

Diffusion of a new concept. The case of Social Capital

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Abstract

This paper deals with the development of network structures around a new concept that has diffused in scientific communities and also outside them. The concept that has been chosen as a topic for this research is Social Capital, because it has been a popular concept in different scientific fields as well as in everyday speech and the media. It seemed to be a 'fashion concept' that appeared in different situations at the Millennium. The network formation is affected by social relations and informal contacts that push new ideas. The study is based mainly on bibliographic data. Materials for bibliometric studies have been collected from different databases. The interpretation of bibliometric studies is often difficult because the results have to be related to the complexity of human behavior. In a case like this, when a new concept is the topic of research, it seems especially important to interview some key persons, who are known to have a gatekeeper position in the field. 11 Finnish researchers and specialists that have had influence on the diffusion of social capital in Finland have been interviewed. Anyway the diffusion of new ideas, concepts and innovations is a social process, where different actors have their own roles. An information sensitive researcher at a right time in a right place may be an important change agent in the diffusion process. The diffusion of a new idea is fast in the networked world. The circumstances in scientific communication have changed considerably as a result of the development in telecommunications, computer networks and the Internet. This all means that information flows faster, less formally and across different boundaries. This gives possibilities for faster change and diffusion of new concepts.

Keywords: Bibliometrics, Diffusion of knowledge, Growth of knowledge, Information studies, Scientific communities, Social Capital, Social networks, Social studies of science.

Resumen

Esta comunicación trata del desarrollo de estructuras de red en torno a un nuevo concepto que se ha difundido dentro de la comunidad científica y fuera de ella. El concepto elegido

como tema de esta investigación es Capital Social, por haberse convertido en un concepto popular en varios campos científicos al igual que en los medios de comunicación y en el lenguaje diario. Parece ser un “concepto de moda” que surge en diferentes situaciones en este milenio. El establecimiento de una red se ve afectado por las relaciones sociales y por los contactos informales que hacen surgir nuevas ideas. El estudio se basa principalmente en datos bibliográficos. Los datos para los estudios bibliométricos han sido recolectados de varias bases de datos. La interpretación de los estudios bibliométricos a menudo es difícil porque los resultados guardan relación con el complejo comportamiento humano. En una situación como la presente, cuando un nuevo concepto es el asunto de la investigación, resulta especialmente importante entrevistar a algunas personas clave en el campo en cuestión. Se entrevistó a 11 investigadores y especialistas finlandeses que habían sido responsables de la difusión del Capital Social en Finlandia. En cualquier caso, la difusión de nuevas ideas, conceptos e innovaciones es un proceso social, donde diferentes actores representan sus roles particulares. Un investigador de la información en el momento oportuno y en el lugar adecuado puede resultar un importante agente de cambio en la difusión del proceso. La difusión de una idea nueva es rápida en un mundo interconectado. En la comunicación científica las circunstancias han cambiado considerablemente como resultado del desarrollo en las telecomunicaciones, redes de ordenadores e Internet. Todo ello significa que la información fluye a mayor velocidad, menos formalmente y traspasando fronteras. Esta situación posibilita un cambio más rápido y la difusión de nuevos conceptos.

Palabras clave: Bibliometría, Capital social, Comunidades científicas, Crecimiento del conocimiento, Difusión del conocimiento, Estudios sobre la información, Estudios sociales de la ciencia, Redes sociales.

1 Introduction

Social capital is a term that became popular in different fields of sciences in the 1990's. Rather soon it became popular in the media and now it is used in everyday language. The database analyses (Web of Science, and several subject databases) show a sharp growth rate of publications at the end of the decade. (Fig. 1 and fig. 2).

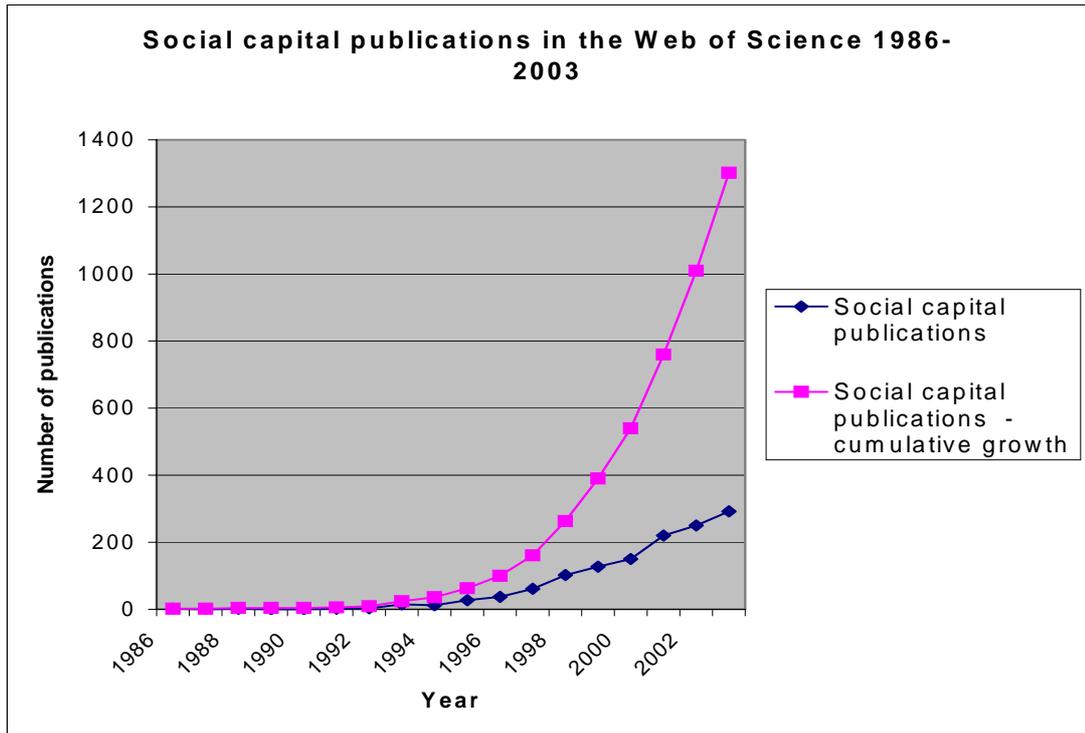


Fig. 1. Social capital publications in the Web of Science 1986-2003

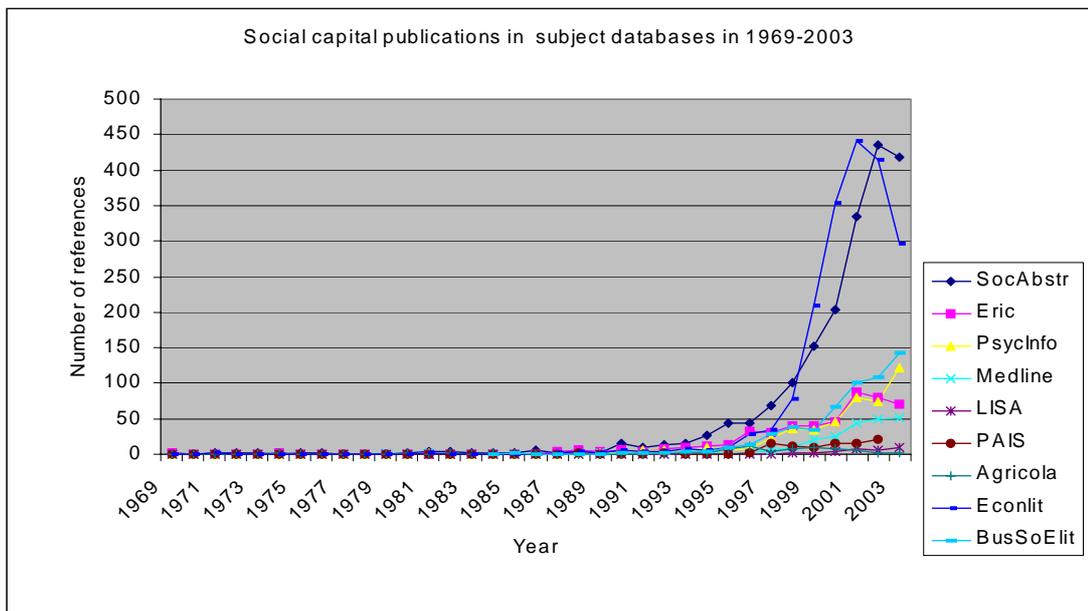


Fig. 2. Social capital publications in subject databases 1969-2003

The first publication in which social capital as a concept appeared for the first time in scientific discussion was published as early as in 1916. It is possible that someone else had used the term earlier either in speech or in publications, but Lyda J. Hanifan’s article (1916) is the first that can be traced in review articles (e.g. Woolcock 1998, 26-31), bibliographies and databases. This is the phenomenon that Rogers (1995, 15) calls ‘re-invention’ of a term.

2 Origins of Social Capital

The term social capital was employed as early as 1916 by Hanifan, a practical reformer and a state supervisor of rural schools in West Virginia. Hanifan states that with social capital “I do not refer to real estate, or to personal property or to cold cash, but rather to that in life which tends to make these tangible substances count for most in the daily lives of a people, namely, goodwill, fellowship, mutual sympathy and social intercourse among a group of individuals and families who make up a social unit, the rural community, whose logical center is the school.” And then: “If [an individual] may come into contact with his neighbor, and they with other neighbors, there will be an accumulation of social capital, which may immediately satisfy his social needs and which may bear a social potentiality sufficient to the substantial improvement of living conditions in the whole community” (Hanifan 1916, 130).

Hanifan has the same kind of fear as many recent social scientists: “That there is today almost a total lack of such social capital in rural districts throughout the country need not be retold in this article. Everybody who has made either careful study or close observations in country life conditions knows that to be true” (Hanifan 1916, 131).

The field in which the term social capital occurs for the first time is education. Hanifan was a practical reformer and a state supervisor of rural schools in West Virginia. He emphasised the meaning of school in the development of a rural area and picked up the great importance of community and in this sense, social capital. The article was published in *Annals of the American Academy of Political and Social Science* that has published articles that belong widely to social and political sciences.

Half a century later the concept was re-invented or “reincarnated” in the field of sociology. We can state that on the crest of new waves of social capital sociology was the forerunner science, and soon appeared economics.

3 Diffusion of Social Capital

Hanifan’s article was not so impressive that it could have caused a boom in research on social capital, or even discussion on it. There is no trait of this in the literature. It became a cited publication as late as in the 1990’s, i.e. 80 years later. We can call it a “Sleeping Beauty of Social Capital”. Some publications that are unnoticed for a long time, and then, almost suddenly, attract a lot of interest are called Sleeping Beauties. These publications are often ahead of their time (Van Raan 2004).

According to bibliometric analyses and content analyses of social capital publications, the next smooth wave of social capital research rose in the 1950’s and 1960’s in Canada and in the USA. In the 1970’s, Pierre Bourdieu used the term as “one of his capitals”. Some other European researchers used the term, when it included the meaning of characteristics of an individual. The American concept that became popular in the 1990’s by Coleman and Putnam includes the feature of a community or a larger society.

It seems that it is not possible to name just one important publication that has affected on the diffusion of the concept. According to the bibliometric analyses and the interviews of Finnish scientists that were done, three publications were chosen as so-called Milestone Publications of Social Capital. These publications have been cited year after year and are still cited again

and again. These are Bourdieu's article (1986), Coleman's article (1988) and Putnam's book (1993). The last one has been most important in the popularisation of the concept, and it is still highly cited in spite of the later publications on social capital by Putnam (1995, 2000).

The growth of social capital publications was occasional in many subject fields until the beginning of the 1990's. Bibliometric analyses that have been made on several subject databases, as well as on the interdisciplinary Web of Science databases show that in the second half of the 1990's there was a clear and often sharp increase in social capital publications. It seems that in fields like sociology and economics the annual rate of new publications has declined at the Millennium. It may be temporary or it may be a sign of a new concept or paradigm. During this research process it was not possible to find it out, but a new study after 5-10 years might tell us more about the trends. In education and medicine the growth rates seem to have slowed down. In psychology, and business and organization studies the annual number of new publications is still growing. The concept of social capital was implemented in these fields later.

On the basis of these empirical studies we can state that social capital became 'tacit knowledge' at the Millennium. It is now a term commonly accepted in both scientific and daily communication, and it is no longer necessary to cite these authorities in every publication that deals with social capital.

4 Paradigm change

A paradigm does not develop easily, especially in the social sciences. There can be several paradigms or viewpoints in a field at the same time. On the basis of terminology we can state that a kind of paradigm change has happened when a term become 'tacit knowledge', or is a part of the common language of the field and when we do not need to explain what a term means. The changed terminology affects the storage and retrieval of information in databases when a term has been approved in a thesaurus. Before that, the indexers have had to use synonyms as signal words that persuade readers to use the documents, texts, new concepts and new ideas.

The bibliometric analyses show that the concept must have had influence on the development of subject fields like sociology, economics, psychology, education, business and organization studies and medicine. The number of publications has been growing, and the subject descriptors illustrate new fields of research that have been influenced. Some other fields such as agriculture, library and information studies, and political sciences have also been influenced.

The expert interviews confirm this result. The sociologist who was interviewed in this study does not think that there is a paradigm change; he said that the phenomenon of social capital has come into discussions. It is like a Trojan horse that brings rational thinking in social sciences. A multidisciplinary social scientist thinks that in economical welfare studies there is a paradigm change. The economists said that maybe there is no paradigm change but a new point of view on research, a softer social point. The health economist thinks that the paradigm change is possible. He said that maybe not in economics, but in sociology and social policy studies. Also in health studies it has given a new viewpoint. The researcher in health and medicine believes that the paradigm change is real; in health sciences and epidemiology many

things progress rapidly so we can not examine health only from a narrow medical point of view.

The researcher in psychology does not believe that there is a paradigm change, but we can see social capital as an interpretative addition to the research. Also it means that in psychology the social psychological side is taken into account. The researcher in education thinks that there is a paradigm change and new viewpoints to the field. In library and information field the interviewed experts that work in practice believe that in information science there will be a paradigm change from a technocratic and information system viewpoint to a more social view. Both of the interviewed information scientists are interested also in organization studies. They see the importance of social factors to information studies. One of them hopes that there will be a paradigm change that means change to a more social from an individual viewpoint.

As Kuhn says, the paradigm is what the members of a scientific community, and they alone, share. Conversely, it is their possession of a common paradigm that constitutes a scientific community of a group of otherwise disparate people (Kuhn 1974, 294). On this basis we can assume that a paradigm change is happening in some fields, and at least a new viewpoint has been adopted in many disciplines. Another thing is, how long a new paradigm lives.

5 Conclusions

The aim of this study was to understand the development of network structures around a new concept that has diffused in scientific communities and also outside them. The network means both networks of researchers, networks of publications and networks of concepts that describe the research field. The emphasis has been on the digital environment and on the so-called information society that we are now living in, but at this transitional stage, the printed publications are still important and widely used in social sciences and humanities. The network formation is affected by social relations and informal contacts that push new ideas.

The circumstances in scientific communication have changed considerably as a result of the development in telecommunications, computer networks and the Internet. Digital libraries give new possibilities to browse and search information. Electronic journals and books come to a researcher's desk in a few seconds. There have been obvious changes compared to old-fashioned libraries with card catalogues and interlibrary lending, when it took days or weeks to get a book or an article. This all means that information flows faster, less formally and across different boundaries. This gives possibilities for faster change and diffusion of new concepts.

Another question is how can we ever know which new concepts will survive? How could Lyda Judson Hanifan ever have known that his practical concept would have such a success 80 years later? The reasons are often mysterious. It is possible that the combination of economic and social characteristics suits our Western societies at the Millennium. It gives new viewpoints to many social problems and research problems, as many of the interviewees emphasized, i.e. something soft to hard sciences, something hard to soft sciences. However, social capital has caused, if not a commonly accepted paradigm change then at least a new viewpoint for several fields of sciences.

During last ten years much has happened to the concept of social capital. It has evidently diffused in many disciplines and also globally. The number of publications and ongoing research has grown. There is, on the contrary, some decline of the number of publications in the fields that have been the first to adopt this concept. A question is what shall be the next concept that has such an effect on different fields of sciences. In this study it seems difficult to trace any concept that could be an inheritor of the concept of social capital in its contents and in its fast diffusion and popularity.

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