Trend evaluation and comparison of the use and value of GL in core demography and computer science journals

Rosa Di Cesare, Roberta Ruggieri
CNR – Istituto di Ricerche sulla Popolazione e le Politiche Sociali

Silvia Giannini, Stefania Biagioni
CNR – Istituto di Scienza e Tecnologie dell'Informazione "A. Faedo"

Abstract
Over the last ten years the impact of grey literature on conventional literature has frequently been studied. Studies have made use of bibliometric instruments used for citation analysis. Recently, this research has magnified attention on the impact of new forms of GL that have emerged along with the spread of Internet.
This work aims to a) measure the impact of GL on two different scientific fields; b) describe the characteristics of GL documents cited; c) ascertain any changes in LG impact due to use of the www.
Two years (1995 and 2003) were chosen as illustrative of the situation before and after the growth in the use of the www.
With these aims, bibliographic references have been analysed in publications in two scientific fields for which it is logical to hypothesise a different impact. The publications are three journals of computer sciences included in the Journal Citation Report (JCR) Science Ed., and three journals of demography included in Journal Citation Report (JCR) – Social Science Ed..
The three journals in each of the two categories were chosen on the basis of their stability during the observation period (1995 and 2003) in terms both of their Impact Factor (IF) - high, medium and low - and of their ranks.

1. Introduction

Over the last ten years the impact of GL on conventional literature has frequently been studied. (e.g., see Alberani, 1990; Di Cesare, 1994; Pelzer and Wiese, 2003; Cordes 2004). Studies have made use of bibliometric instruments used for the citation analysis. These studies have analysed the GL impact on conventional literature in different disciplinary fields and shown its value as an information source, they have also drawn attention to the usefulness of citation analysis, contributing thereby to highlighting the problems connected with their standardization and with GL producers.

Our study examines the impact of GL on demographics and on a specific field of computer science.

The analysis aims to verify the different impact of GL in the two above disciplinary fields: demography more directed towards "national issues" (Katz, 1999), while the second is not influenced by these constraints. As a consequence they use different information sources and cite different types of GL documents.
The comparison is between two years and aims to a) measure the impact of GL on the above scientific fields; and b) describe the characteristics of GL documents cited; c) ascertain any changes in LG impact due to use of the www.

2. Materials and methods

2.1. Sampled journals

We analysed a sample of journals indexed by the Science Citation Index (SCI) and by Social Science Citation Index (SCCI) and included in the ISI-Journal Citation Report (JCR) under the sub-category "Information systems" of the category "Computer science" (CS-IS, for short), and under the category "Demography" (DEM, for short). All selected journals are also included in two more specialized Indexes. Table 1. All selected journals were suggested by domain experts.

In each of the two categories, the three journals were chosen because their IF (high, medium and low) and ranks were stable during the observation period (1995 and 2003).

Table 1. Sampled journals