Word 97 or higher versions should be sent as submission for acceptance.

2. **Text Font Size:**

    Titleof the paper should be bold 16 point, and all paragraph headings should be Bold, 12point.

3. **Cover Letter:**

    Cover page: It should include (i) Title of the Paper; (ii) Name of the Author/s;Co-authored papers should give full details about all the authors; Maximum two author permitted (iii) Designation; (iv) Institutional affiliation; (v) Correspondence address. In the case of co-authored papers the First author will be considered for all communication purposes.

4. **The following pages should contain the text of the paper including:**

    Title, Abstract with Keywords (not exceeding 300 words),Introduction, Subject Matter, Conclusion, Suggestions & References. Name(s) of the author(s) should not appear on this page to facilitate blind review.

5. **Table/ Figure/ Images:**

    Place tables/figures/images in the text as close to the reference as possible. Table caption should be above the table. Figure caption should be below the figure. These captions should follow Times New Roman 11.

6. **Citations in APA Style:**

    References should be in standard APA style, such as:

    Chapter in an edited Book

    Stewart, B. (2007). Wag of the tail: Reflecting on pet ownership. In J. Jaimeson, T. Bannerman, & S. Wong (Eds.), Enriching our lives with animals (pp. 97-105). Toronto, Canada: Petlove Press.

    Article in a journal

    Light, M. A., & Light, I. H. (2008). The geographic expansion of Mexican immigration in the United States and its implications for local law enforcement. Law Enforcement Executive Forum Journal, 8(1), 73-82.

Article in a newspaper

Woods, C. (2011, October 24). The development of environmental consciousness in the United States. The Washington Psychic, pp. A2, A5.

From a website

Sanger, M. (2000). Women and the new race. Bartleby.com. http://www.bartleby.com/1013/ (Original work published 1920).

7. Plagiarism Disclaimer:

The article should contain a disclaimer to the effect that the submitted paper is original and is not being published or under consideration for publication elsewhere. (Annexure I) The signed document must be e-mailed/ posted to the Editor along with the manuscript.

8. Peer Review:

All submissions will go through an initial round of review by the editorial board and the selected papers will subsequently be sent for peer-review before finalization for publication.

All Correspondence/manuscripts should be addressed to:

Editor
Pragyaan: Journal of Mass Communication
IMS Unison University, Dehradun
Makkawala Greens, Mussoorie Diversion Road
Dehradun - 248009, Uttarakhand (India)
Phone: 0135-7155000, 7155350/1
E-mail:pragyaan.masscomm@iuu.ac

Plagiarism Disclaimer

The Editor
Pragyaan : Journal of Mass Communication,
IMS Unison University, Dehradun
Makkawala Greens, Mussoorie- Diversion Road,
Dehradun, Pin- 248001, Uttarakhand
Phone: 0135-7155000, 7155350/1
E-mail: pragyaan.masscomm@iuu.ac
Website: www.iuu.ac

Sir/Madam,

Sub: Assignment of Copyright

I/We (Ms./Mr./Dr./Prof.)_____, author(s)
of the article entitled_____

do hereby authorize you to publish the above said article in **PRAGYAAN: JOURNAL OF MASS COMMUNICATION.**

I/We further state that:

1) The Article is my/our original contribution. It does not infringe on the rights of others and does not contain any libelous or unlawful statements.

2) Wherever required I/We have taken permission and acknowledged the source.

3) The work has been submitted only to this journal **PRAGYAAN: JOURNAL OF MASS COMMUNICATION** and that it has not been previously published or submitted elsewhere for publication.

I/We hereby authorize, you to edit, alter, modify and make changes in the Article in the process of preparing the manuscript to make it suitable for publication.

I/We hereby assign all the copyrights relating to the said Article to the **IMS Unison University, Dehradun.**

I/We have not assigned any kind of rights of the above said Article to any other person/Publications.

I/We agree to indemnify the **IMS Unison University, Dehradun,** against any claim or action alleging facts which, if true, constitute a breach of the foregoing warranties.

First author   **Second author**   **Third author**
Name: Name: Name:

Signature: Signature: Signature:

Ethics Policy

1. Reporting Standards:

Authors of reports of original research should present an accurate account of the work performed and an objective discussion about its significance. Data, facts and figures should be represented accurately in the paper. A paper should contain sufficient detail and references to permit others to replicate the work. Fraudulent or knowingly inaccurate statements constitute unethical behaviour and are unacceptable.

2. Originality and Plagiarism:

The authors should ensure that their work is entirely original and have not been partially or totally published elsewhere or submitted for publication elsewhere. If the authors have used the work and /or words of others that ought to be appropriately cited or quoted. Authors are responsible for obtaining written permission in the case of using other images and artwork or for adaptations of such images if they do not have copyright over them.

Plagiarism will be followed by the rejection of the manuscript. Authors have full responsibility for the authenticity of their papers. In the case of multiple authors, the authenticity of the article needs to be ensured by all of them. Any unethical behaviour, manufacture of research results or promotion of deceitful or incorrect arguments may cause the rejection of a submission or the withdrawal of a published article.

3. Copyright:

Published articles are under the copyright of the journal. Partially or totally publication of an article elsewhere is possible only after the consent from the editors.

4. Multiple, Redundant or Concurrent Publication:

An author should not, in general, publish manuscripts describing essentially the same research in more than one journal or conference. Submitting the same manuscript to more than one journal or conference constitutes unethical publishing behavior and is unacceptable.

5. Acknowledgment of Sources:

Proper acknowledgment of the work of others must always be given. Authors should cite publications that have been influential in determining the nature of the reported work.

6. Authorship of the Paper:

Authorship should be limited to those who have made a significant contribution to the conception, design, execution, or interpretation of the reported study. All those who have made significant contributions should be listed as co-authors. Where others have participated in certain substantive aspects of the research project, they should be acknowledged or listed as contributors. The corresponding author should ensure that all appropriate co-authors are included in the paper and that all co-authors have seen and approved the final version of the paper and have agreed to its submission for publication. The corresponding author must maintain communication with all the co-authors.

7. **Disclosure and Conflicts of Interest:**

All authors should disclose in their manuscript any financial or another substantive conflict of interest that might be construed to influence the results or interpretation of their manuscript. All sources of financial support for the project should be disclosed.

8. **Author Self Archiving:**

The authors are not permitted to post published articles on their personal or institutional websites. However, they should post the published article information with a clear indication that the paper was published in the journal of Pragyaan: Journal of Mass Communication with a link to the journal's website.

9. **Fundamental Errors in Published Works:**

When an author discovers a significant error or inaccuracy in his or her own published work, it is the author's obligation to promptly notify the journal editor or publisher and cooperate with the editor to retract or correct the paper.

Peer Review Policy

Peer review is an integral part of our research journal. All the research papers will be sent to the Reviewer after concealing the name of the author and any other identification mark in this regard. We ensure that Peer review will be fair, honest and maintain confidentiality.

The practice of peer review is to ensure that only good research papers are published. It is an objective process at the heart of good scholarly publishing and is carried out by all reputable scientific journals. Our referees play a vital role in maintaining high standards and all manuscripts are peer-reviewed following the procedure outlined below.

Initial manuscript evaluation: The Editor first evaluates all manuscripts. It is rare, but it is possible for an exceptional manuscript to be accepted at this stage. Manuscripts rejected at this stage are insufficiently original, have serious scientific flaws, have poor grammar or English language, or are outside the aims and scope of the journal. Those that meet the minimum criteria are normally passed on to at least 2 experts for review.

Type of Peer Review: Our Policyemploys blind reviewing, where both the referee and author remain anonymous throughout the process.

How the referee is selected: Whenever possible, referees are matched to the paper according to their expertise and our database is constantly being updated.

Referee reports: Referees are asked to evaluate whether the manuscript. Follows appropriate ethical guidelines - Has results that are clearly presented and support the conclusions - Correctly references previous relevant work.

Language correction is not part of the peer-review process, but referees may, if so wish, suggest corrections to the manuscript.

How long does the review process take: The time required for the review process is dependent on the response of the referees. In rare cases for which it is extremely difficult to find a second referee to review the manuscript, or when the one referee's report has thoroughly convinced the Editor. Decisions at this stage to accept, reject or ask the author for a revision are made on the basis of only one referee's report. The Editor's decision will be sent to the author with recommendations made by the referees, which usually includes verbatim comments by the referees. This process takes one month. Revised manuscripts may be returned to the initial referees who may then request another revision of a manuscript or in case, the second referee the entire process takes 2-3 months.

Final report: A final decision to accept or reject the manuscript will be sent to the author along with any recommendations made by the referees and may include verbatim comments by the referees.

Editor's Decision will be final: Referees are to advise the editor, who is responsible for the final decision to accept or reject the research paper for publication.

Guidelines for Reviewers

The peer reviewers are responsible for critically reading and evaluating a manuscript in their specialty field, and then providing respectful, constructive, and honest feedback to authors about their submission. It is appropriate for the Peer Reviewers to discuss the strengths and weaknesses of the article, ways to improve the strength and quality of the work, and evaluate the relevance and originality of the manuscript.

All submitted papers are subject to a strict blind peer-review process by at least two reviewers that are experts in the area of the particular paper.

When reviewing the article, reviewer/s must keep the following points in mind:

- **Relevance:** Is this paper relevant as per the objective of the journal?

- **Standards:** Does the article adhere to the journal's standards?

- **Soundness:** Is this paper technically sound and complete?

- **Support:** Are the claims supported by experimental/theoretical results?

- **Originality:** Is the article original and interesting to warrant publication? Are the ideas/resultsnovel and previously unknown?

- **Organization and Clarity:** Is the paper well-written, well-structured &organized, well-illustrated, and easy to understand?

- **Language:** Is the paper written in correct English and style?

Of these, the main factors taken into account are significance and originality.

Therefore, Peer review assists Editor-in-Chief/Editor and the Editorial Board in making editorial decisions and through the editorial communications with the author may also assist the author in improving the paper.

IMS Unison University
SUBSCRIPTION/ADVERTISEMENT RATES

The Subscription rates for each of our four journals, viz., Pragyaan: Journal of Mass Communication, Pragyaan: Journal of Management, Pragyaan: Journal of Information Technology and Pragyaan: Journal of Law are as follows:

Category	1 Year		3 Years		5 Years	
	Domestic Rates (`)	Foreign Rates (US $)	Domestic Rates (`)	Foreign Rates (US $)	Domestic Rates (`)	Foreign Rates (US $)
Academic Institutions	500	30	1200	75	2000	120
Corporate	1000	60	2500	150	4000	240
Individual Members	400	25	1000	60	1600	100
Students	300	20	700	40	1200	75

Advertisement Rates (Rs.)

Location/Period	1 Year	2 Years	3 Years
B/W (Inside Page)	10,000/- (2 Issues)	18,000/- (4 Issues)	25,000/- (6 Issues)
Colour (Inside Back Cover)	17,000/- (2 Issues)	30,000/- (4 Issues)	45,000/- (6 Issues)
Single Insertion (1 Issue)(Inside B/W Page)- Rs. 5000/-			

SUBSCRIPTION FORM

I wish to subscribe to the following journal(s) of IMS Unison University, Dehradun:

Name of Journal	No. of Years	Amount
Pragyaan: Journal of Mass Communication		
Pragyaan: Journal of Management		
Pragyaan: Journal of Law		
Pragyaan: Journal of Computer Applications		
	Total	

A bank draft/cheque bearing no. _____ dated _____ for Rs._____
Drawn in favour of IMS Unison University, Dehradun towards the subscription is enclosed. Please register me/us for the subscription with the following particulars:

Name:_____ (Indiviual /Organisation)

Address_____

_____

Phone _____ Fax _____ E- mail: _____

Date: Signature (individual/authorized signatory)

Please send the amount by DD/Local Cheque favouring IMS Unison University, Dehradun, for timely receipt of the journal. Please cut out the above and mail along with your cheque /DD to: The Registrar, IMS Unison University, Makkawala Greens, Mussoorie Diversion Road, Dehradun 248009. Uttarakhand, India,
Phone No. -0135-7155000, 7155350/1

IMS Unison University at a glance

IMS Unison University, a constituent of Unison Group, is a premier educational and research University nestled amidst beautiful and serene surroundings offering an environment that fosters learning and stimulates creativity.

The Journey started in 1996 as IMS Dehradun, a non-profit organization set by a group of visionaries dedicated to the cause of changing the face of professional education in Northern India.

The University today provides a platform for excellence in teaching, learning, and administration. Its State-of-the-art Infrastructure facilitates in developing well trained graduate, post-graduate and doctorate professionals to meet the ever-changing needs of the corporate world.

IMS Unison University aspires to become a world-renowned center for creation and dissemination of knowledge. It aims to provide a holistic career-oriented education that develops intellectual, moral and physical capabilities of the students.

University presently offers under-graduate, post-graduate and doctorate programs in several streams of Management, Law, Mass Communication, Hotel Management and Liberal Arts under the following five schools:

1. School of Management
2. School of Law
3. School of Mass Communication
4. School of Hospitality Management
5. School of Liberal Arts

The University is committed towards delivering quality education, developing strong industry interface and providing placement opportunities to its students.

The University brings out the following three Journals, one each in the three disciplines of Management, Mass Communication and Law, in an effort to fulfill our objective of facilitating and promoting quality research work. These are:

- Pragyaan: Journal of Mass Communication

- Pragyaan: Journal of Management

- Pragyaan: Journal of Law

IMS UNISON
UNIVERSITY

Nurturing Knowledge. Empowering Minds.