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Author(s): Olaleye, Sunday Adewale

Title: Bibliometric Viewpoints of Wired Campus Through Higher Institution Blogging

Year: 2023

Version: Final typeset PDF

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### Please cite the original version:

Olaleye, S. A. (2023). Bibliometric Viewpoints of Wired Campus Through Higher Institution Blogging. In R- Taiwo, B. Idowu-Faith and S. Ajiboye (Eds.), Transformation of Higher Education Through Institutional Online Spaces, 160-178. IGI Global. DOI: 10.4018/978-1-6684-8122-6.ch010

URL: https://doi.org/10.4018/978-1-6684-8122-6.ch010

# Bibliometric Viewpoints of Wired Campus Through Higher Institution Blogging Sunday Adewale Olaleye

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The educational potential of blogs is currently being recognized more and more. Blogs can be used for collaborative projects, peer reviews, and group discussions. Blogging about a trendy interesting subject or topic creates an engaging platform for the blogger and the reader. Blogging for higher institutions encourages self-expression, critical thinking, creativity, and learning, and promotes resource sharing between students and teachers. This is a bibliometric research to measure the quantity and quality output of researchers, institutions, and countries; identify international collaboration; and map emerging multidisciplinary fields of science and technology. The results show growth in HEIs blogging, but the identified growth was found to be unstable.

Keywords: Blog, Blogging, Higher Institutions, Wired Campus, Teaching, Learning, Bibliometric

#### 1. Introduction

Blog, a truncation of the weblog, is becoming more relevant in industries and academia. A weblog is quadranscentennial with impact. Recent blogging statistics (Robinson, 2022) states that the average blog post writing accounts for 4 hours, and the average reader spends 52 seconds reading a blog post, while blog posts that showcase image and 75 to 100 words get more attraction and sharing in double. Regarding the global diffusion of blogs, it was stated that approximately 600 million blogs exist, and about 3.2 million new blog posts are published daily on average. At the same time, 77% of Internet users regularly read blog posts (Robinson, 2022). These profound statistics testified to the importance and relevance of blogs, especially in Higher Institutions. Online blogging has influenced teachers, students and other HEIs stakeholders' communication and writing styles (Cantina, 2022). For HEIs, Blog sites are a digital classroom without borders.

The educational potential of blogs is currently being recognized more and more. Blogs can be used for collaborative projects, peer reviews, and group discussions. Blogging about a trendy interesting subject or topic creates an engaging platform for the blogger and the reader. Blogging for higher institutions encourages self-expression, critical thinking, creativity, learning and promotes resource sharing between students and teachers. Because the students are technophiles, the blog has become a veritable tool for the wired campus. Weller (2022) emphasises that blogs are vital for educators and students. Beyond these two groups, blogging is essential for the whole campus community.

The blog has been a panacea for isolation and idleness during Covid-19. Radjuni (2022; Schlegel & Primacio, 2021) initiates a study that seeks to promote learners' independence in a 4.0 learning environment during the COVID-19 pandemic and create an engaging diverse community of learners in medical education. The authors aim to improve student writing skills through blogging, and it was found in the study that the students are interested in the continual use of blogs even after

the academic session (Forrester, Ashman & Kuebbing, 2022). Khan et al. (2021) confirmed the students perceived learning and satisfaction through blogging in HEIs as their perception revolves around digital technology, teaching and learning, previous blogging experience and the usefulness of blogging.

Similarly, Fraumann & Colavizza (2022) reviewed related blogs and news sites to explore the role of blogs in science communication literature during the Covid-19 pandemic and found that blogs and news sites are extensively used as scholarly communication channels. On the other hand, DeWaard & Roberts (2021) focused on open and online learning assessment through blogging based on Freire's assessment proposition. The authors discovered increasing blogging and science communication used in higher institutions during the Covid-19.

On the other hand, Weller (2022) explored five distinct educational technologies - blogs, social media, web, Learning Management Systems and Massive Open Online Courses (MOOCs) and the impact of these comparison on open education and overlapping digital education. Unlike earlier studies, Azizi, Namaziandost & Rezai (2022) explored the potentiality of podcasting and blogging for non-native English Speakers' Learners (EFL) learning English in a non-speaking English country. The authors used Iran as a case country and found that the study participants had positive perceptions toward using the duo of podcasting and blogging for reading comprehension.

Consistent with this study about the positive attitude of the students towards Blog, Omodara & Aboderin (2022) evaluated the student's perceptions towards the use of a blog for educational purposes in HEI in Nigeria and discovered a positive perception of the students towards Blogs as the blog helps the students to find solutions to their group assignments through interaction and reflective learning. The study further documents the dark side of Blogging in HEI in Nigeria to include erratic power supply, poor internet connectivity, as well as lack of smartphones and personal computers accessibility at the personal and institutional levels.

Blogging is for general and specific use. An example of specific use is the Plan Science Blogging project showcased in the study of Iriart et al. (2022) to facilitate a curriculum to develop student science communication skills. The results show that blogging helps students to share botanical knowledge with the public and impacts student learning and public engagement.

Blogging as a means of learning is predominant in HEIs. Dressler, Crossman & Kawalilak (2022) examined blogging for sojourners' intercultural communicative competence. The authors found that the sojourners did not find blogging helpful for dialogic or critical reflection but noted that the sojourners had chronicling experiences as completed actions. Similarly, Pedroni (2022) studied two decades of Fashion Blogging and its influence, and gave narratives of fashion blog evolvement, characteristics, and the concepts of influence and the influencer. Cantina (2022) explored the features of students' blog posts and found blogging attitude, content, connections with the audience and innovativeness as emerging features of students' Blog posts.

Blogging in HEIs is increasing in quantity and quality, and many scholars have contributed to the literature on blogging. However, blogging in HEIs with a bibliometric approach needs to be more detailed. This study will attend the following research questions to bridge the gap in the blogging literature: (a) What is the relevance of blogging in HEIs through scholarly literature? (b) Who are

the productive authors of the HEIs blogging literature, and how do they contribute to knowledge? (c)What is the outlook of co-word networking in the blogging literature? (d) What is the impact of the author's affiliation and country in the blogging literature? This study explained the methodology employed, presents the results, and concluded with study limitations and future study.

## 2. Methodology

This is a bibliometric study aimed at measuring the quantitative and qualitative output of researchers, institutions, and countries; identifying international collaboration; and mapping emerging multidisciplinary fields of science and technology. Bibliometrics research helps scholars explore trends in a field of study and provide evidence for the impact of the research. Further, it is an excellent channel to find new and emerging themes and areas of research and identifies research collaborators and suitable sources to publish (Olaleye, Sanusi & Dada, 2021).

The study also adopts the bibliometric workflow from Olaleye's (2020) study to accomplish the set objectives (Figure 1). Scopus is preferable for this study because it offers a more thorough and varied selection of scholarly information with global representation. Scopus database was used for the data extraction with the following search string: (TITLE-ABS-KEY (university AND blog)

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OR TITLE-ABS-KEY (university AND weblog)
OR TITLE-ABS-KEY (university AND weblogging)
OR TITLE-ABS-KEY (university AND blogging))
AND (LIMIT-TO (PUBYEAR, 2022)
OR LIMIT-TO (PUBYEAR, 2021)
OR LIMIT-TO (PUBYEAR, 2020)
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OR LIMIT-TO (PUBYEAR, 1989))
AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")).
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Initially, Scopus generated 1255 academic papers on 22.10.2022, and after inclusion and exclusion criteria from 1989-2022, 630 documents were used for the data analysis via R-Biblioshiny App as proposed by Aria & Cuccurullo (2017). Biblioshiny is a web-based application designed to assist researchers in managing and analyzing bibliographic data. The application offers advanced search and filtering capabilities, enabling researchers to conduct comprehensive literature reviews. Researchers can perform keyword searches, apply filters based on criteria such as publication year or author, and generate customized reports or summaries of relevant articles. This bibliometric app helps researchers identify key papers, track research trends, and gain insights into existing knowledge.

The application offers data analysis and visualization tools that can assist researchers in uncovering patterns and trends within their bibliographic data. Researchers can explore co-authorship networks, analyze keyword frequency, or generate visualizations such as word clouds or network graphs. These analytical capabilities aid researchers in identifying research gaps, identifying potential collaborators, and gaining insights into the literature landscape. The application is user-friendly, and the researchers can quickly learn and maximize its features without extensive training. Some earlier authors have used Biblioshiny app in different research domains (Cuccurullo, Aria & Sarto, 2016; Olaleye, Sanusi, Dada & Agbo, 2023; Agjei, Adusei-Mensah, Balogun & Olaleye, 2023).

#### 3. Results

Biblioshiny generates different charts and tables that create new knowledge in the research of HEIs blogging. This section presents these results based on the research questions that emanate from the existing literature. The results also show the productive authors and their consistency over years. Such authors are Gray with five publications in three years. Further, Boulton and Hramiak had four publications in four years. These authors contributed to the body of knowledge with great impact. Gray had citations of 328 while Boulton and Hramiak had 74 citations. The outlook of coword networking in the blogging literature also shows the significance of blogging for students' reflections, engagement, and effective learning. The results also show the effective collaboration

of the United States with twenty-two countries globally. The results show clearly that blogging in HEIs is very relevant to the HEIs community and other stakeholders. These results also was evident with the frequency of funding that accumulated in the past 33 years.

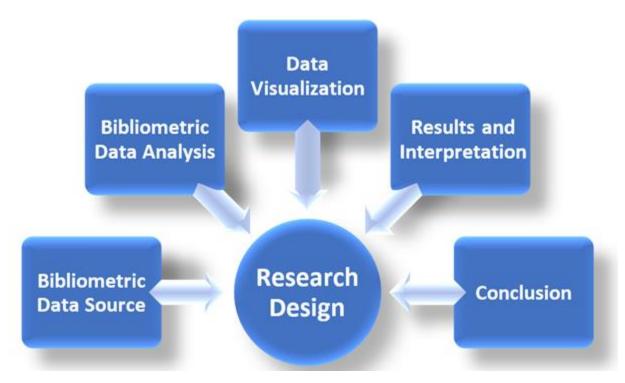


Figure 1. Adapted Workflow



Figure 2. HEIs Blogging Descriptive

The descriptive statistics (Figure 2) cover 33 years with 428 sources and 630 documents which account for a 9.82% Annual Growth Rate. The involved authors account for 1484. 192 authors had single-authored documents, only 9.5% had international co-authorship and 2.5 co-authors per document. The authors' keywords were 1747 with 7.68 average document age and 15.7 average citations per document.

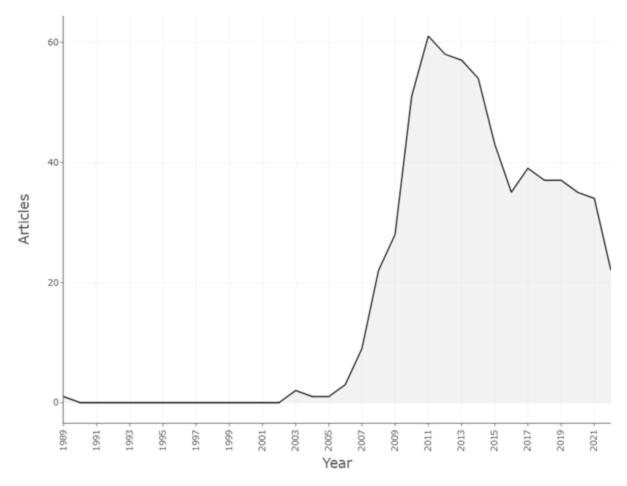


Figure 3. HEIs Blogging Annual Production

One article was recorded in 1989, and no article was recorded from 1990 to 2002, a clear indication of one decade and three months of authors' inactivity in HEI blogging. There was a step-up in 2003 with two articles and a gradual growth till 2007. There was an upward rise from 2008 to 2010 and a spike in 2011 with 61 articles. From 2012 to 2021, there was a downward trend in article production from the spike in 2011. At the time of this study, in October 2022, there were 22 articles (Figure 3). There was growth in HEIs blogging, but it needed to be more stable.

The study utilized the filter feature of Biblioshiny to divide the annual article production into three decades based on yearly citations (Table 1). The research activity showed distinct patterns during the first decade spanning from 1989 to 1999, the second decade from 2000 to 2010, and the third decade from 2011 to 2021. In 1989 there was notable research activity with an average of 30 citations per article and 0.91 citations per year, encompassing 33 citable years. However, nine years of inactivity (1990-1999) followed. In the second decade (2000-2010), there was a gradual increase in research activity, and in 2005, there was a significant surge with an average of 74 citations per article.

Moreover, there was a notable increase in research impact in 2005, with an average of 4.35 citations per year. In the third decade, 2011 stood out with an average of 30.51 citations per article

and 2.77 citations per year, covering 11 years. The second decade (2000-2010) shows the highest citation rate among the three decades.

Table 1. Three Decades of HEIs Blogging Production

Year	N	MeanTCperArt	MeanTCperYear	CitableYears	Coverage
1989	1	30	0.91	33	1989 - 1990
2003	2	6.50	0.34	19	
2004	1	1.00	0.06	18	
2005	1	74.00	4.35	17	
2006	3	4.33	0.27	16	2000 - 2010
2007	9	23.22	1.55	15	2000 - 2010
2008	22	35.86	2.56	14	
2009	28	16.57	1.27	13	
2010	51	30.84	2.57	12	
2011	61	30.51	2.77	11	
2012	58	16.07	1.61	10	
2013	57	12.25	1.36	9	
2014	54	14.72	1.84	8	
2015	43	15.23	2.18	7	
2016	35	17.40	2.90	6	2011 - 2021
2017	39	13.64	2.73	5	
2018	37	7.54	1.89	4	
2019	37	3.84	1.28	3	
2020	35	3.17	1.59	2	
2021	34	3.21	3.21	1	

Note. MeanTCperArt: Mean Total Citation per Article; MeanTCperYear: Mean Total Citation per year.

Boulton H. and Hramiak A. were active in the HEIs blogging research domain in 2009, each with one publication. They received a total of 33 citations, averaging 2.357 citations per year. In 2010, Gray K. emerged as a highly productive author, with three publications and 256 citations, averaging 19.692 citations per year. Kennedy G. had two publications with 181 citations (13.923 total citations per year), while Lee L. had one with 96 citations (7.385 total citations per year). Gray K. was the most productive author, with a three-year publication coverage (2010, 2012, and 2015). 2010 was particularly productive for Gray, with three publications and 328 citations (28.044 total citations per year). However, Gray did not publish any related papers on HEIs blogging from 2016 onwards unless the author's papers were under review or work in progress (Appendix 1).

Boulton H. and Hramiak A. were the most consistent authors, consistently publishing one paper for four years, with a gap in 2010 and 2011. Ifinedo and Lin were consistent in their publication output, with no gaps in their publications. Ifinedo covered 2017 to 2018, while Lin covered 2015 to 2016. Interestingly, Gray had the highest number of citations overall, but Hafner had lower total citations than Gray. However, Hafner had a higher average of total citations per year than Gray. Over time, the authors' publications showed a decline or dwindling trend. These insights provide

an overview of various authors' productivity, citation rates, and consistency in HEIs blogging research (Appendix 1).

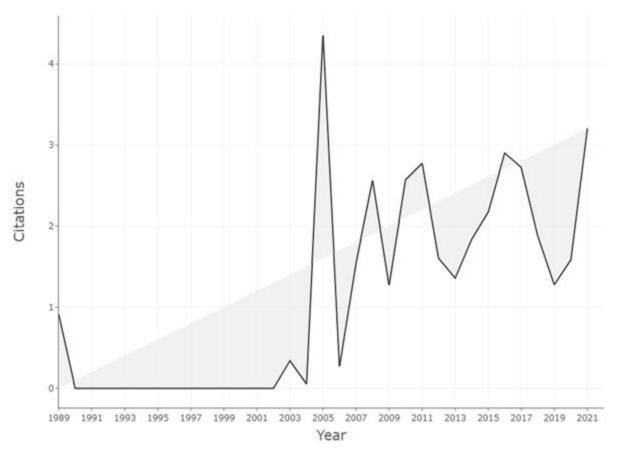


Figure 4. HEIs Blogging Annual Citations

The line graph in Figure 4 reveals trends of annual citations over time (1989 - 2021). The chart shows the changes over short and long periods of time and paved the way for comparison. The mean total citation per article starts with 30 in 1989 and became flat from 1990 to 2002 (no citations). It rose with 1 citation in 2004 and the spike with 74 in 2005. The annual citations of HEIs blogging were undulating from 1989 to 2021 with few exceptions. Citation is a measure of impact and the research on HEIs blogging has the highest impact in 2005.

Collaboration brings two or more researchers together to combine skills, knowledge, and experience with the common goal of achieving the same on a particular project. According to Bansal, et al. (2019, p. 137), "collaborative research involves coordination between the researchers, institutions, organizations, and/or communities". The authors classified collaboration as voluntary, consortia, federation, affiliation and merger and span five levels of disciplinary, interdisciplinary, multi-disciplinary, trans-disciplinary, national, and international. The intent of academic research is to exchange ideas, learn new skills, joint funding application, to publish in high impact journal. In summary, collaboration fosters knowledge sharing, promotes best practices across disciplines and serves as a veritable tool for mentor-mentee relationship (Olaleye, et a., 2022).

This study examined collaboration among countries globally, and the results reveal sixteen clusters of collaboration (Appendix a and b). The focal country in cluster 1 is Australia and the collaboration covers five countries. Out of the five countries, Australia had two publications with the Netherlands while the remaining four countries only reflect one publication. Cluster 2 result is like the cluster 1. Canada led the collaboration and had 2 publications with Japan and one publication with other four countries. Clusters 3 to 8 and 10 to 14 collaborations only yielded one publication each between the leading countries with their collaborators. Cluster 9 showcases Malaysia with two other countries and had 2 publications with Pakistan. Cluster 15 had 12 countries with one publication each with the United Kingdom and two publications with Spain. United States of America (USA) excelled in collaboration with 22 countries. USA had 2 publications with Spain, 3 with Australia and Korea, 5 with China, 6 with Canada and 8 with the United Kingdom. Cluster 16 is the biggest collaboration cluster and the most productive.

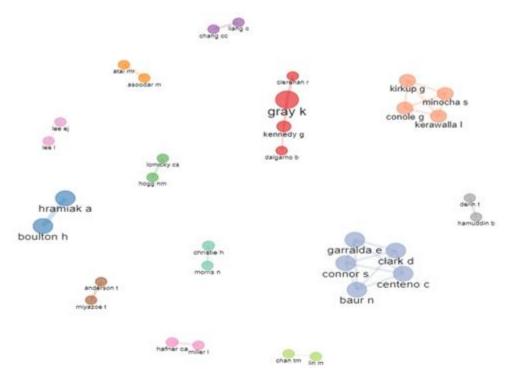


Figure 5. HEIs Blogging Authors' Collaboration

Authors' collaboration in Figure 5 shows the networking between different authors in the field of HEIs blogging. Biblioshiny reveals thirteen (13) clusters of authors with three indicators of network betweenness, closeness and page rank. Betweenness shows the frequency of the shortest path between nodes. In cluster one, Gray and Kennedy had the highest between of 2. The two authors mentioned also had 0.25 closeness but differed in page rank. Gray had 0.046 while Kennedy had 0.04. Gray is the focal author in cluster one and followed closely by Kennedy. Closeness in a network indicates the score of proximity of nodes in the network while page rank score is based on direct and indirect connections. Apart from cluster one, there was no betweenness score in other twelve clusters. Clusters 2 to 9, 12 and 13 had the highest closeness score of one while clusters 1 and 11 had the same closeness score of 0.25. Also, cluster one had the highest and

lowest page ranks. Gray had 0.05 while Dalgarno had 0.02 while clusters 2 to 13 had same page rank scores of 0.03. The collaboration Figure shows authors in a publication network that are macro-influencers, micro-influencers, and how authority exhibited in a network and command of citations. There is a need for more authors to be involved in HEIs blogging research especially in Africa and need for more concentrated collaboration globally.

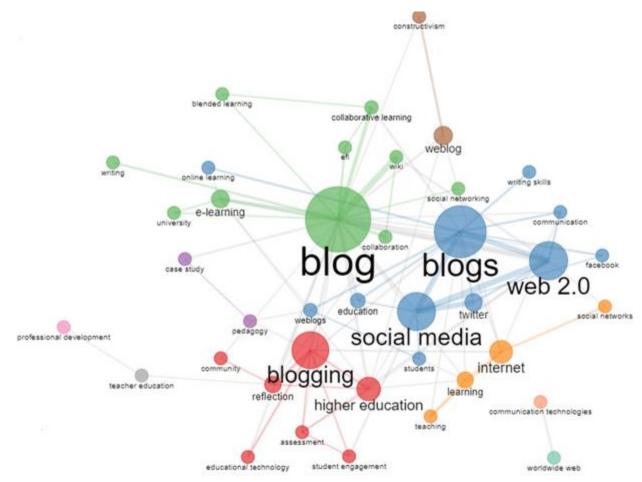


Figure 6. HEIs Blogging Co-occurrence Network

HEIs blogging co-occurrence network shows the graphic visualization of potential relationship between different concepts in Figure 6. The co-occurrence network depicts different keywords such as 'blog', 'blogs', 'blogging', and 'weblog' that researchers used interchangeably while associating HEIs with blog.

In a bibliometric context, betweenness, closeness, and PageRank are measures used to assess scholarly publications or authors' influence, centrality, and prominence within a network.

Betweenness centrality is a measure that quantifies the extent to which a publication or author acts as a bridge or intermediary between other publications or authors in a citation network. It measures the author's capacity to regulate the circulation of information within the network. A high betweenness score indicates that the publication or author is critical in connecting different network parts, making them influential in disseminating and sharing information (Liu, et al. 2005).

Closeness centrality measures how close a publication or author is to other publications or authors regarding direct or indirect connections within the citation network. It calculates the average shortest path length from a publication or author to all other publications or authors in the network. A high closeness score indicates that the publication or author is well-connected and can easily access or disseminate information within the network. Closeness centrality reflects the efficiency of information flow to and from a publication or author (Liu, et al. 2005).

PageRank can be applied to assess the influence or importance of scholarly publications or authors in a citation network. It assigns higher scores to publications or authors that other influential publications or authors cite. PageRank considers the number of citations and the quality of the citing publications or authors, attributing more weight to citations from highly ranked or influential sources. The PageRank score reflects the prominence or authority of a publication or author within the network (Liu, et al. 2005).

These measures provide quantitative insights into the centrality, influence, and prominence of publications or authors in bibliometric analysis. They help researchers identify critical publications, influential authors, or important pathways of information flow within the scholarly network, contributing to understanding research impact and knowledge dissemination.

The Biblioshiny algorithm shows ten distinct clusters of word co-occurrence based on betweenness, closeness and page rank. In cluster one, there is connection of blogging as a focal concept with 'Higher Education', 'Reflection', 'Assessment'. 'Educational Technology', 'Community' and 'Student Engagement'. Reflection had the highest betweenness score of 81.4 and there were no betweenness scores for educational technology and community. In cluster 1, the blogging that is the focal word had only 44.3 betweenness, 0.015 closeness and 0.041-page rank. An earlier study (Chu, Kwan & Warning, 2012) mentioned that blogging platforms promote self-reflection and communication. Blogs in cluster two had 136.5 betweenness, 0.016 closeness and 0.084-page rank. In the co-occurrence network, blogs connect 'Social Media', 'Web 2.0', 'Twitter', 'Education', 'Weblogs', 'Communication', 'Online Learning', 'Students', 'Facebook', and 'Writing Skills.' Blog in cluster three had the highest betweenness of 348.37 and linked with 'E-learning', 'Collaborative Learning', 'Collaboration', 'Social Networking', 'Wiki' 'Blended Learning', 'EFL', 'University' and 'Writing.' Cluster nine (worldwide web) and cluster ten (communication technologies) had the highest closeness of 1 while cluster three had the highest page rank of 0.15. This Figure shows influential concepts in a network of words.

### **HEIs Blogging Funding**

Though not all the research requires funding. Also, not all the researchers that were privileged to get funding, but funding is very crucial to the success of a research especially the research that has a wider scope and rigorous research design. HEIs blogging is multidisciplinary research and for the past 33 years, it attracted funding from different continents. As shown in Table 4 Ministry of Science and Technology from Taiwan had the highest frequency of funding (6) which accounts for 11 per cent of the total funding and closely followed by National Natural Science Foundation of China with 5 frequency and 9 per cent of the total fund. Overall, there was 25 funding for the

HEIs blogging research. This funding opportunities depict the importance of HEIs blogging research.

Table 4. Lists of HEIs Blogging Funders and Frequency

N0	Funder	Frequency	Percentage
1	Ministry of Science and Technology Taiwan	6	11
2	National Natural Science Foundation of China	5	9
3	National Science Council	4	7
4	National Science Foundation	4	7
5	Arts and Humanities Research Council	3	5
6	National Basic Research Program of China (973 Program)	3	5
7	Australian Research Council	2	4
8	Chinese Academy of Sciences	2	4
9	European Commission	2	4
10	Fundamental Research Funds for the Central Universities	2	4
11	Medical Research Council	2	4
12	Ministerio de Ciencia e Innovacion	2	4
13	Ministerio de Economia y Competitividad	2	4
14	Ministry of Science and Technology of the People's Republic of China	2	4
15	National Institutes of Health	2	4
16	National Key Research and Development Program of China	2	4
17	UK Research and Innovation	2	4
18	Universidad de Zaragoza	2	4
19	University of Exeter	2	4
20	Agricultural Research Division, Institute of Agriculture and Natural Resources	1	2
21	American Chemical Society	1	2
22	Beijing Language and Culture University	1	2
23	Boise State University	1	2
24	Cancer Research UK	1	2
25	Cape Breton University	1	2
	Frequency and Percentage Total	57	100

### 4. Conclusion

The study reviewed HEIs blogging literature for over three decades (33 years). The results show that the academic literature production is unstable, and the citations dwindle. The study also reveals a gap in the global collaboration of African authors. Egypt and South Africa had minor visibility.

Blogging on the web can be a valuable tool for institutions of higher education seeking to improve communication, boost learning opportunities, promote visibility, foster collaboration, and enhance their reputation. Blogging can convey information regarding institution-related events, announcements, and updates. This information sharing can help keep students, professors, and staff abreast of campus events and can be a powerful platform for boosting student learning and

engagement. It can be utilized to give students access to course materials, assignments, and other helpful tools for academic success. It can assist higher education institutions in expanding their visibility and reach by increasing website traffic. This visibility can be especially beneficial for universities attempting to recruit new students or cultivate relationships with potential funders and partners. Blogging on the web can encourage collaboration and teamwork among students, instructors, and staff by giving a forum for exchanging ideas and resources. By sharing information about the institution's accomplishments and objectives through blogging, higher education institutions can boost their reputation and image in the community.

From a managerial perspective, blogging facilitates enhanced communication and is an impactful tool to promote transparency and foster better communication among students, faculty, and staff. Its utilization extends to disseminating information regarding institutional events, announcements, and updates. Moreover, blogging has the potential to broaden the horizons of learning by effectively promoting student engagement and facilitating valuable learning opportunities. It can be used to give students access to course materials, homework, and other resources that will help them succeed in their studies. Further, it can increase visibility by attracting more higher institutions visitors to their websites, higher education institutions can increase their visibility and reach. This is especially useful for institutions looking to attract new students or build relationships with potential donors or partners. Blogging can improve collaboration by providing a platform for sharing ideas and resources, blogging can help students, faculty, and staff work together more effectively and improve reputation of higher education institutions and image in the community by using blogging to share information about their accomplishments and initiatives. Blogging can be a useful tool for higher education institutions looking to improve communication, learning opportunities, visibility, collaboration, and reputation.

In several ways, blogging can be a useful tool for higher education institutions. For instance, it could enhance information sharing. Blogging can be used to share information about the institution's events, announcements, and updates. This is especially useful for keeping students, faculty, and staff up to date on campus events. It can also improve learning. Blogging can be an effective tool for promoting student learning and engagement. It can be used to give students access to course materials, homework, and other resources that will help them succeed in their studies. In addition, it could increase visibility by attracting more visitors to their websites, higher education institutions can increase their visibility and reach. This is especially useful for institutions looking to attract new students or build relationships with potential donors or partners. It could facilitate collaboration by providing a platform for sharing ideas and resources, blogging can promote greater collaboration and teamwork among students, faculty, and staff. Lastly, it could improve the reputation and image of the HEIs community by using blogging to share information about their accomplishments and initiatives.

Students also benefits from blogging in a various way. It Increases learning opportunities by blogging about their coursework, students can engage with the material in a deeper and more

meaningful way, as well as reflect on and share their learning with others. It improved students' communication skills. Blogging can help students improve their writing and communication skills because they must write clear and concise posts that effectively convey their thoughts and ideas. It also increases students' exposure. Blogging allows students to share their work and ideas with a larger audience, allowing them to build their online presence and potentially attract future employers and help students to develop better time management skills. Blogging requires students to plan and organize their thoughts, set goals, and meet deadlines, all of which can help them improve their time management skills. Further, it is a platform that can stir students' motivation. Blogging can be a motivator for students because it allows them to share their accomplishments and progress with others, providing a sense of accomplishment and encouraging them to keep working hard.

Teachers also can be a benefactor of blogging is different ways. One, blogging can be a useful tool for teachers to communicate with their students and share resources, assignments, and course updates. Two, incorporating blogs into their coursework, teachers can provide their students with a more interactive and engaging learning experience. Three, because blogging provides a platform for sharing ideas and resources, it can help students collaborate and work together more effectively. Four, teachers can use blogging to stay current on the latest research and best practices in their field, as well as to share their own ideas and experiences with their colleagues and enhance their professional development. Five, by attracting more readers to their blog, teachers can increase their visibility and reach. This is especially beneficial for teachers who want to improve their professional reputation or network.

This research contributes to the bibliometric discussion on viewpoints of wired campus through higher institutions blogging and shows how blogging literature is evolving. This study reveals how HEIs blogging is a power tool to build academic community and how teachers can use blogging as a means of reflection, assessment and for students' engagement. The study also shows how HEIs blogging can be a platform of communication and socialization with an integrated social media such as Facebook, Twitter. It is also a platform to develop students writing skills. Further, this study shows intercontinental research gap in HEIs blogging.

This study contributes to the literature on HEIs and blogging, but it has limitations. Firstly, it focuses only on English language publications, excluding thirteen other languages, such as Spanish and German, which could provide valuable insights. Secondly, the study relies on a single database (Scopus), potentially missing out on insightful papers from other databases. Future research should consider multiple databases and expand the evaluation of blogging to other HEIs. Additionally, conducting research at the continent and country levels would further enrich the discussion on this topic.

This study recommends that future researchers should explore relevant theories for the advancement of research domain of HEIs blogging.

- 1. Uses and gratifications theory: According to this theory, people use media to meet their own needs and goals. This theory could be applied to blogging to investigate why people choose to blog and what they hope to achieve through their blogging activities (Ruggiero, 2000).
- 2. Social exchange theory: According to this theory, people engage in social interactions to maximize their own rewards while minimizing their costs. This theory could be applied to blogging to investigate how bloggers interact with their readers and what they hope to gain from these interactions (Cropanzano & Mitchell, 2005).
- 3. Self-determination theory: According to this theory, people are motivated to participate in activities that make them feel competent, autonomous, and connected to others. This theory could be applied to blogging to investigate how bloggers' sense of self-determination influences their blogging behavior (Deci & Ryan, 2012).
- 4. Cultivation theory: According to this theory, media consumption can shape people's perceptions of reality. This theory could be applied to blogging to investigate how blog content shapes readers' worldviews (Potter, 1993).
- 5. Social cognitive theory: According to this theory, people learn by observing and imitating others. This theory could be applied to blogging to investigate how bloggers are influenced by the content and style of other bloggers (Luszczynska & Schwarzer, 2015).

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Appendix 1. Author's Year of Production, Frequency, Total Citations and Total Citations per Year

Author	Year	Freq	TC	ТСрҮ
Boulton H	2009	1	33	2.357
Boulton H	2012	1	32	2.909
Boulton H	2013	1	5	0.5
Boulton H	2014	1	4	0.444
Total	4	4	74	6.21
Christie H	2019	1	7	1.75
Christie H	2021	2	5	2.5
Total	2	3	12	4.25
Gray K	2010	3	256	19.692
Gray K	2012	1	19	1.727
Gray K	2015	1	53	6.625
Total	3	5	328	28.044
Hafner C A	2011	1	162	13.5
Hafner C A	2012	1	21	1.909
Hafner C A	2014	1	123	13.667
Total	3	3	306	29.076
Hramiak A	2009	1	33	2.357
Hramiak A	2012	1	32	2.909
Hramiak A	2013	1	5	0.5
Hramiak A	2014	1	4	0.444
Total	4	4	74	6.21
Ifinedo P	2017	1	82	13.667
Ifinedo P	2018	2	48	9.6
Total	2	3	130	23.267
Kennedy G	2010	2	181	13.923
Kennedy G	2019	1	6	1.5
Total	2	3	187	15.423
Lee L	2010	1	96	7.385
Lee L	2011	1	23	1.917
Lee L	2016	1	2	0.286
Total	3	3	121	9.588
Lin M	2015	1	66	8.25
Lin M	2016	2	35	5
Total	2	3	101	13.25
Tomášková R	2017	1	2	0.333
Tomášková R	2019	1	1	0.25
Tomášková R	2021	1	0	0
Total	3	3	3	0.583

Appendix 2a. Countries' World Collaboration

From	То	Frequency	Cluster	
	India	1		
	Netherlands	2		
Australia	New Zealand	1	1	
	Singapore	1		
	Spain	1		
	Hong Kong	1		
	Ireland	1		
Canada	Japan	2	2	
	Lebanon	1		
	Saudi Arabia	1		
	Australia	1		
	Italy	1		
	Korea	1		
China	Malaysia	1	3	
	Pakistan	1		
	Qatar	1		
	Turkey	1		
Cormany	Austria	1	4	
Germany	Brazil	1	4	
India	Singapore	1	5	
Iran	Iraq	1	6	
Ireland	Saudi Arabia	1	7	
Korea	Qatar	1	8	
0.4-1	Pakistan	2	•	
Malaysia	Saudi Arabia	1	9	

Appendix 2b. Countries' World Collaboration

From	То	Frequency	Cluster
	Belgium	1	
	Chile	1	10
	Cyprus	1	10
Netherlands	France	1	
Saudi Arabia	Egypt	1	11
Saudi Arabia	Pakistan	1	11
South Africa	Kenya	1	12
Casia	Ecuador	1	12
Spain	Portugal	1	13
	Cyprus	1	
	Italy	1	14
Turkey	Netherlands	1	
	Australia	1	
	Austria	1	
	Belgium	1	
	Canada	1	15
	Chile	1	
11 - 9 - d 12 d	China	1	
United Kingdom	Iran	1	
	Ireland	1	
	Malaysia	1	
	Netherlands	1	
	Spain	2	
	Switzerland	1	
	Australia	3	
	Austria	1	
	Belgium	1	
	Canada	6	
	China	5	
United States of	Germany	1	
United States of America	Hong Kong	1	16
, arrefred	India	1	
	Ireland	1	
	Italy	1	
	Jordan	1	
	Korea	3	
	Lebanon	1	

Lithuania	1	
Netherlands	1	
New Zealand	1	
Qatar	1	
Spain	2	
Turkey	1	
Uganda	1	
Ukraine	1	
United Kingdom	8	