



# Current Status and Implications of International Higher Education Governance Research

## --Based on the Analysis of Web of Science Literature Data for the Past Five Years

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### ABSTRACT

Governance in higher education is a central part of modern university systems and is also a hot topic of research in the international higher education arena, with the main aim of promoting the healthy development of higher education. In order to understand the latest developments and grasp the frontiers of research that can provide reference for China's higher education governance, the VOSviewer bibliometric software was used to analyse 692 papers on higher education governance research included in the core collection of Web of Science databases in the past five years, and to map out the knowledge map of international higher education governance research. The results show that Western countries are at the forefront of this research area, and that international research on higher education governance focuses on three areas: governance policy, innovation and challenges, and responsibility and autonomy. Recommendations for the transformation of higher education governance are ultimately presented.

**Keywords:** Higher education governance; knowledge mapping; visual analytics;

## 1. INTRODUCTION

Higher education governance modernization is an essential component of national education governance modernization, and the degree and quality of its governance capability have a direct impact on the process of realizing national education governance modernization. The modernization of higher education governance is a process of value co-creation and behavioral synergy among various governance interest areas. Modernization of higher education governance capacity is one of the two main parts of higher education governance modernization, a precondition and guarantee for the modernization of the higher education governance system, and a crucial means to enhance higher education overall quality. [5]. The transition from conventional education administration to contemporary education governance has changed the way participating subjects interact, the network structure, power allocation, and resource supply. The breakdown of the actor's authority while keeping its consequences has

revolutionized "governance," allowing for greater engagement and interaction with traditional management behavior related to power structures.

Since international research on higher education governance has been constantly updated in recent years, it is important to keep abreast of the latest developments in international research and grasp the frontiers of international research. To provide new research perspectives for national, government and university research on higher education governance. This study relies on the VOSviewer bibliometric analysis software. The key elements of international research on higher education governance in the past five years are analyzed in order to provide references for China on higher education governance.

## 2. RESEARCH METHODS

In this study, VOSviewer is chosen as the analytical tool to analyze the research hotspots in the international

field of higher education governance. The tool combines visualization, scientometrics, and other research methods to map the vast amount of literature data in the field and to show the overall situation, development and structural characteristics of the frontier areas of the discipline. In this study, the Web of Science core database was searched for the last five years for the topic: Higher Education Governance and the period of literature screening was 2017-2021. 2036 records were obtained, and book reviews and conference proceedings were removed through a refined search; the category chosen was EDUCATION EDUCATIONAL. A total of 692 records were obtained for analysis through the above method, including titles, authors, abstracts, keywords, etc., to analyze research hotspots and development trends.

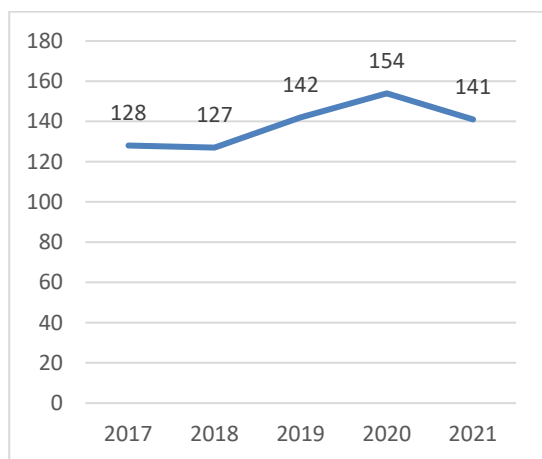
By focusing on international higher education governance research hotspots and development trends, the data were analyzed using a combination of scientific knowledge mapping and content analysis [2]. Knowledge mapping analysis was based on VOSviewer to map keyword co-occurrence and temporal mapping of international higher education governance research. Content analysis was based on the titles and abstracts of the literature to provide an in-depth interpretation of the research content.

### 3. LITERATURE ANALYSIS

This study analyses the overall state of international higher education governance research in terms of the number of articles published and the region (number of studies, research impact).

#### 3.1. Quantity distribution

The 692 pieces of literature to be analyzed were collated into an annual publication line chart (as shown in Figure 1) The results of the distribution of the number of international higher education governance research publications over time in terms of the number of studies are shown below.

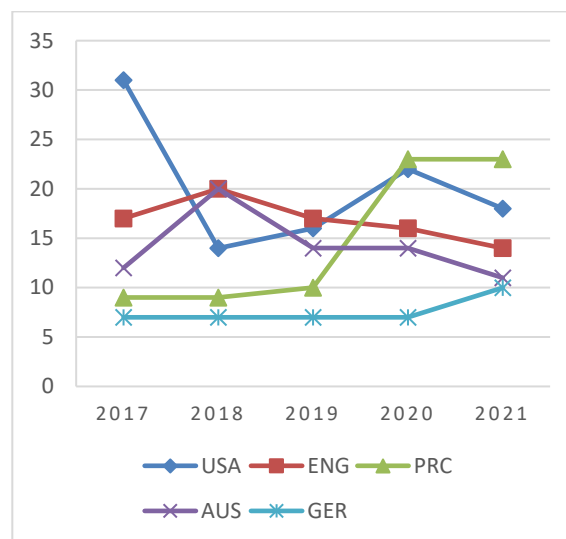


**Figure 1** International higher education publication volume by year

#### 3.2. Regional distribution

In terms of a number of studies, 692 international higher education governance studies were published from 37 countries and regions (by the first author). The top six countries are: USA (101), UK (84), China (74), Australia (71), Germany (38) and Canada (36). In terms of research impact, the US had 422, the UK 484, China 296, Australia 349, Germany 220 and Canada 100.

Figure 2 shows the top 5 countries by year of publication. As can be seen in Figure 3, the number of publications by US scholars trended upwards from 2014 to 2017, peaking in 2017 and then beginning to decline. The number of articles published by Australian scholars is generally on the increase, and although the annual number of articles published and the total number of articles published in the past 10 years are less than those of US scholars, the strength of Australian scholars in international research on university student's engagement in learning cannot be underestimated. England, New Zealand, and China all show a moderate to slight increase in the number of articles published each year.



**Figure 2** Top five countries by year in terms of number of articles issued

A comprehensive analysis of the number of studies and the impact of research shows the following overall status of international higher education governance research.

1. The UK and US lead the world in research quantity and impact

At a regional level, the UK and the US have a clear advantage over other countries and regions in terms of both the quantity and impact of research, to some extent similar to the entire history of higher education. The development of modern higher education originated in the UK and the US, and has been the subject of sustained attention and policy and funding from both governments and educational research institutions. For example, the

US federal government has, through the introduction of various acts, contributed to the increasing importance of higher education in the economic, cultural, military, scientific and technological development of the United States. Today, higher education in the United States has been placed in a strategic position of national security, and there is a clear legal basis for the federal government's involvement in higher education, and the idea that the government should be responsible for the development of higher education has become the consensus of the whole society.

2. The number of higher education governance studies in China is among the highest in the world, but the influence needs to be improved

The number of research studies on higher education governance in China has surpassed that in the past two years, but there is much room for improvement in the influence of research. In recent years, the central government has increased its efforts to simplify and decentralize the government, and the government has gradually changed from direct management to indirect management, with the intention of achieving a clear definition of rights to achieve common governance. The establishment of an educational legal system is a necessary condition to regulate higher education institutions for governance. In accordance with the process of national and local education laws and regulations, the timely development of the charter of higher education institutions should reflect the characteristics, highlight the practicality and operability, but also clarify the boundaries of rights, responsibilities and benefits, and the mechanism of interests. In order to achieve the goal of modernizing education, the state has clarified its relationship with schools and education through policy documents, innovated institutional mechanisms, effectively resolved contradictions and brought into full play the capacity of higher education governance. As a result of a series of policy guidelines, the reform of the governance structure mechanism of higher education institutions has been accelerated, stimulating the intrinsic potential of the subject and self-improvement, thus promoting the attention of the whole country to the core of higher education governance.

### 3.3. High issuing institutions

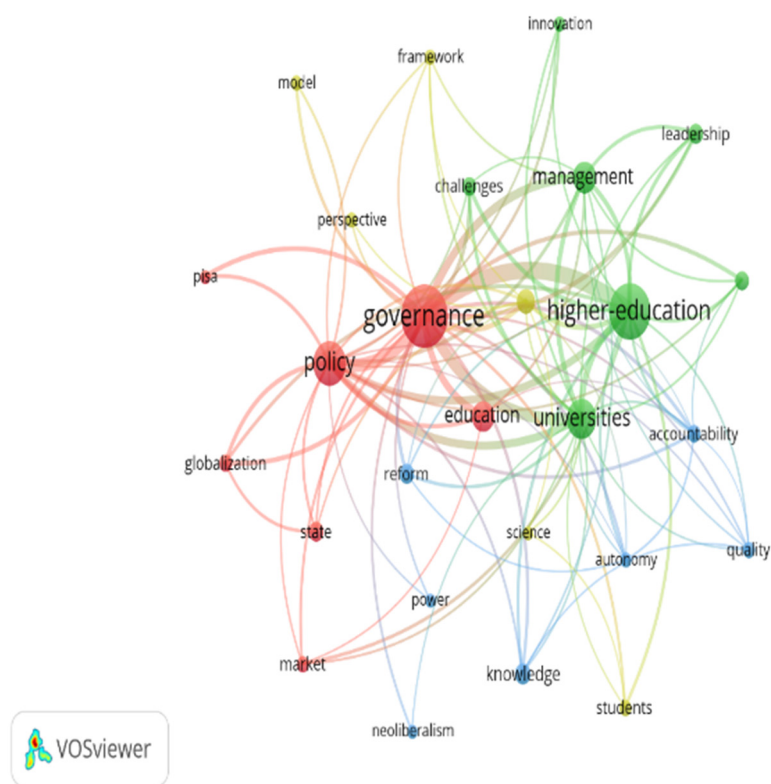
The top 10 high publication institutions are shown in Table 1, with the top 3 institutions being the University of London in the UK (21 articles), University College London (18 articles), and the Hong Kong University of Education (13 articles). Prominent European and US universities make up the majority of the high publication institutions.

**Table 1** High issuing institutions (top ten)

No.	Institutions	Num	%
1	UNIVERSITY OF LONDON	21	3.035
2	UNIVERSITY COLLEGE LONDON	18	2.601
3	EDUCATION UNIVERSITY OF HONG KONG EDUHK	13	1.879
4	UNIVERSITY OF CALIFORNIA SYSTEM	12	1.734
5	UNIVERSITY OF MELBOURNE	11	1.590
6	UNIVERSITY OF OSLO	11	1.590
7	DEAKIN UNIVERSITY	10	1.445
8	GHENT UNIVERSITY	10	1.445
9	UNIVERSITY OF OXFORD	10	1.445
10	AARHUS UNIVERSITY	9	1.301

## 4. ANALYSIS OF RESEARCH THEMES AND HOTSPOTS

Keywords are an important part of the literature, which highly refine the content of an article, and the analysis of keywords can reveal the research hotspots in a certain field [9]. In order to understand the research hotspots in the field of international higher education governance, 692 data were imported into VOSviewer and the keywords were clustered. The keywords were selected 16 times in total, and three clusters of high-frequency keywords were obtained after removing keywords with too broad connotations (Figure 3).



**Figure 3** High frequency keyword clustering mapping

Cluster 1: Education governance policy. This cluster contains the keywords governance, globalization, policy, etc.

Analyzed from the perspective of international organizations, in the process of globalization, international organizations have become a force for governance that cannot be ignored beyond the nation-state. Through cooperation with international organizations, the level and level of internationalization of higher education can be enhanced. The so-called internationalized governance of higher education is precisely the latest development of international organizations and the international rules they constitute to participate in governance in the field of higher education. For example, the United Nations Educational, Scientific and Cultural Organisation (UNESCO) has become a negotiator, initiator, builder, and facilitator of internationalized higher education governance, and is becoming increasingly influential in global governance, playing an important role in promoting the internationalization of higher education. It plays an important role in promoting the internationalization of higher education. International organizations are discursive influencers: they use and articulate different types, languages, and quantities of higher education policies in different contexts; they are global communicators: they share and disseminate higher education policies globally; and they are policy coordinators: they use a variety of resources to ensure the

smooth implementation of higher education policies. The Shahjahan & Madden(2015) study identified three roles for international organizations in international higher education governance research: convergence support, influence regulation, and power framework. In addition to this, Jungblut, Vukasovic & Steinhardt(2020) study found that in the context of increased globalization, international intergovernmental and non-governmental organizations have become increasingly important as global influencers and shapers and that with increasing international activity in higher education, international organizations have to a large extent complemented the shortcomings of higher education policy and even partially 'taken over' the "The development and delivery of higher education policy has been partially 'taken over' by international organizations.

Also analyzed from a policy perspective, Paivandi(2018) focuses on the ways in which the global governance of higher education is influenced by legislative frameworks, institutional features, funding mechanisms, and various stakeholders. He identifies the changes that have taken place in global higher education in recent decades: the increase in the number of higher education service providers, the diversification of higher education service delivery, changes in the way higher education services are delivered, the diversification of higher education revenue sources, and the reduced reliance on state funding for higher education development, and suggests the importance and need for

global higher education governance in the context of such changes. He also discusses how global, national and local participation in education governance through internationalization policies, focusing on the main actors in the development of internationalization policies in higher education governance, how internationalization policies are implemented in higher education governance, and what the relationship between internationalization and global governance is.

Cluster 2: Innovation and challenges in higher education leadership, this cluster contains the keywords challenges, innovation, leadership, management, etc.

From the perspective of this cluster, the following changes will be brought about by continuous innovation in the form of higher education governance: firstly, the governance structure will change from a hierarchical to a networked one. Firstly, the governance structure will change from a hierarchical to a networked one, with government, schools, and society forming a pluralistic network alliance, leading to a realignment of leadership rights and a redistribution of roles, with all actors interacting, collaborating, and participating, and coordinating the values and interests of different actors to achieve mutual complementarity and unity. Secondly, governance is moving from public-private confrontation to public-private cooperation. More and more non-profit organizations and private enterprises are joining the education governance team, providing technical support, financial support, and policy guidance for the development of education. Thirdly, there is a shift from administrative command and control to consultation. The emphasis in education governance is more on voluntary and equal cooperation between various actors. The EU's EMA2 program, for example, provides a common framework for use across the EU to ensure effective cooperation in the development of higher education [1].

However, higher education governance also faces many challenges, and the international higher education system is to some extent incompatible and inconsistent between implementing entities, standard rules, and value systems, and its global governance may imply serious risk challenges. Countries' actions in higher education governance are mainly based on their own value propositions, resulting in a weak sense of community. This leads to a real paradox in the field of higher education where capital interests, citizens' demands and national goals are not aligned [3]. In the context of conceptual differences and value disagreements, the overlapping international higher education systems do not effectively promote collective action in global higher education. In addition, public-private partnerships are ineffective in global higher education governance. The existing global higher education governance system is still dominated by formal international organizations, which have an absolute voice in policy coordination, rule-making and multilateral consultation. In contrast, the role

and position of non-governmental forces in this system is relatively marginal.

Cluster 3: Accountability and autonomy in higher education governance. This cluster contains the keywords accountability, autonomy, neoliberalism, etc.

The main focus is on the diversity of governance actors. Public affairs in education are not only led by the government, but also by a large number of non-governmental organizations, social intermediaries, society, parents, and schools, which all share the responsibility for the governance of public affairs in education. Secondly, the autonomy of European higher education institutions includes, in particular, organizational autonomy, policy autonomy, intervention autonomy, and financial autonomy, although the degree of autonomy varies from country to country [6]. As institutions with greater autonomy are better able to focus their institutional strategies on their specific strengths and adapt to changing circumstances at the regional and international levels, all European countries have developed autonomy systems and national accountability systems (including evaluation and inspection) to ensure that higher education institutions are responsive to the needs of society.

Public universities in most European countries have a moderate level of autonomy to intervene, traditional state regulation is increasingly replaced by accountability, and without increased investment in higher education and research across Europe, universities can fully meet the growing expectations of their role in the European knowledge society and their overall contribution to European competitiveness. Accountability provides moral and political legitimacy, provides the public with information about performance and, at the most basic level, helps to ensure that higher education institutions comply with official regulations.

## 5. CONCLUSIONS AND PERSPECTIVES

### 5.1. CONCLUSIONS

Using the VOSviewer bibliometric software, 692 papers on the topic of higher education governance research included in the Web of Science core database in the past five years were analyzed to map the knowledge of international higher education governance. The findings show that Western countries such as the UK and the US are at the forefront of the field of higher education governance, and that research on higher education governance has been increasing in China in recent years. Research in the international field of higher education governance focuses on three areas: governance policy, innovation and challenges, and responsibility and autonomy.

## 5.2. PERSPECTIVES

Driven by the knowledge economy and technological revolution, and in the face of globalization, higher education governance has been influenced by innovations and challenges from all sides, prompting a shift in its way of thinking and providing new directions for the transformation of higher education governance. In contrast to previous ways of thinking, this study makes the following three recommendations.

The first is to promote a shift in the concept of higher education governance from 'management' to 'governance'. The shift in thinking is a precursor to technology, and the innovation and application of technology will in turn facilitate the shift in thinking. Through big data, the mindset of education governance subjects can change from the original concept of "management", which emphasizes top-down monolithic government control and government management thinking, to a mindset of government, social organizations, and the public. and to the concept of "governance" where government, social organizations, and other relevant stakeholders manage together.

Second, the governance of higher education is shifting from "static" to "dynamic." The governance of higher education is shifting from "static" to "dynamic." Prior to the reform and opening up, higher education governance was rigid and followed a steady development modelled by the government in an administrative way. We can analyze and compare the shortcomings and gaps between our higher education governance and that of developed countries by learning from foreign experiences in higher education governance, and make corresponding adjustments in accordance with our national conditions, in order to find a suitable development path for our higher education governance.

Third, the rising tendency of shifting from "experience" to "data" is pushing higher education governance to become more scientific, democratic, and adaptable. Data that is comprehensive and diversified gives reliable information for higher education governance. The openness, sharing, and equality of data-driven higher education governance broaden the pathways for governance actors to receive information, and all key stakeholders may easily interchange information via the Internet and big data platforms, making governance more scientific. In comparison to empirical higher education governance, data-based higher education governance is dynamic and timely, allowing for constant monitoring and adjustment of higher education governance based on real-time information, making it more adaptable.

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