A Review of Collective Memory Research (1993-2023): Trends, Patterns, and Prospects

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Amal K. Hamada
Political Science Department, Faculty of Economics and Political Science, Cairo University, Egypt, amalhamada@cu.edu.eg

Ruqayyah M. Al-Jaafari
Socio-Computing Department, Faculty of Economics and Political Science, Cairo University, Egypt, ruqayyah@cu.edu.eg

Nahed T. Zeini
Socio-Computing Department, Faculty of Economics and Political Science, Cairo University, Egypt, nahed.taha@cu.edu.eg

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Abstract

This paper aims to provide a comprehensive bibliometric analysis of scientific publications in collective memory from 1993-2023. A total of 10,431 articles were published during the study period. The United States, United Kingdom, and Germany have the highest publications share. The Russian Academy of Sciences, the Hebrew University of Jerusalem, and the University of Warsaw are the most productive institutions. Upon keyword and content analysis, further research directions have been proposed, such as memory law, populism, rhetorical history, and organizational memory. Utilizing modern analytics approaches to explore the complexity of collective memory phenomena, such as big data analytics, artificial intelligence (AI), deep learning, and the Internet of Things (IoT), is highly recommended. This study is valuable for readers to gain rich insights into the state of collective memory research. It also provides ideas for future research that prospective authors and interested research and academic institutions can investigate.

Keywords: Collective memory, National identity, Bibliometric, Network visualization, Scopus

1 Introduction

Memory remains both a concept and a process perpetually under exploration and discovery. As memory studies evolve, it becomes increasingly clear that it extends far beyond the current boundaries of our understanding. It reflects the dynamic interplay between individual cognition, collective experience, and cultural experience that is emerging with research and study. As such, memory studies deal with complex phenomena that not only provide a compass for individuals and societies to interpret, understand, and navigate the past but constantly set foot in shaping the future of humanity. It can be said that memory characterizes the human search for meaning and knowledge. It's a concept and a process that has human experiences at its center. (L., 2021). This paper is an attempt to delve into the scientific archiving of memory studies. It documents what the scientific community realizes, remembers and rewrites

about in collective memory, which is a process of creating collective memory for the academic community.

Collective memory refers to the specific content of what is remembered by a group and how these memories exist within the collective consciousness. It zeroes in on the actual memories themselves—specific events, and what is remembered (or forgotten) and how these shared memories contribute to a collective sense of identity and understanding of the past, present and the future (Wertsch & Roediger, 2008). As a result, it reflects the contested identities that carry them. As certain events rise more than others, media, conventional or digital, plays key roles in this process (S., 2024). Therefore, collective memory, referring to what is remembered, often intersects with social memory; how collective memory is remembered (Assmann & Czaplicka, 1995).

As those in power take advantage of the different narratives to restate their own, collective memory becomes a means in the hands of politics. Moreover, the study of collective memory no longer focuses solely on certain events or identities to be remembered but amounts equal weight to the dynamics through which these memories are transmitted. It becomes a tight web of information and information transmission, where political influence dictates what to remember, when, and how. As such, politics of memory is treated as a new paradigm in political science and memory studies (Verovšek, 2016).

Consequently, and because of the importance of this research topic, this paper will utilize bibliometric analysis to perform knowledge analysis on the research of "Collective Memory" to discover objective and unobservable patterns. Analysis helps in evaluating research achievements by giving a comprehensive view of past and current research achievements and suggesting future research directions that fill the literature gaps. The popularity of bibliometric analysis in social research is not a heresy but rather a reflection of its utility for handling a large volume of scientific bibliometric data. This popularity results from the accessibility of scientific databases, such as Scopus, Web of Science (WoS), and Google Scholar, which easily offer large volumes of bibliometric data. Alongside this, the availability of many bibliometric and informatics tools, such as VOSviewer, Bibliometrix-R Package, Cytoscape, Gephi; and PRISMA (Donthu, Kumar, Mukherjee, Pandey, & Lim, 2021).

To the best of the authors' knowledge, no comprehensive, methodologically grounded bibliometric and qualitative literature reviews on Global research of "Collective Memory" have been published so far. (KARACA & AKBABA, 2022) paper used the Web of Science database to give an overview of collective memory research, but they limited their research to specific categories: history, geography, and educational research. Therefore, this study is intended to fill this gap, by (1) investigating the broad and multiple interlinkages between the concept of "Collective Memory" and its multiple forms, as well as other related concepts such as "Politics," and "Identity" and (2) analyzing related literature and uncovering the hotspots topics under this

research topic. To achieve this objective, the following research questions are pursued:

RQ1. How well is the progress in the research of collective memory?

RQ2. Which research channels are the most contributed/impactful in the research of collective memory?

RQ3. Who are the most contributing authors to the research of collective memory?

RQ4. What are the core topics and hotspots for the research of collective memory?

RQ5. What are the emerging trends in this research topic, giving researchers new avenues for exploring the emergence of such a phenomenon and its complexities and dynamics?

The remainder of this paper is structured as follows. **Section 2** presents the data and methodology. **Section 3** presents the bibliometric analysis results. **Section 4** discusses and concludes the research.

2 Material and Methods

In this paper, bibliometric analysis was then conducted in three stages as follows (**Figure 1**):

Stage 1. Search and Data Collection

The data source for this analysis was the Scopus database. Scopus is a well-known, rich, and widely used scientific literature database to perform bibliometric studies. It is a large multidisciplinary database containing peer-reviewed academic literature. Scopus is highly regarded for its accessibility to reputable journals, advanced search functions, and features that allow for customizable bibliometric analysis. Compared to other databases, such as the Web of Science (WoS), Scopus includes a substantial number of published documents (Ahmed, Alshater, El Ammari, & Hammami, 2022).

Documents were retrieved by searching (TITLE-ABS-KEY ("Collective Memor*") OR TITLE-ABS-KEY ("Social Memor*") OR TITLE-ABS-KEY ("Memory Politics") OR TITLE-ABS-KEY ("Politics of Memor*"))), which searches in the title, abstract, author keywords, and keywords plus. The search was conducted on January 24, 2024, and filtered to include articles, review articles, book chapters, and proceeding papers, resulting in 10,431 publications, which span 30 years of scientific output (1993-2023).

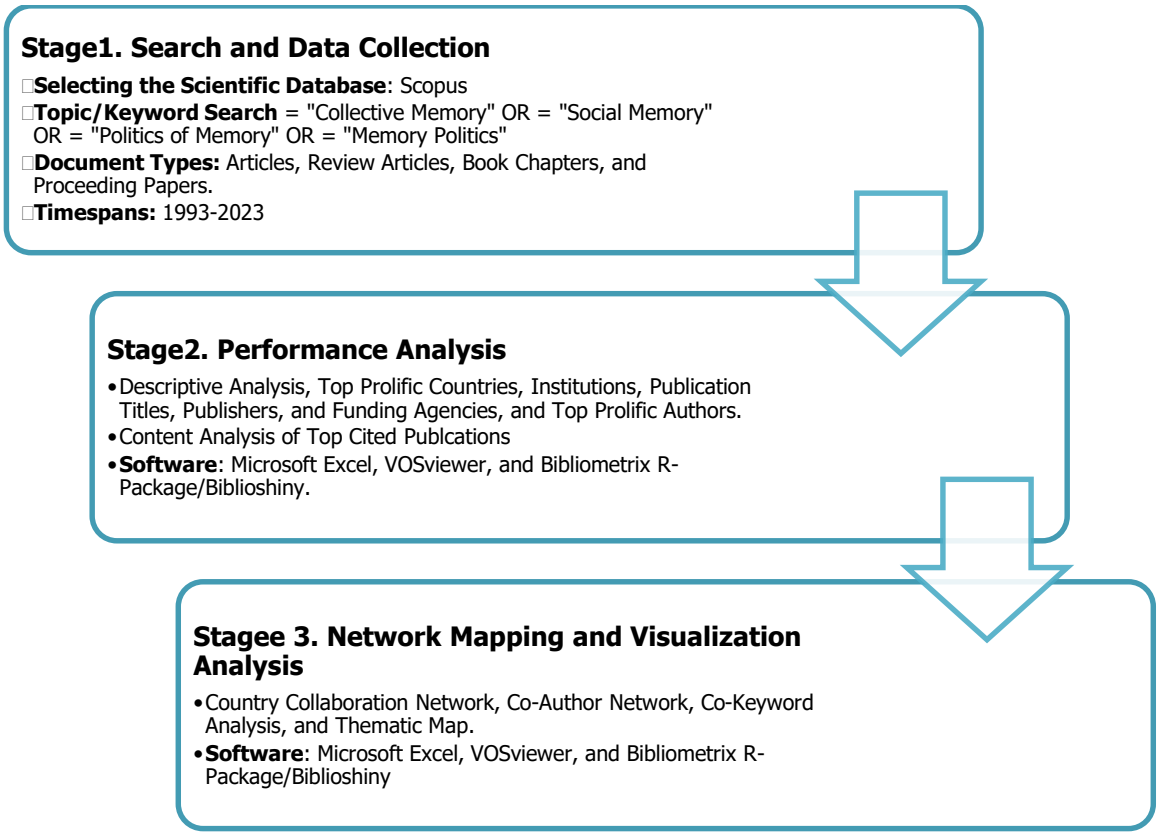

Figure 1 Research Methodology Phases

Stage 2. Performance analysis

In the 2nd stage, the performance analysis technique was conducted on the retrieved documents to examine the contributions of research constituents (Noyons, Moed, & Van Raan, 1999); (Donthu, Kumar, Mukherjee, Pandey, & Lim, 2021). Through that, the following can be explored: (1) publication output and progress; (2) most productive countries, academic and research institutions; (3) most productive journals and publishers; (4) most productive and influential authors; and (5) top-cited publications. Besides, the total citations (TC), the average total citations per document (ATC Per Doc.), and the Hirsch index (h-index) were also used to assess the impact and productivity of published documents, authors, and publications titles. In this stage and the subsequent phase, three software tools were used for managing, manipulating, and analyzing the extracted bibliometric data: Microsoft Excel, VOSviewer 1.6.20, and Bibliometrix R-package.

Stage 3. Network Mapping and Visualization Analysis

This stage utilizes science mapping techniques to look at the intellectual structure through bibliometric maps and goes in depth by analyzing the intellectual interaction and uncovering the structural connections among research constituents. Co-authorship and co-keyword analysis are examples of science mapping techniques and implemented in this study using VOSviewer (Donthu, Kumar, Mukherjee, Pandey, & Lim, 2021).

3 Results

3.1 General Descriptive Analysis

With an annual growth rate of 17.06 per cent, 10,431 research publications on "Collective Memory" have been released, which span 30 years of scientific output and resulting in more than 101,792 citations (on average 10 citations per document). Despite the research period spanning 30 years of scientific output, the number of publications has increased dramatically in the last seven years (2017-2023), representing more than 53 per cent of the total publications (TP). Concerning the citation trend, the 2006 publications were the most cited, followed by 2010 and 2008, with 9,088, 6,723, and 6,295 citations respectively (**Figure 2**). The trend of citations has fluctuated somewhat over 30 years but has seen an overall increase as well. Moreover, the falloff of citations does not mean that no excellent or poor contributions appeared, but that it always needs time for publications to be widely recognized and cited. A more descriptive analysis of the publication and citation structure is presented in **Table 1**.

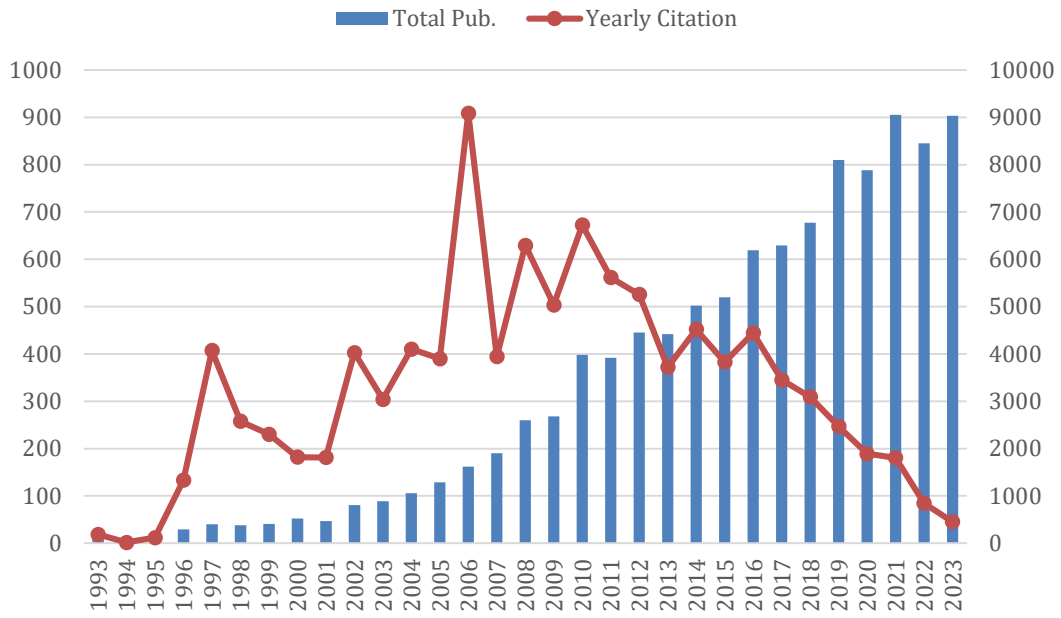

Figure 2 Times Cited and Publications Over Time

Table 1 Publications on Collective Memory and Citation Structure (1993-2023)

Year	TP	% of 10,426	TC
1993	8	0.08%	188
1994	5	0.05%	16
1995	11	0.11%	118
1996	29	0.28%	1,333
1997	40	0.38%	4,071
1998	38	0.36%	2,578
1999	41	0.39%	2,302

2000	52	0.50%	1,821
2001	47	0.45%	1,814
2002	81	0.78%	4,029
2003	89	0.85%	3,041
2004	106	1.02%	4,103
2005	129	1.24%	3,900
2006	162	1.55%	9,088
2007	190	1.82%	3,942
2008	260	2.49%	6,295
2009	268	2.57%	5,036
2010	398	3.82%	6,723
2011	392	3.76%	5,615
2012	445	4.27%	5,255
2013	442	4.24%	3,719
2014	502	4.81%	4,520
2015	520	4.99%	3,830
2016	619	5.93%	4,443
2017	629	6.03%	3,453
2018	677	6.49%	3,091
2019	810	7.77%	2,469
2020	788	7.55%	1,891
2021	905	8.68%	1,807
2022	845	8.10%	846
2023	903	8.66%	455
Total	**10,431**	**100.00%**	**101,792**

3.2 Top Contributors Channels

3.2.1 Top 10 Contributed Countries and Co-Country Collaboration

The United States has the highest contribution among the top 10 contributing countries with 2,340 publications, representing about 22 per cent of the TP (**Table 2**). The United Kingdom and Germany are the next on the list with 1,094 (10 per cent) and 520 (5 per cent) publications, respectively. The top 10 countries represent more than 60 per cent of the TP worldwide. The majority belong to Europe, followed by North America. In terms of TC, the United States also has the highest TC, followed by the United Kingdom and Canada. Despite Israel having the lowest TP, it has the highest average total citation per document (ATC Per Doc.) compared to other listed countries.

Table 2 Top 10 Prolific Countries on the Research of Collective Memory

Country	TP	% of 10,431	TC	ATC Per Doc.
United States	2340	22%	39,969	17
United Kingdom	1094	10%	15,906	15
Germany	520	5%	4,663	9
Russian Federation	412	4%	517	1
Spain	377	4%	1,767	5
Canada	345	3%	4,904	14
Poland	330	3%	1,155	4
France	326	3%	1,545	5
Australia	315	3%	3,275	10
Israel	273	3%	4,894	18

To investigate and analyze the country collaboration network, VOSviewer was utilized for generating clusters and analyzing the network (**Figure 3**). Countries with at least 10 publications were included, yielding 65 countries and 585 connections. The size of each node indicates the TP of each country, while lines represent co-occurrence between every two countries and appear in our case when countries co-occur at least once. Clusters represent sets of closely related countries, and countries that co-occur more tend to be closer to each other. Three clusters were generated using the LinLog/modularity normality, which is an optimization method for detecting community structure in networks. Although the clusters show the diversity of countries that co-occur together, there is some sort of categorization according to regional/geographic positioning, cultural identity, and language. Moreover, the overlaid country collaboration network (**Figure 4**) depicts that the Russian Federation, Ukraine, Czech Republic, Croatia, India, Turkey, and Lithuania are among the countries, which have recently contributed and collaborated with others in such research topic.

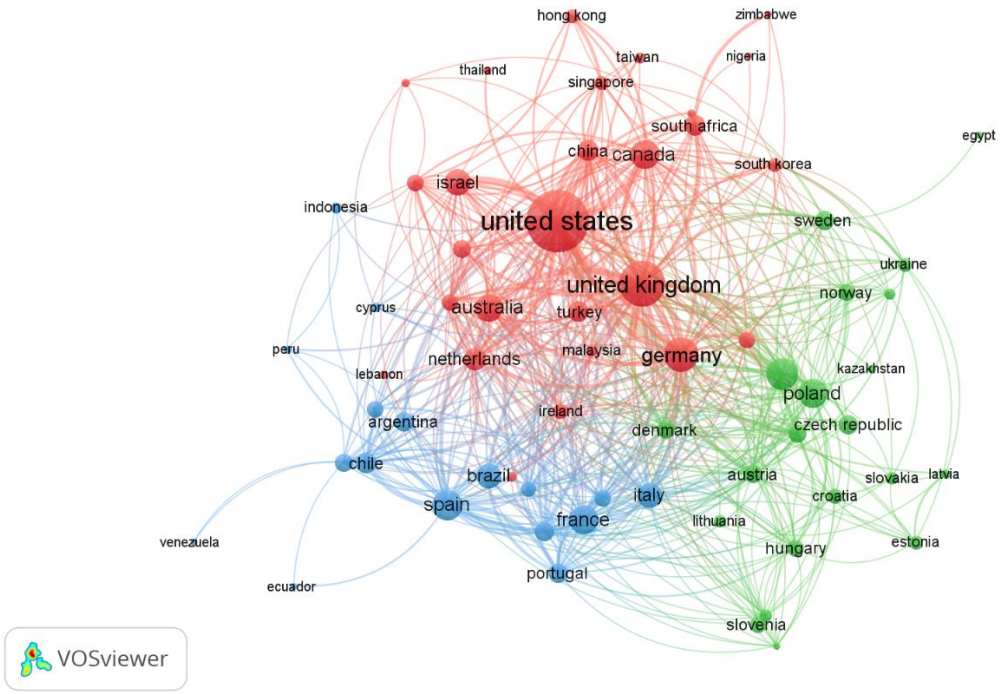

Figure 3 Country Collaboration Network

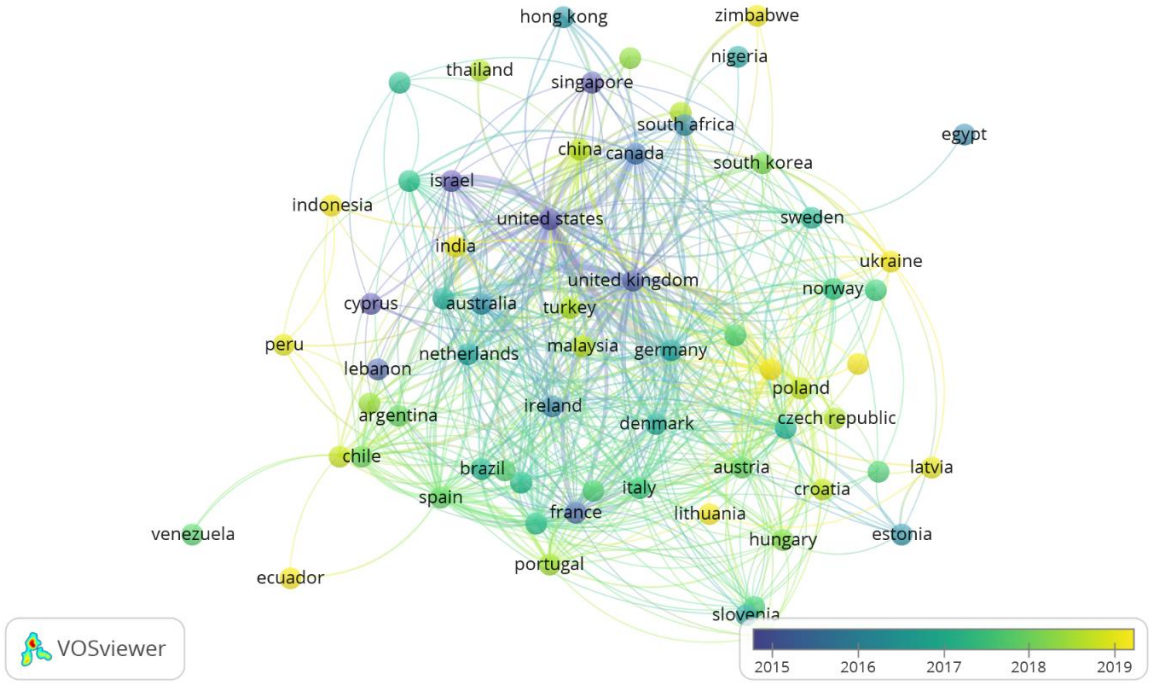

Figure 4 Overlaid Country Collaboration Network

3.2.2 Top 10 Productive Institution and Funding Agencies

Concerning the 10 most productive institutions in terms of TP, the results indicate that the Russian Academy of Sciences (Rusia) has contributed the highest number of articles with 80 publications, followed by the Hebrew University of Jerusalem (Israel) and the University of Warsaw (Poland) with 75

and 61 publications, respectively (**Table 3**). University of Michigan (United States) has received the highest number of citations with a total of 1,811, followed by Hebrew University of Jerusalem (Israel) and Tel Aviv University (Israel) with 1,498 and 1,405 citations, respectively. University of Michigan (United States) has the highest average citation per publication, followed by Tel Aviv University (Israel), and the University of Cambridge (United Kingdom). In terms of the h-index, the publications published by the University of Michigan also attract the highest h-Index, equal to 24, indicating that of the 50 documents considered for the h-index, 24 have been cited at least 24 times.

Table 3 Top 10 Academic and Research Institutions

Institution	TP	TC	H-Index
Russian Academy of Sciences	80	110	6
Hebrew University of Jerusalem	75	1,498	19
University of Warsaw	61	684	11
The National Scientific and Technical Research Council	60	215	8
University of Michigan	56	1,811	24
University of Oxford	54	455	11
University of Haifa	49	695	12
Tel Aviv University	48	1,405	16
University of São Paulo	47	93	5
University of Cambridge	47	1,125	11

3.2.3 Top 20 Publication Titles and Publishers

Although academic journals are considered the prime medium for discriminating scientific output and are worth researching in any scientific domain, the other source types were included in the analysis as they have a role in bringing and disseminating potentially useful and novel cumulative knowledge. The 10,431 publications in this search were published in distinct journals, various books, and conference proceedings. An overview of the top 20 publication titles with the highest rates of publications is presented in **Table 4**. They published 965 articles from 1993 to 2023, roughly accounting for 9 per cent of the TP, and resulting in more than 9,847 TC. The results also demonstrate that 4 journals of the top listed are owned by Sage (4), followed by Taylor & Francis (3), and Springer (2). Memory Studies (Sage) is at the top of the list, with the highest number of publications (247), followed by the Palgrave Macmillan Memory Studies (Springer) and Nationalities Papers (Cambridge University Press), with 196 and 62, respectively. In terms of TC, Memory

Studies (Sage) has the highest TC, followed by Memory (Taylor & Francis) and Archival Science (Springer). Examining the h-Index, Memory Studies (30) is in the lead, followed by Palgrave Macmillan Memory Studies (17) and Memory (16).

3.3 Top Prolific Authors

The 10 prolific authors who contributed to the collective memory research are identified as well (**Table 5**). The authors are ranked according to their TP, and in the case of a tie, TC is used. As shown, Hirst, W. has contributed the highest number of publications, with a total of 33 publications with 1,417 total citations by the scientific community. Schwartz, B; (L., 2021). are next on the list, with 19 and 18 publications, respectively. With 12 articles, Schwartz, B. is the most productive solo author, followed Wertsch, J.V with 10 out of 17 articles. In terms of citations, Hirst, W. is the most impactful and influential author as well, with 1,417 citations, followed by Wertsch, J.V., with 945 citations. Wertsch, J.V.'s publications are cited in the scientific community, with an average of 56 citations per publication, which is the highest among all listed authors, followed by Hirst, W., with 43 citations per publication, indicating the high impact and influence of both in the scientific community. In terms of the h-index, Hirst, W. has the highest local h-index, with 18, (Wertsch & Roediger, 2008); Schwartz, B., with 11 for each.

Table 4 Top 20 Publications Titles on the Research of Collective Memory

Publications Titles	Publisher	Source	TP	TC	2022 IF	H-Index
Memory Studies	Sage	Journal	247	3,470	1.1	30
Palgrave Macmillan Memory Studies	Springer	Book	196	945	-	17
Nationalities Papers	Cambridge University Press	Journal	62	552	1.2	14
Istoriya	STATE ACAD UNIV HUMANITIES		37	18	0.1	3
International Journal of Heritage Studies	TAYLOR & FRANCIS LTD		36	459	1.8	11
East European Politics and Societies	Sage		35	307	0.7	10
Memory	TAYLOR & FRANCIS LTD		33	1,332	2.1	16
History And Memory	INDIANA UNIV PRESS		31	320	0.9	10
Latin American Perspectives	Sage		29	157	0.7	7
Osteuropa	BWV-BERLINER WISSENSCHAFTS-VERLAG GMBH		28	53	0.2	3
Dialog So Vremenem	RUSSIAN SOC INTELLECTUAL HIST		28	5	0.2	1
Teksty Drugie	POLISH ACAD SCIENCES, INST LITERARY RESEARCH		27	36	<0.1	3
Milli Folklor	GELENEKSEL YAYINCILIK LTD STL		27	20	0.2	2
Media Culture and Society	Sage		23	438	3.3	13
History And Anthropology	TAYLOR & FRANCIS LTD		22	235	0.7	8
Nations And Nationalism	WILEY		22	136	2.2	7
Voprosy Filosofii	RUSSIAN ACAD SCIENCES-INST PHILOSOPHY		22	15	0.2	2
Archival Science	SPRINGER		21	1245	1.1	12
Journal of Educational Media Memory and Society	Berghahn		20	89	-	6
History of Education and Children's Literature	EDIZIONI UNIVERSITA MACERATA		19	15	0.1	2

Table 5 Top 10 Productive Authors

Author	Country	TP	SAP	TC	H-Index	Top Cited Paper (Year, TC)
Hirst, W.	United States	33	0	1,417	18	Remembering in conversations: The social sharing and reshaping of memories (2012, 262)
Schwartz, B.		19	12	685	11	Memory as a cultural system: Abraham Lincoln in World War II (1996, 224)
(L., 2021)		18	2	665	11	Collective memory: Conceptual foundations and theoretical approaches (2008, 218)
Fine, G.A.		18	6	206	9	Rumor, trust, and civil society: Collective memory and cultures of judgment (2007, 47)
Wertsch, J.V.		17	10	945	11	Collective memory: Conceptual foundations and theoretical approaches (2008, 218)
Johnson, C.W.		16	1	228	8	(Re)theorizing leisure, experience, and race (2009, 66)
Licata, L.	Belgium	15	1	249	10	When collective memories of victimhood fade: Generational evolution of intergroup attitudes and political aspirations in Belgium (2015, 44)
Schuman, H.	United States	14	0	575	9	Cohorts, chronology, and collective memories (2004, 130)
Meyers, O.	Israel	13	2	267	7	On Media Memory: Editors' Introduction (2011, 79)
Coman, A.	United States	12	1	381	8	Forgetting the unforgettable through conversation: Socially shared retrieval-induced forgetting of September 11 memories (2009, 121)

Figure 5a illustrates the collaboration network of contributed authors based on co-authorship analysis. Authors with a minimum of 5 publications were included, leading to a network of 126 authors out of 12,401. A node represents an author and lines connecting authors indicate that two authors are co-authors, at least once. The thicker the link, the greater the cooperation. There are 64 links between the 126 authors with a total link strength of 180 and the authors are divided into 89 clusters. The largest set of connected authors as shown consists of 25 authors, with 45 links, a total link strength of 130, and divided into 5 clusters (**Figure 5b**). Overall, this result indicates that many contributed researchers completed their research on collective memory individually and there is little collaboration with others in general.

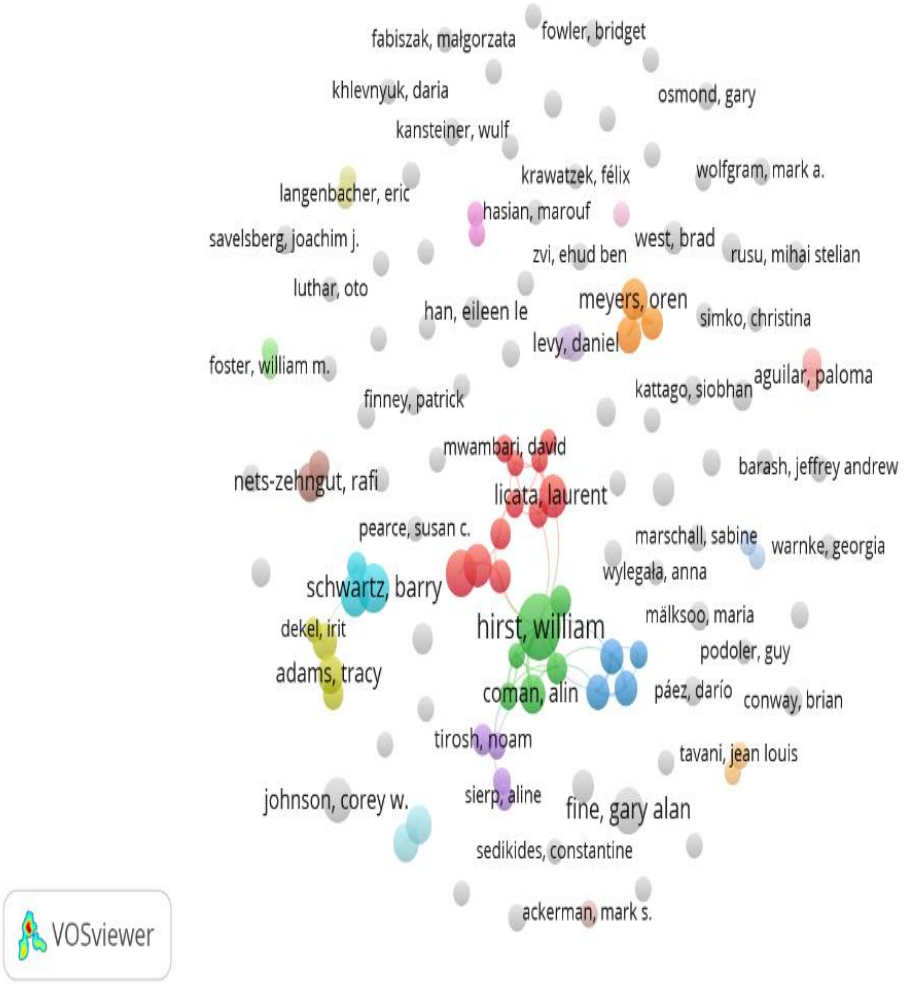

Figure 5a Co-Authorship Network

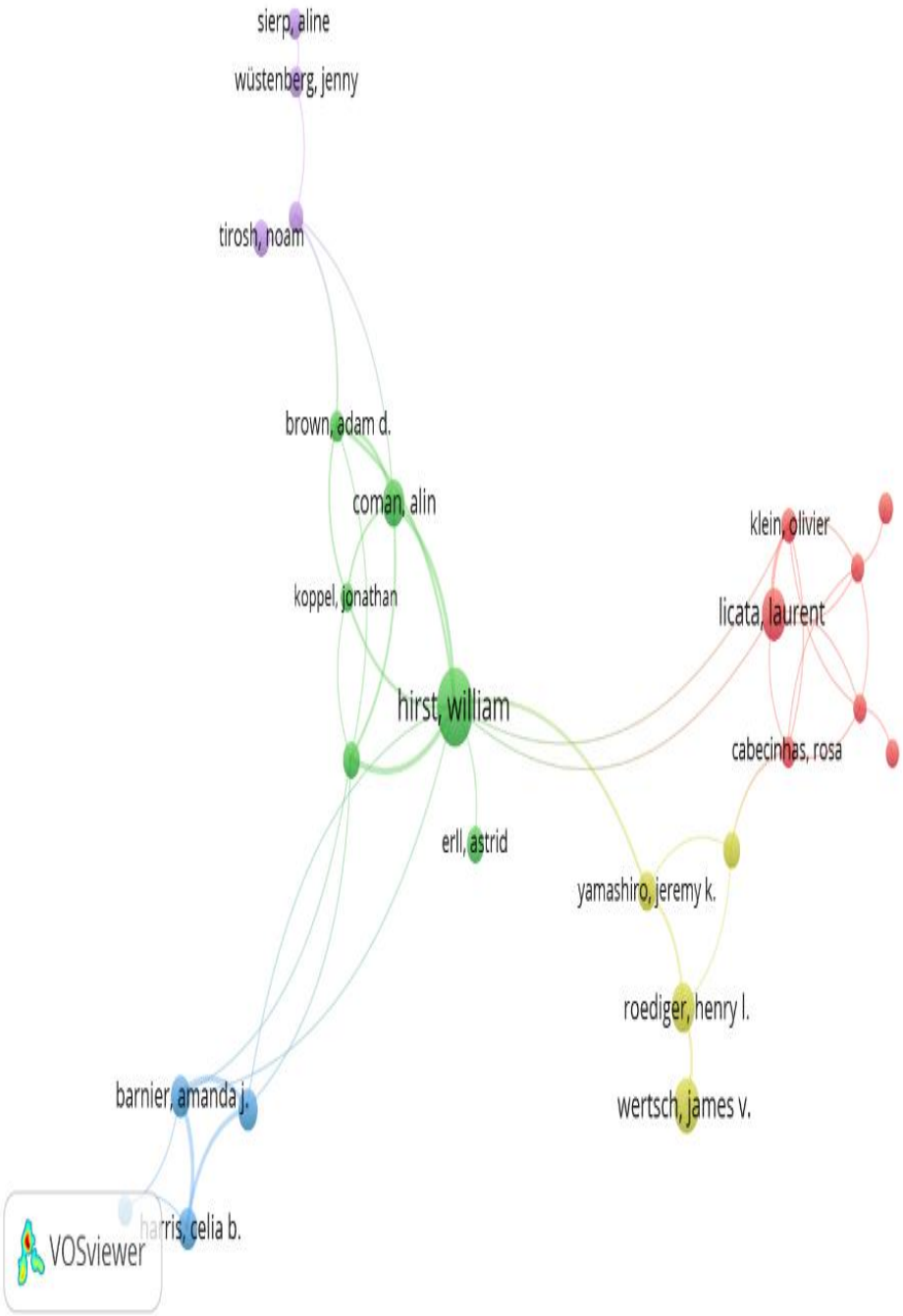

Figure 5b Co-Authorship Network of Connected Authors

Table 6 Top Cited Publications on the Research of Collective Memory

Article Title	Author(s)	Type	Pub. Year	Source Title	Publisher	TC
Culture and Cognition	(DiMaggio, 1997)	Article	1997	Annual Review of Sociology	Annual Reviews Inc.	1851
Social memory studies: From "Collective Memory" to the Historical Sociology of Mnemonic Practices	(Olick, J.K.; Robbins, J., 1998)		1998		Annual Reviews Inc.	1266
Finding meaning in memory: A methodological critique of collective memory studies	(Kansteiner, 2002)		2002	History and Theory	Wiley-Blackwell	855
Collective memory: The two cultures	(Olick, 1999)		1999	Sociological Theory	SAGE	707
Cultural constraints on grammar and cognition in Pirahã: Another look at the design features of human language	(Everett, 2005)	Review	2005	Current Anthropology	University of Chicago	596
AHR forum. Collective memory and cultural history: Problems of method	(Confino, 1997)		1997	American Historical Review	Oxford University Press	559
Memory Unbound: The Holocaust and the Formation of Cosmopolitan Memory	(Levy & Sznaider, 2002)	Article	2002	European Journal of Social Theory	SAGE	546
The Discursive Construction of National Identities	(De Cillia, Reisigl, & Wodak, 1999).		1999	Discourse and Society	SAGE	521
Attitudes And Attitude Change	(Bohner & Dickel, 2011)		2011	Annual Review of Psychology	Annual Reviews Inc.	510
Sociopsychological Foundations of Intractable Conflicts	(Bar-Tal, 2007)		2007	American Behavioral Scientist	SAGE	461

3.4 Core Collective Memory Research Topics and Hotspots

3.4.1 Content Analysis of Top 10 Cited Publications

The contents of the most cited papers are significant in the academic community, as they reflect the impact of research in a particular research topic. By extracting and analyzing the most cited publications on collective memory research as a reflection of the current state of research, it is possible to (1) identify gaps that need to be filled in future research and (2) understand the implications for future research based on the contents of such most cited publications.

Consequently, the most cited collective memory publications according to the TC obtained in this study (**Table 6**). These papers received more than 7,872 citations, accounting for 7.7 per cent of the TC. The majority are article papers (80%), and the rest are in the form of review articles (20%). Four publications were published by SAGE, followed by Annual Reviews Inc. (3), and the rest were published by Wiley-Blackwell, University of Chicago, and Oxford University Press. These top 10 cited publications confirm the interdisciplinary nature of the collective memory concept, reflecting its complex nature and multi-topics and forms. Overall, the synthesis of these topics can be grouped under five different themes that the literature covered, which will be elaborated on below:

In society's complex web, collective memory plays a key role in how we see our past, define who we are today, and decide where we are headed. The analysis starts with the early ideas of Maurice Halbwachs about social and collective memory and moves on to the detailed evaluations and new methods suggested by modern scholars. It peels back how collective memories are built, kept alive, and sometimes challenged, highlighting how institutions, media, and cultural activities play a part in this. By going through the history of memory studies, pointing out what is lacking in current methods, and discussing memory's impact on deep-rooted conflicts and the making of national identities, the review touches on the important discussions and new directions in this area.

Moving from the study of memory in history to the deep-seated conflicts in society, this review provides a thorough look at the many sides of collective memory. Throughout this exploration, the scholarly work highlights the need for a carefully considered view of collective memory. It calls for a way of thinking that acknowledges its influence in creating what we share as a reality and in our search for meaning in our collective history.

Theme (1). Theoretical Foundations

Maurice Halbwachs foundational work in the different theories of memory studies is an integral part of any research. His work focuses on the essential role of social frameworks in shaping how groups remember and interpret their past. Additionally, he distinguishes between social and collective memories.

On one hand, social memory is concerned with the processes through which people remember, commemorate, and reconstruct past events.

Additionally, these processes are often mediated through rituals, narratives, monuments, and other cultural practices. These processes dictate how history, traditions, and experiences are perceived and understood in the collective memory of a group. Consequently, forming and re-creating bonds between group members, and exclusion mechanisms for those who do not belong. Furthermore, social memory is not just about recalling factual historical events but also involves the emotional and interpretative aspects of remembering, which contribute to the social fabric and identity of a group.

On the other hand, although collective memory is interchangeably used with social memory, it denotes the shared pool of knowledge and information in the collective consciousness of a group or society. The main point of difference is the scope of interest in each of these two concepts. Social memory focuses on the processes through which collective memory is formed among group members, with a special focus on the interactions between different actors, and the means utilized through these processes. While collective memory focuses on what is remembered. Its essence is the shared memory of a society or a group of people. It is often mistaken for an aggregation of individual memories, which is not accurate. Since memory is a complex emerging system, it should be viewed as a holistic phenomenon whose whole is bigger than the sum of its parts. Therefore, collective memory is shaped through social interactions and cultural practices (Olick, J.K.; Robbins, J., 1998).

Further expanding on this foundation, Paul (DiMaggio, 1997) work delves into the intricate relationship between culture and cognition. His work explores the relationship between culture and cognition, drawing on recent research in cognitive psychology and social cognition. The work addresses several research questions, including how culture is fragmented and how individuals experience and interpret culture through disparate bits of information and schematic structures. He emphasizes the divergence in literature on the study of culture. Although enriching the field but creating gaps between different theories and attempts. He examines the roles of institutions and agencies in shaping culture and explores the implications of this research for the study of identity and collective memory. In terms of collective memory, it is defined as “the outcome of processes affecting, respectively, the information to which individuals have access, the schemata by which people understand the past, and the external symbols or messages that prime these schemata.” Moreover, DiMaggio categories work on collective memory into two main lines of thought. The first is dedicated to the macro-level analysis of people’s comprehension of their past and history, and the public opinion regarding an event or a figure known to the public. Despite the popularity of this realm of research, the emerging trend is related to the intertwined relationship between the individual and the collective.

The article is crucial in setting the theoretical foundations of collective memory and identifying the key role that institutions play in carrying and shaping collective memory. Institutions are considered vessels that carry culture,

through which the processes of diffusion, activation, and selection among available schemata. By examining the ways in which individuals experience and interpret cultural information, we can gain insights into the formation of identity and the construction of collective memory.

Theme (2). Collective Memory and Identity

The study of collective memory is closely related to the construction of the 20th nation-state. The process of building national identities is connected to how societies monumentalize historical events, traditions, and figures. It is a dynamic mechanism that amplifies the importance of unity and distinctiveness in any society.

Subsequently, it is associated with the effects of traumatic events on collective memory and shared identity formulation. (Levy & Sznaider, 2002) built on these theoretical ideas to examine how the Holocaust, as a traumatic event, shaped the modern European collective memory. The research investigates how cosmopolitan memory emerged in a globalized context to transcend time and space. Cosmopolitan memory goes beyond national and individual concerns, showing shared experiences and ideals.

While some hold that globalization erodes the sense of individuality and authenticity, turning societies into one small village, the work studies Holocaust memory in Germany, Israel, and the USA to prove how local memories can shift into a global shared memory. The study uses historical records, media, and academic literature to show how cosmopolitan memory has come up alongside national memories. This shift, in the Holocaust, to a cosmopolitan memory was due to three main reasons: its portrayal as a historical event through media, growing academic interest, and its representation in popular culture, notably the TV show “Holocaust” and the film “Schindler’s List”. These media events made the Holocaust a symbol of the fight between good and evil and helped create a universal memory of it.

Thus, media played a pivotal role in forming and transforming the individual experiences of the Holocaust into a global cosmopolitan memory, where the new identity, that of the 20th century, required new symbols, ideals, and political values. The transition from local media events to cosmopolitan memory, hence identity, is the result of the Holocaust’s aftermath. In conclusion, cosmopolitan memory arises in response to globalization, creating a shared identity that goes beyond national boundaries. It's a new kind of memory that includes the stories of others, offering a way to see history from a more inclusive, global viewpoint.

Theme (3). Methodological Approaches and Critiques

This theme inspects the different methodological challenges in the studies of collective memory. Wulf (Kansteiner, 2002) criticizes the limited scope of collective memory studies, where scholars focus on events in themselves, ignoring how the group thinks about these events. Eliminating the contexts that shaped, and influenced these specific events, times, and places. This leads to a

gap between what happened and how it is perceived by the distinct group who lived that history. Hence, studies miss understanding how distinct groups think about their history. (Kansteiner, 2002) also questions the habit of using psychological terms in a way that oversimplifies collective memory, making it seem just like personal memory. He believes this overlooks the big role that society and culture play in forming and keeping collective memory alive.

To overcome this issue, the research suggests thinking about the wider social and cultural settings in which memories are made and shared. It is not only the memory of events that matters but also how these events are realized and presented by the people. Additionally, it calls for a change in how collective memory is studied, where research methods need to comprehend and manage the social dynamics of memories. By combining the study of collective memory, historical events, and social memory, the context and dynamics behind these events, scholars will get a fuller picture of what and how people remember.

Another methodological critique is that between adopting an individualist or collectivist approach when studying collective memory. This is discussed in Jeffrey K. (Olick, 1999), where he calls for an integrated approach that appreciates both the psychological and socio-cultural aspects of memory. This is due to the nature of memory itself, where it encompasses both individual memories and larger, shared experiences like ceremonies, shared stories, and cultural symbols. These can take many forms, such as personal reflections, spoken histories, traditions, and cultural expressions through language, art, and architecture.

Consequently, memory is understood according to these two ways. The first one focuses on personal memories within a group setting, considering how our brains and thoughts work. This view sometimes misses how technology for remembering and social influences shape our memories. The other way emphasizes how society and culture create shared memories, which might not fully consider how our minds play a role in this process.

Olick suggests combining the two approaches to grasp different perspectives on memory, especially in the study of traumatic events. Additionally, bridging the gap between the two approaches occurs when employing concepts from other realms of science, such as sociology and psychology. In short, memory is a complex phenomenon that extends far beyond its beholders, individual, group and contextual components should be present in the minds of scholars. He concludes that understanding collective memory well means bringing together these different perspectives. This is important for recognizing all the ways memories are formed and maintained within and across communities.

Theme (4). Memory and Language

The influence of cultural practices and technological changes on collective memory is another critical theme explored in the study. Daniel L. (Everett, 2005) extensive fieldwork among the Pirahã people of Amazonas, Brazil. Due

to the unique nature and structure of the language, it stands as proof that language can and does influence culture in any society, and vice versa. The Pirahã language's distinct features—such as the lack of recursion, a counting system, and specific phonological patterns—reflect the Pirahã culture's focus on the immediacy of experience, which prioritizes concrete, present experiences over abstract concepts or discussions of the past and future. Additionally, the Pirahã language's simplified pronoun system and the absence of a perfect tense further underscore the influence of Pirahã culture on its linguistic structure.

The nature of the language challenges Chomsky's notion of universal grammar. Instead, he suggests that language diversity and variability are more closely tied to cultural contexts than previously recognized. Additionally, the work underscores the importance of integrating the study of language and culture to gain insights into human cognition and the variability of linguistic structures. The analysis advocates for a more nuanced appreciation of how cultural values and practices shape linguistic features, contributing to the broader discussion on linguistic relativity and the limits of linguistic universals.

Theme (5). Socio-Political Contexts

Lastly, Daniel (Bar-Tal, 2007) study investigates how deep-rooted conflicts continue for a long time because of certain beliefs and feelings within societies. He talks about how societies in long-lasting conflicts, like in Sri Lanka and the Middle East, build a set of psychological tools to deal with the stress and challenges these conflicts bring. This set includes shared memories, beliefs about the conflict, and common feelings like fear and anger, which help society stick together and keep fighting.

Bar-Tal explains that these long conflicts remain because they are seen as never-ending and require a lot from those involved. The story a society talks about the conflict makes their group look good and the other side bad, supporting their reason to keep fighting. This story, along with shared beliefs and feelings, becomes a big part of society's identity. However, Bar-Tal points out that while these tools help societies handle conflict at first, they also make the conflict last longer by making people resistant to change. He suggests that to solve these conflicts, we need to change the way societies remember the conflict, see the conflict, and feel about the conflict. This can help stop the cycle of violence and start the path to peace.

To sum up, analyzing the content of the top cited publications in the "collective memory" research gives us insights into the state of the field of research and uncovers the gaps that can be discussed in future research considering the changing world, Especially the ongoing wars and conflicts among multiple countries and plans of some of them to occupy places/regions by imposing their identity. More discussions will be presented in the next section.

3.4.2 Author Keyword Analysis

Applying keyword analysis in VOSviewer can help to explore the hotspot

topics in collective memory research in depth. A total of 19,593 author keywords were identified, and the top 10 author keywords in terms of total number of occurrences in the extracted publications are presented in **Table 7**. They reflect a mix of terms that reflect the different forms of collective memory, such as social memory, politics of memory, cultural memory, organizational memory, and historical memory. In addition to related concepts to collective memory, such as identity, history, heritage, oral history. The following five keywords have the highest number of occurrences and link strength as well, where link strength indicates the total number of links between a keyword and other keywords: Collective Memory (2,359, 4,811), Memory (993, 2,495), Social Memory (565, 1,078), Politics of Memory (535, 1,238), and Identity (294, 891).

Table 7 Top 10 Author Keywords for Publications on Collective Memory

Keyword	# of Occurrences	Link Strength
Collective Memory	2,359	4,811
Memory	993	2,495
Social Memory	565	1,078
Politics of Memory	535	1,238
Identity	294	891
History	229	730
Commemorations	197	568
Cultural Memory	176	439
Narrative(s)	156	495
National Identity	141	399

The keyword co-occurrence network is also depicted in **Figure 6**. Before generating the map, a thesaurus was constructed to merge relevant keywords spelt differently in American, British English or other languages. Plural and singular terms and conceptually similar terms were merged. Then keywords with at least 10 occurrences were included, leading to 400 keywords and 8,108 links. The size of each circle indicates the number of publications that have the corresponding term in their author keywords. Lines represent co-occurrence between two keywords and appear when they co-occur at least once. Colors reflect the categorization of keywords into clusters. As shown, there are five clusters, but they largely overlap. Cluster 1 (green) has “collective memory”, “cultural memory”, “national identity”, “oral history,” “social movement(s)”, “cultural heritage,” and “autobiographical memory” as its core. In which the structural elements of the field are present. For years, scholars used some of these concepts interchangeably in their work. For instance, many confuse collective and social memory, or see that collective memory might contradict individual and autobiographical memory. Cluster 2 (red) has “memory”, “social memory,” “identity”, “history”, “narrative(s)”, and “trauma” as its core. This

cluster projects the main essence of collective memory; that is its roots in the past. Keywords represent different interpretations of history. Additionally, it comprises the communicative means by which memory is narrated. An example would be "(social) media", "museum(s)", and "art". Moreover, more weight is given to traumatic and violent events, and their repercussions, such as "diaspora."

Cluster 3 (blue) has "politics of memory", "commemorations", "nationalism", "holocaust", and "historical memory" as its core. This cluster and the following ones are more leaning towards sub-ideas that were associated with collective memory studies over the years. However, the scope, in terms of geography and topics, changes in each of them. For instance, this cluster sets Europe at its core. The keywords vary between the key events of 20th century Europe, such as WWII, European Union, and USSR. It mainly tackles topics related to the "holocaust, nationalism, communism, populism, immigration, democracy, and the cold war."

Cluster 4 (yellow) has "transitional justice", "human rights", "genocide", "reconciliation", "memorialization", and "post-memory" as its core. This cluster follows the previous one in the main line, but deviates to geographical areas around Europe, such as Latin America, Asia, and non-EU countries in Europe. It might be related to the post-WWII era, where the cold war and proxy war in Africa, Asia, and Latin America.

Cluster 5 (purple) has "racism," "colonialism", "memorials", "monuments", and "resistance" as its core. That in turn reveals the various forms of collective memory, as a wide, complex, and multidisciplinary concept. Finally, this cluster is more focused on post-colonial residuals of collective memory. This can be the apartheid in South Africa, or democratization processes after decolonialization resistance in different parts of Africa and the world.

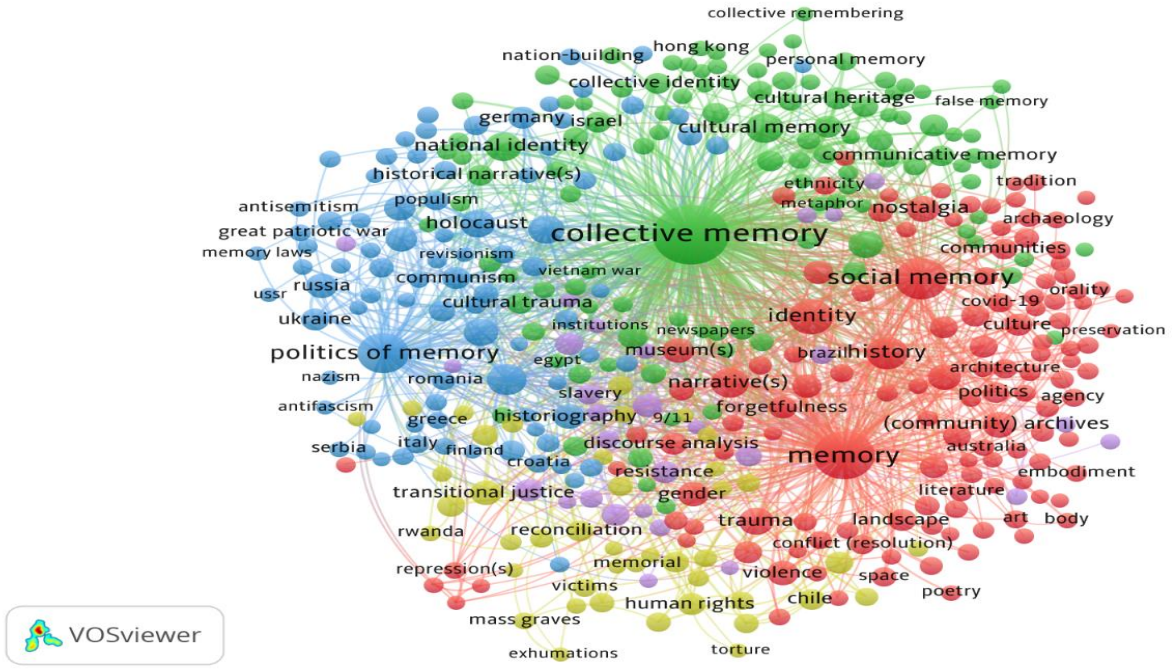

Figure 6 Author keyword co-occurrence network

Additionally, **Figure 7** shows an overlaid co-occurrence network of author keywords to reveal the temporal distribution of keywords in different groups. The color depth variation is based on the average publication year of the keyword. The darker the color, the earlier the publication year, while lighter colors represent more recent publications. The results reveal that collective memory with an average publication year 2017 is the most reflected keyword with 2,359 occurrences, 394 links to other keywords, and a total link strength of 3,848. Memory and social memory are the next on the list. These three top keywords are in the center of the network, along with the concept of "memory of politics" with an average publication year 2019.

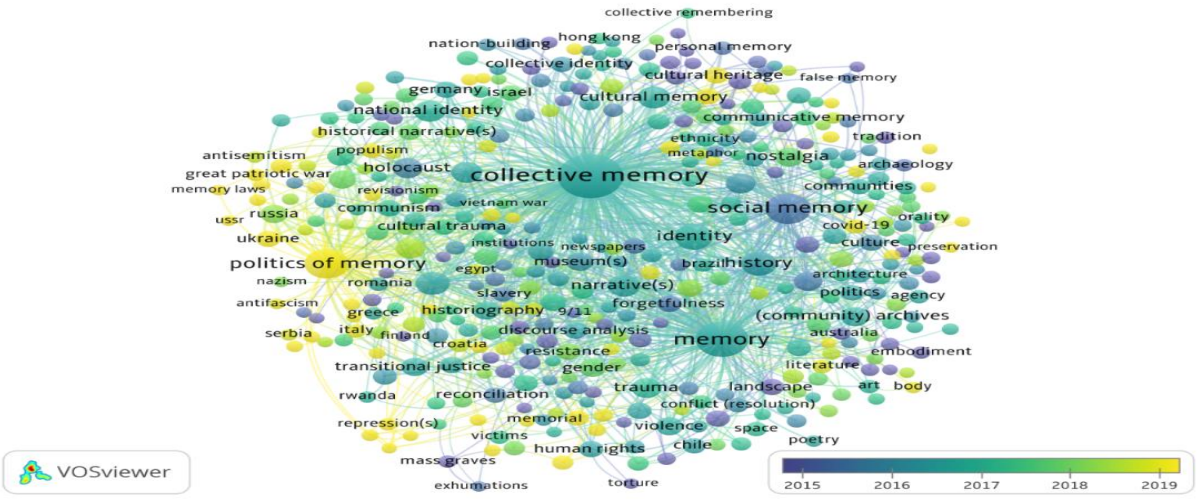

Figure 7 Overlaid author keyword co-occurrence network

Table 8 Collective Memory hotspots (based on avg. pub. year)

Keyword/Term	Total Link Strength (Links)	Occurrences	Avg. Pub. Year	Avg. Norm. Citations
Pandemic	29(21)	11	2022	3
Covid-19	62(37)	30	2022	4
Siberia	49(22)	10	2021	0
Memory Laws	21(12)	11	2021	1
Solidarity	32(26)	13	2021	2
Populism	66(40)	31	2021	4
Settler Colonialism	26(21)	12	2021	1
Kalmyks	56(16)	11	2021	1
Collective Trauma	31(21)	18	2021	4
Foreign policy	38(25)	14	2021	1
Historical policy	35(24)	13	2020	0
Armed conflict	51(31)	20	2020	0
Rhetorical History	21(14)	10	2020	10
War Memory	21(15)	11	2020	1
Reparation(s)	45(27)	16	2020	1
Union of Soviet Socialist Republics (USSR)	43(31)	10	2020	0
Memory Policy	30(21)	15	2020	1
Historical Politics	43(25)	15	2020	0
Post-Memory	85(60)	44	2020	1
Deportation	58(18)	14	2020	1

Based on the keywords co-occurrence analysis of the bibliometric knowledge maps, **Table 8** lists the potential emerging and hotspot topics in the research of collective memory. It illustrates various features of the keywords, such as the total link strength, number of occurrences, and average normalized citations. The findings indicate that Pandemic is at the top of the list based on the average publication year (2022) with a total link strength of (29) and several occurrences of (11). If the number of occurrences, link strength, and very recent average publication years are low, this indicates that the area should be a critical focus for future research avenues, followed by Covid-19 (2022, 62, 30). This makes sense as the world's attention shifted to the pandemic after 2020. How we

understood it, its spread, symptoms, precautions, and the aftermath were all practices and reflection of collective memory, may it be national, regional, and international. Siberia (2021, 49, 10), Memory laws (2021, 21, 11), Solidarity (2021, 32, 13), and Populism (2021, 66, 31). 2021 can be seen as an eventfull year in world politics, with populism and right-wing parties rising in Europe, while left-wing in Larin America, the USA elected Donald Trump as president. Meanwhile, in Siberia, there were unforeseen wildfires that raised the state of emergency and enlarged the memory connected to climate change. The remaining keywords are logical to come with collective memory studies, where ties are consolidated to the past in terms like Collective Trauma, or War Memory. Furthermore, some contemporary issues rise to the surface, such as Siberia's explained above, or the ethnic separation that the Kalmyks suffer under Russia, especially during the invasion of Ukraine.

Table 9 Collective Memory hotspots (based on avg. norm. citations)

Keyword/Term	Total Link Strength (Links)	Occurrences	Avg. Pub. Year	Avg. Norm. Citations
Rhetorical History	21(14)	10	2020	10
Resilience	25(15)	21	2013	9
Adaptation	21(14)	14	2016	9
Organizational Memory	10(7)	10	2014	7
Social Identity	63(29)	31	2016	4
Covid-19	62(37)	30	2022	4
Collective Trauma	31(21)	18	2021	4
Populism	66(40)	31	2021	4
Storytelling	42(32)	17	2017	4
Social Contagion	20(7)	10	2014	3
Institutions	31(25)	12	2015	3
Social Media	121(66)	50	2019	3
Emotions	126(69)	53	2018	3
Internet	33(24)	15	2015	3
Dark Tourism	44(32)	18	2019	3
Hegemony	26(20)	13	2016	3
Pandemic	29(21)	11	2022	3
Counter-Memory	60(39)	20	2018	3
Social Change	29(19)	13	2018	3
Temporality	75(51)	28	2018	3

The areas that are highly cited in recent research on collective memory are

presented in **Table 9**. As shown Rhetorical History is at the top of the list based on average publication year (2020) with a total link strength of (21) and a number of occurrences of (10). Followed by Resilience (2013, 25, 21), Adaptation (2016, 21, 14), and Organizational Memory (2014, 10, 10). Among the 20 list keywords, the following keywords are the most recent and have high average citations: Covid-19 (2022, 62, 30), Pandemic (2022, 29, 11), Collective Trauma (2021, 31, 18), Populism (2021, 66, 31), Rhetorical History (2020, 21, 10), and Social Media (2019, 121, 50).

3.5 Emerging Trends in Collective Memory Research

To deepen the analysis of the themes and investigate the conceptual structure of the topic, the thematic map was explored through Bibliometrix R-package. This map combines performance analysis and scientific mapping tools to detect and visualize conceptual subdomains/themes (Mühl & Oliveira, 2022). The authors' keywords were used to generate the map, resulting in five clusters in the thematic map (**Figure 8**), that contextualize and understand the themes in the research field. The thematic map shows that the pink cluster (collective memory, cultural memory, national identity, oral history, and social movement) is sandwiched between basic and emerging/declining themes. A look into the keywords does refer to the crucial status of each in understanding collective memory studies. It is also evident that there is a growing interest in intangible sources of culture and memory such as oral history. Accordingly, this necessitates new tools that capture and transcend traditional forms of memory formation and transmission.

The purple cluster (politics of memory, nationalism, holocaust, historical memory, and World War II) is sandwiched between basic and motor themes. It includes themes that are basic, well-developed, and important keywords in scientific literature on the research of collective memory. While these keywords represent the foundation of any collective memory study, they also affect and direct scholarly work in the field. At a glance, it is noted that these topics appeared in the top keyword clusters in Figure 7. It is evident that the memory of the nation-state building in Europe still persists. It can also indicate the wave of decolonization that took place around the world after the second world war. Moreover, the event of the holocaust can be seen as a changing point in history. It is a repeated theme across this research, and in the majority of the scholarly work reviewed.

In addition to this, the blue cluster (memory, identity, history, narrative, and trauma) represents a motor theme. They are well-developed and important research field structuring themes. These topics dictate, to an extent, the current and future directions of the field of collective memory studies. They revolve around narrating historical events from different perspectives. Furthermore, traumatic events play a role in collective memory studies. With focusing on specific events comes the methodological disagreement mentioned in the content analysis.

The orange cluster (commemorations, heritage, transitional justice, museum, and racism) - represents a niche theme. They are very specialized and peripheral themes. These are the topics that receive the least interest in scholarly work. The last cluster -green cluster- represents the emerging or declining themes including (social memory, nostalgia, and ritual). It either indicates interest in, or abandonment of the topics. However, we expect that it represents the growing attention towards apprehending the complexity of memory events through studying social memory. This means that different actors, processes, and other factors related to that event. Remembering as a means and end is tied to ritual and nostalgia. Especially focusing on how people remember their past, and what means they used to do so.

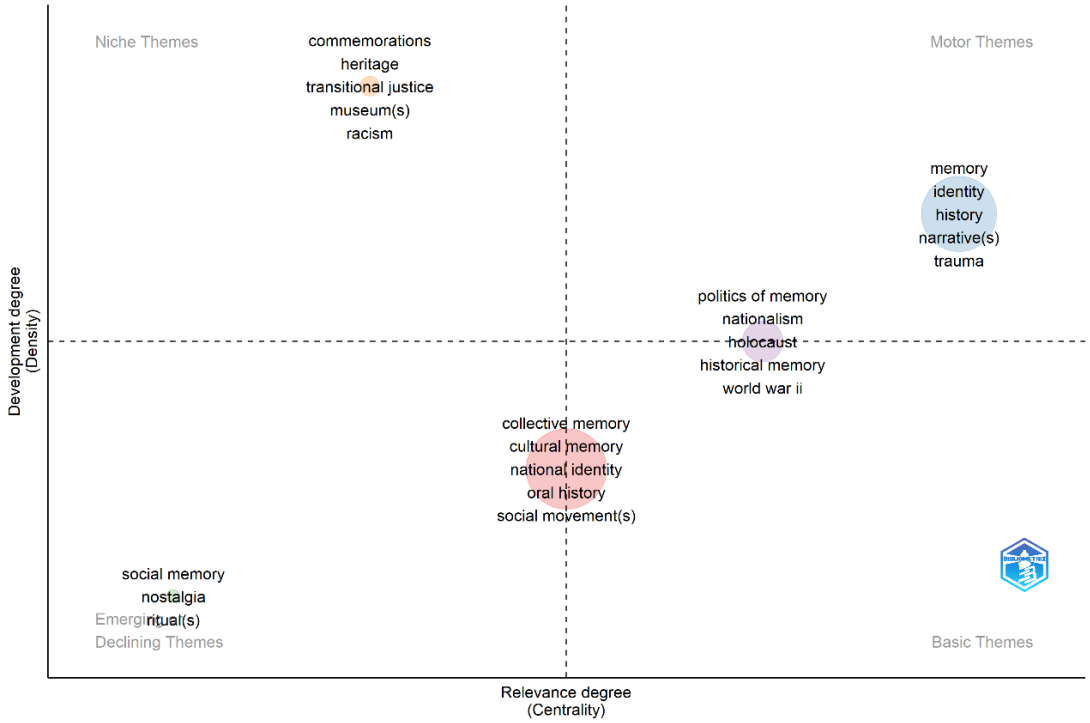

Figure 8 Thematic map based on authors' keywords

4. Discussion and Conclusions

This research concludes that memory is a complex dynamic emerging system. As such, it comprises different actors and agents that contextualize and form it. It also entails the process by which those actors interact, and the emerging outcome of these interactions. Memory studies are about what to remember and how to remember it. And memory is remembering. Consequently, contested narratives take place to lead the story of what took place, when, and how. Hence, the tight relationship between memory and politics. On the one hand, politics is about influence and exercising one's power. While on the other hand, memory is contested upon, making it the perfect tool for political power and leverage.

This study's analysis is significant as it adds to academic understanding, giving indispensable insights into the complexities of collective memory research and discussing the trendy and hotspot topics for further research. It also showed that the top-cited articles revealed the highly complex nature of collective memory research. However, there has been a little shift in the research streams over the years. Therefore, by analyzing the authors' keywords, this study suggests certain avenues as future pathways for further research, such as "Pandemic," "Memory Law," "Populism," "Rhetorical History," "Resilience," "Organizational Memory," "Collective Trauma," and "Social Media".

Moreover, reviewing previous work indicates how traumatic events play a crucial role in the cosmopolitan memory and the local collective ones. One of which is the pandemic. While the pandemic's aftermath is one that has not yet ended in our lives, we see that many more contributions can be made in this regard. Studying our memory after the pandemic can lead the way to understanding some of our future actions and responses.

One important source of this understanding collective memory is social media. As the world faces uncontrollable advancements in information and communication technologies, digital data presents big data sources of information. It also emphasizes that exploring the role of modern technologies and social media networks is crucial in forming the "collective memory" phenomenon. In other words, with the widespread use of modern technologies and social media networks, a new form of collective memory may emerge. Hence, the need to use new techniques and approaches in tracing memory online. We suggest incorporating computations social science techniques such as Machine Learning, and Natural Language Processing in studying collective memory. Additionally, some work is concerned with what is called an organizational memory. As knowledge builds up from past experiences, it forms the memory of an organization. It becomes a vital tool for understanding the dynamics of the work in the organization, and a steering wheel for decision-making.

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Last but not least, a man's memory is mysterious and intriguing, hence the scientific obsession with understanding the complex dynamics of this phenomenon. And while working on archiving how science remembers

remembering, we could only remember one man: Prof. Hazem Hosny. A few months ago, the world lost a great man, mentor, and philosopher. This research is our tribute to the man who led our way to who we are today. We want to be remembered for this scholarly contribution in the same way it reminds us of you.

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