Journal of Informetrics 9 (2015) 555–569

Contents lists available at ScienceDirect

Journal of Informetrics

journal homepage: www.elsevier.com/locate/joi

China's global growth in social science research: Uncovering evidence from bibliometric analyses of SSCI publications (1978–2013)

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ARTICLE INFO

Article history:
Received 3 January 2015
Received in revised form 26 May 2015
Accepted 26 May 2015

Keywords:
Large-scale bibliometric analysis
Research evaluation
Social sciences development
China
Science and technology policy

ABSTRACT

The phenomenon of China's rise as an emerging scientific power has been well documented, yet the development of its social science is less explored. Utilizing up-to-date Social Science Citation Index (SSCI) publication data (1978–2013), this paper probes the patterns and dynamics of China's social science research via bibliometric analyses. Our research indicates that despite the national orientation of social science research and the linguistic obstacle of publishing for an international audience, China's publications in the SSCI dataset have been rising in terms of volume, world share, and global ranking. But China is still not yet a major player in the arena of social sciences, as is evidenced by the number of Chinese journals indexed in SSCI and the lack of Olympic players. Team research features China's international publishing in social science, but the research outputs are highly unbalanced at regional and institutional levels.

1. Introduction

One hundred years ago, Chen Duxiu, then one of China's most influential intellectual leaders of the New Culture Movement, personalized democracy and science as "Mr. Democracy" and "Mr. Science." He appealed that "only these two gentlemen can save China from the political, moral, academic, and intellectual darkness in which it finds itself" (Chen, 1919). One century later, while the debate surrounding Mr. Democracy and Mr. Science has not totally settled, the discussions of parallel developing basic science versus applied science, natural science versus social science, have intensified in alignment with the allocations of China's escalating research and development funds (Gu, 2001; Rao, 2014).

Undisputedly, social science research has been playing an increasingly active role in national and international policy making. Unlike natural science, which focuses on the natural world, social science studies the "society and the manner in which people behave and influence the world around us."[1] It is expected to promote and secure social and economic sustainable development by providing insights, responses and solutions to the interacting processes of social and environmental change (ISSC, 2013).

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[1] Source: UK Economic and Social Research Council definition, http://www.esrc.ac.uk/about-esrc/what-is-social-science/.

http://dx.doi.org/10.1016/j.joi.2015.05.007
1751-1577/

When measured by the quantity of journal articles, China has risen as a global scientific power (Kostoff, 2012; Leydesdorff, 2005; Zhou & Leydesdorff, 2006; Zhou, Thijs, & Glänzel, 2009b). Accordingly, voluminous bibliometric studies focusing on China have tried to evaluate the country's scientific research performance from a variety of research domains and perspectives (Tang, Shapira, & Youtie, 2015; Zhou & Leydesdorff, 2009). In spite of some insightful studies such as that by Zhou, Thijs, & Glänzel (2009a), it remains unclear to date whether China has also risen as a global scientific power when it comes to social science development. To fill the research gap, this paper uses China's publications indexed in the Social Science Citation Index (1978–2013) to profile the current status and dynamics of China's research performance in general social sciences at a more granular level.

This topic is important for at least two reasons. First, Chinese social scientists are becoming interpreters and even "legislators" of social change in China (ISSC, 2010, 2013). Focusing on issues with which both the public and policy makers are concerned, their scholarly publications can serve as a prism to reflect on what is happening and the impacts on China's sustainable development. Second, because China is the largest developing country, its social science development can and should add more open debates on a variety of global critical issues. A greater engagement by Chinese scholars and attention to Chinese social science development can and will add a plurality of opinions bridging the east-west knowledge divide (ISSC, 2013; Liu, Tang, Gu, & Hu, 2015).

The remainder of this paper is organized as follows. Section 2 briefly reviews the existing literature on social sciences and the novelty of our study. Next we describe the data set for analysis. Then we combine both bibliometric analysis and visualization techniques to illustrate the intellectual structure of China's social science research among five categories: (1) general trends, (2) key actors, (3) co-authorship, (4) research foci, and (5) funding sources. We conclude with major findings, limitations, and policy implications.

2. Literature review

Using large-scale bibliometric analysis as a tool for research evaluation is well received among academics and policy makers (Hicks, Wouters, Waltman, de Rijcke, & Rafols, 2015). The majority of the bourgeoning literature, however, focuses mainly on natural sciences, with very few exceptions investigating social sciences. For example, using 40,000 monograph records in the International Bibliography of the Social Sciences files, Kishida and Matsui (1997) conducted a scientometric analysis of selected domains in social science literature published from 1981 to 1985. They found that national gross domestic product (GDP) is highly correlated with the number of monographs. Ingwersen (2000) discussed the usefulness and caveats of applying the Social Sciences Citation Index (SSCI) to evaluate Scandinavian research. He posited that using SSCI publications is valid for selected social sciences. Later, country-level analysis on social science and humanity research emerged. For example, Kavunenko, Khorevin, & Luzan (2006) analyzed the rapid expansion of Ukraine journals in the fields of social sciences and the humanities. They observed a trend of decentralization evidenced by a notable growth of publications outside the capital of Kiev. Gulgoz, Yedekcioglu, & Yurtsever (2002) explored Turkey's SSCI publications in the period of 1970–1999. They argue that Turkey's social sciences achieved considerable progress in the examined period, as evidenced by publication counts and global rankings.

There are also some pioneering efforts focusing on China (Ma, Li, & Chen, 2014; Zhou & Glänzel, 2010; Zhou & Leydesdorff, 2006; Zhou, Thijs, & Glänzel, 2009a). Utilizing SSCI publications, Zhou and colleagues examined China's performance in social science research from 1974 to 2007 to answer the intriguing question of whether China is "becoming a giant in social sciences" (Zhou, Thijs, & Glänzel, 2009a). They speculated that four factors may affect China's development of the social sciences and predicted that China will become more internationally visible in social science domains. Stimulated by that study's finding of a dramatic disparity of performance between natural sciences and social sciences, Zhou, Su, & Leydesdorff (2010) further examined the citation network of Chinese social science research, drawing upon publications in both SSCI and Chinese Social Sciences Citation Index (CSSCI) in the single year of 2007. They appealed for the establishment of a more objectifying system of research evaluation and internationalization of Chinese domestic journals to upgrade the international impact of Chinese social science development. Recently, bibliometric analyses focusing on special domains in social sciences, such as management and entrepreneurship, have begun to appear (Zhai, Yan, Shibchurn, & Song, 2014; Zhai, Su, & Ye, 2014). For example, in one study conducted by a research group at Wuhan University, the researchers explored the collaboration patterns of China's social science research in national journals drawn from publications indexed in CSSCI from 1998 to 2011 (Ma et al., 2014).

However, some interesting aspects such as regional distribution, China-related research, and the like have been left unexplored. Additionally, the extant studies do not go much further than observations in speculating the factors (including institutional incentives and government funding) driving China's most recent social science research development. Built upon previous research, this paper further explores China's social science research and examines these under-explored topics. We benchmark China's social science development against its natural science cohorts to see whether any unique patterns emerge. Our data covers a 36-year span—1978 to 2013, a period of rapid expansion of China's science base. This enables us to ascertain whether any new developments have arisen or shifted in China. For a country still in a rapid transitional period, we pay more attention to the status quo, but we also assess the dynamics of China' research trends.