



Full length article

A bibliometric retrospective of the Journal Computers in Human Behavior (1991–2015)

Helena Blažun Vošner ^{a, *}, Peter Kokol ^b, Samo Bobek ^c, Danica Železnik ^d, Jernej Završnik ^e^a University of Maribor, Faculty of Health Sciences, Center for International Cooperation, Žitna ulica 15, 2000 Maribor, Slovenia^b University of Maribor, Faculty of Electrical Engineering and Computer Sciences, Smetanova ulica 17, 2000 Maribor, Slovenia^c University of Maribor, Faculty of Economics and Business, Razlagova ulica 14, 2000 Maribor, Slovenia^d University College of Health Sciences Slovenj Gradec, Glavni trg 1, p.p. 144, 2380 Slovenj Gradec, Slovenia^e Dr. Adolf Drolc Healthcare Center, Ulica talcev 9, 2000 Maribor, Slovenia

ARTICLE INFO

Article history:

Received 21 June 2016

Accepted 15 August 2016

Keywords:

Bibliometrics

Scientific literature production

Citation history

Geographical distribution

Computers in Human Behavior

ABSTRACT

This study aims to create a bibliometric profile of the Journal Computers in Human Behavior employing bibliometric analysis, bibliometric mapping and thematic analysis to identify its document types, the dynamics and trends of research literature production, impact factor, most cited articles, and large contributing institutions and countries. Additionally, the authors were interested in finding the established patterns of cooperation among countries and institutions and the most productive research themes and their evolution through time. We were also interested in finding out if there are any sleeping beauties among articles published in the Journal. The study revealed a positive trend of scientific literature production and that the average number of references is increasing contrary to the number of pages per publication, which is decreasing, although it has remained stable in recent years. The most productive countries and institutions are from the United States, and the majority of the literature production is done by economically and scientifically fit and well developed countries. The identified research themes correspond with the Journal's aims and scope. The rising number of publications, increasing number of citations and, consequently, the Journal impact factor, together with the existence of sleeping beauties, shows that the editorial policy is well thought out and future oriented.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

The Journal *Computers in Human Behavior* (CHB) is a bimonthly peer-reviewed scientific journal established in 1985 and published by Elsevier. The Editor-in-Chief is Prof. Robert Tennyson from the University of Minnesota. The Journal addresses the use of computers in Psychology, Psychiatry and related disciplines. Additionally, the Journal CHB deals with the psychological impact of computer use on individuals, groups and society. The Journal publishes original theoretical works, research reports, literature reviews, software reviews, book reviews and announcements monthly (Elsevier, 2016). According to the Thomson Reuters Journal Citation Reports 2016 the Journal has reached an Impact Factor of 2880. The Impact Factor measures the frequency with which the "average article" in a journal has been cited in a particular year or

period (Thomson Reuters, 1994). The five year Impact Factor of the Journal is 3724 and represents the average number of times articles from the Journal published in the past five years have been cited in the JCR year. It is calculated by dividing the number of citations in the JCR year by the total number of articles published in the five previous years (Thomson Reuters, 2012a). The Source Normalized Impact per Paper (SNIP) of the Journal, which is defined as the ratio of a journal's citation count per paper and the citation potential in its subject field, is 2088.

In this study, the bibliometric method was used to get an overview of CHB over the past 25 years. Previously, some other journals have been analyzed with bibliometric analyze with the aim of examining the objective performance and developments of journals, based on various indicators such as the number of publications, citation index, document types, impact factor etc. (Fu & Ho, 2015). Thus, for example, Tsay and Shu (2011) analyzed the Journal of Documentation with the aim of exploring the journal's bibliometric characteristics and the subject relationship with other disciplines by citation analysis. Another bibliometric analyze was

* Corresponding author.

E-mail address: hblazun@gmail.com (H.B. Vošner).

performed by [Coronado, Wurtzel, Simon, Riddle, and George \(2011\)](#) who conducted a content and bibliometric assessment of publications within the Journal of Orthopedic & Sports Physical Therapy and reported publication and citation trends over multiple years. Furthermore, [Fu and Ho \(2015\)](#) mentioned in their article some other journals which have been analyzed, such as the American Journal of Roentgenology ([Elster & Chen, 1994](#)), Pain ([Dubner, 2009](#)), Intelligence ([Wicherts, 2009](#)), Water Research ([Wang, Yu, & Ho, 2010](#)) etc.; however, it is interesting to note that almost all bibliometric journal analyzes are also published in journals for which the analyzes are carried out. Such analyzes represent an added value of the journal, since the readers can get a quick overview of types of publications over years, the data about the journal development, such as content, themes, Impact Factors, etc. Mostly, researchers present information about the number of publications, types of the documents, publication years, number of pages, number of citations, etc. within journal bibliometric analyzes. However, some researchers go a little further in their analyze and also visualize their bibliometric results. The motivation for this article and research came from a variety of reasons; the first is that no such analyze was performed, specially for the Journal CHB, the second is, in our opinion, the excellence of the Journal, which publishes the best science within its scope and, therefore, develops from year to year, and thirdly by reason of belonging to this particular Journal and being able to contribute something to its visibility.

1.1. Bibliometric analyze

Alan Pritchard was the first to introduce the bibliometric approach and defined it as “the application of mathematical and statistical methods to books and other media of communication” ([Pritchard, 1969](#)). Later, Hawkins extended Pritchard’s definition and defined bibliometrics as “the quantitative analysis of the bibliographic features of a body of literature” ([Hawkins, 2001](#)). De Bellis defined the objective of bibliometrics as analyze to identify patterns in the literature, such as the most prolific authors, institutions, countries, and journals within a scientific discipline, the trends of literary production over time, collaboration networks and similar ([De Bellis, 2009](#)), while Garfield claimed that, with bibliometric studies, we can examine the history and structure of a field, the flow of information into a field, the impact of journals, and the long-term citation impact of publications ([Garfield, 2006](#)).

1.2. Bibliometric mapping

Bibliometric mapping, on the other hand, is used to visualize research literature production with a variety of bibliometric maps that provide a structural overview of the publications. A popular way to use bibliometric mapping is to identify specific research areas, with the purpose of getting an overview of the topology of the area, its themes, topics and terms, and how they relate to each other ([van Eck, 2011](#)). A widespread mapping technique is Visualization of Similarities (VOS) ([van Eck & Waltman, 2007](#); [van Eck, Waltman, Noyons, & Buter, 2010](#); [Waaiker, van Bochove, & van Eck, 2011](#)) which has been implemented as a computer program called VOSviewer (Leiden University, Netherlands) ([van Eck & Waltman, 2013](#)). The VOSviewer visualizes bibliometric maps in various ways to emphasise different aspects of the literature production. VOSviewer uses a unified approach to both mapping and clustering and it is based on the normalized term co-occurrence matrix and a similarity measure which calculates association strength between terms ([van Eck & Waltman, 2013](#)). The terms that are closely associated are structured into clusters, denoted by the same cluster color. The proximity of terms can be interpreted as an

indication of the similarity of the context in which they occur. In addition, VOSviewer Version 1.6.2 enables the creation of landscapes in which terms are colored according to the year of the term’s appearance in the scientific literature. The popularity of a term is indicated by the size of the font and the enclosing rectangle – larger rectangles and fonts represent more prolific terms. VosViewer can also generate institution, co-authors, countries, citation and keyword networks.

1.3. Aims of the present study

The overall aim of this study was to explore the Journal CHB’s bibliometric characteristics, namely, to conduct a descriptive bibliometric analyze and report publication and citation trends from 1991 to 2015. Within the descriptive bibliometric analyze we were interested to find out the dynamics and trends of research literature production (number of articles, average number of citations per article per year, average number of pages per article per year, average number of references per article per year). Additionally, we were interested in finding out which are the Journal’s more prolific countries, institutions and authors and how did the Journal develop according to citation and Impact Factor trend through time. The aim of the present study was also to visualize the content of published articles using a mixed method approach, combining bibliometric analyze and bibliometric mapping with thematic analyze to find out which are the most productive research topics/terms presented in the CHB Journal and how did they evolve through time? Furthermore, we were interested about patterns of collaboration existing among countries and institutions. According to the increasing interest of so-called Sleeping Beauties (SB) which represent unnoticed publications, that sleep (are not cited) for a long time and then suddenly become interesting and highly cited ([Van Raan, 2004](#)), we were also interested in finding out if there are any SB published in the CHB Journal. [Baumgartner \(2010\)](#) defined SB as a publication that gets at most 10 citations during the first ten years and an average of at least 5 citations per year after the first ten years, with at least 100 citations in total. However, more generally SB is characterized by the length of the sleep in the years after publication; depth of sleep in terms of a maximum average citation rate during the sleeping period and awake intensity.

Therefore, we posed the following research questions:

1. What are the dynamics and trends of CHB research literature production according to number of articles, and their descriptive attributes and citations?
2. How did the Journal CHB Impact Factor develop through time?
3. What are the more prolific authors, institutions and countries according to the number of publications?
4. What patterns of cooperation exist among countries and institutions?
5. Which are the most productive research themes and how did they evolve through time?
6. Which patterns exist in the authors’ keyword network?
7. Which Sleeping Beauties were published in the Journal CHB?

2. Methodology

2.1. Search strategy and data analyze

The search was conducted on 23rd December 2015, in the database Web of Science (WoS) Core Collection (Thomas Reuters, USA), using the search string: “Computers in Human Behavior” in the Publication Name field for the period 1991 till 2015 (inclusive).

To perform the descriptive bibliometrics analyze (distribution of types of documents, most prolific articles, authors, institutions, and

Download English Version:

<https://daneshyari.com/en/article/4937773>

Download Persian Version:

<https://daneshyari.com/article/4937773>

[Daneshyari.com](https://daneshyari.com)