

Chapter 8

Trends and Research of Wikis' Quality and Governance Based on Bibliometric and Content Analysis

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ABSTRACT

Wiki is a typical representative of the User-Generated Content. Its appearance greatly promotes the creation, organization, management, and sharing of knowledge on the Internet. As articles grow rapidly in Wikis, the quality of the articles has aroused many people's concerns. The topics on how to assess and control the quality of articles have attracted many researchers. However, few studies have been conducted to investigate the status of this research topic. This chapter explores the current research status and trends of wikis' quality and governance. The authors selected papers from the databases of ISI, EI, IEEE, and other widely used databases. They reported the trends and research of wikis' quality and governance using bibliometric analysis and content analysis of a total of 99 relevant papers. The results show that although the research topics in the field have experienced a very rapid development, they are still at an early age that lacks theories to support them. The discipline of Library and Information Science was found to play a very active role in this new area. Future research agenda and directions are also discussed.

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INTRODUCTION

Wiki is a new form of information production and organization, which is also known as Collective Intelligence, Peer Production, and User Innovation community (Bonabeau, 2009; Viégas, Wattenberg, & Mckee, 2007; West & Lakhani, 2008). Wiki breaks thoroughly the traditional mode of information production and organization, and adopts the incentive mechanism instead of the contracting mechanism, which fully makes use of the activity and creativity of the public (Greengard, 2011). Using modern computer network technologies, wiki allows anyone to generate information almost anywhere at any time in a collaborative way. Meanwhile, anyone can access the information on wikis without any restrictions.

Wikipedia is a representative of wikis, which has become one of the most popular online communities and sources for online information. In January 2013, there were 285 registered languages and 38 million registered users on the Wikipedia. All of the language versions had more than 24 million articles and the number of the articles that users edited was more than 1.5 billion (Wikipedia, 2013). Whether we admit it or not, Wiki has become one of the most important knowledge resources and has been used in domains ranging from science, education, to enterprise. According to Alexa, which provides traffic data, global rankings, and other information on 30 million websites, Wikipedia is one of the top 10 websites on the Web (Alexa, 2013). However, the information quality of wikis has been controversial, largely because of lacking of experts' participation in and quality control mechanisms of information production. In order to better utilize online information resources and promote wikis' development, it is thus significant to evaluate and govern wikis' quality.

As a research topic, information quality (IQ) has a long history, especially for the traditional

information systems. Quite a few researchers have undertaken a lot of research on the definition of IQ, evaluation model, and quality governance (Lee, Strong, Kahn, & Wang, 2002; Strong, Lee, & Wang, 1997). There has been a deep understanding of the evaluation and governance of the information quality both in academia and practice. However, the methods being employed to evaluate the wikis' quality remain confusing and the results of such research are contradictory. For instance, *Nature* reported that Wikipedia had come close to Britannica in terms of the accuracy of its science (Giles, 2005). In contrast, Anderka and Stein (2012) found that more than one fourth of English Wikipedia articles contains at least one quality flaw, 70% of which concern article verifiability entries. Under these circumstances, the governance of wikis' quality becomes very difficult. It is necessary to make a systematic review on the current research about the evaluation and governance of wikis' quality. However, few studies have been able to offer us answers to the questions such as what are the disciplines and journals focusing on this field; what are the important institutes and authors; which sub-topics are the most frequently studied, and which theories and methodologies are often used to explore the related studies. These questions will be addressed in this book chapter using both bibliometric and content analyses. Furthermore, based on our analysis, future research agenda and directions will also be put forward at the end of the chapter.

RESEARCH AIMS AND QUESTIONS

This paper aims to investigate the current research status of wikis' quality and governance and put forward future directions on this topic. Table 1 lists the research questions to be addressed in the study.

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