Innovation: Exploring the knowledge base

By Jan Fagerberg* and Koson Sapprasert**,
* Center for Technology, Innovation and Culture (TIK), University of Oslo, CIRCLE, University of Lund and ICER, Torino (jan.fagerberg@tik.uio.no)
** Center for Technology, Innovation and Culture (TIK), University of Oslo

Abstract

When society changes the need for knowledge may change well. New types of knowledge and new ways to organize the production of it may emerge as knowledge producers respond to the challenges posed by a changing society. In fact, the existing disciplines within the social sciences are themselves (relatively recent) examples of how new knowledge fields emerge and gradually establish themselves with appropriate organisations and institutions (Merton 1973), and there is no reason to believe that the existing pattern of organisation in the social sciences represents the end of history. On the contrary new scientific fields emerge all the time, within and across existing disciplines (Whitley 2000, Becher and Trowler 2001), and in the course of time some of these may develop into new social organisations with characteristics similar to those of existing disciplines and compete with these for attention and resources. In this paper we will focus on such emerging field, the community of scholars engaged in understanding innovation, e.g., the social process that allows for continuing qualitative improvements in products, technologies and the organization of economic activities. This is a field that has got increasing attention in recent years and many new academic centers, departments, journals etc. devoted to this type of research have emerged.

Although innovation is a very fashionable topic today, this has not always been the case (Godin 2006). If we go back the early part of previous century, at the time when the present social sciences were in the emergent state, there were very little attention to the subject. Exceptions that prove the role include Gabriel Tarde, a French judge who became interested in imitation and developed an original approach the study of the subject, and Josef Schumpeter who advanced a theory in which innovations, and the social agents underpinning them, were seen as the driving forces of economic development. The topic received some more attention around the time of the Second World War as policy makers, first in the US and then elsewhere, became interested in R&D and innovation an important impetus to progress in the military and (to a lesser extent) in the civil sector (Hounshell 2000). However, not until the 1960s, half a century after Schumpeter first presented his theory and a decade after his death, did a real surge of interest in the subject take place. In the course of a few years several important contributions emerged in fields such as economics, management and sociology. In the UK the first really cross-disciplinary research center on the topic, SPRU at the University of Sussex, was established in 1965, with Christopher Freeman as its first director. From this time onwards research in this area has flourished, with a particularly strong growth in the 1990s.

What we will do in this paper is to study the characteristics of this emerging field of knowledge. However, researching the knowledge base of innovation today is complicated by the fact the field is not particularly rich on institutions and organizations that might have helped us indentifying the core contributions and/or contributors to the field. For example,
Hambrick and Chen (2008), in a study of the strategic management field, were able to identify central contributions/contributors to that field because it was organized around a society and a journal (Strategic Management Society and Strategic Management Journal). This is not the case to the same extent for innovation studies. Although some professional meeting places have emerged, no society maps the entire field (Fagerberg and Verspagen 2009). And though the journal Research Policy is generally acknowledged as an important publishing outlet for this type of work, there is also sprinkling of other journals that researchers in this area make use of. Moreover, it is well known that in emerging scientific fields, important work often tends to be published in books rather than journals (Cole 1983) and this holds, as we shall see, in this case as well. It follows that it is quite challenging to find objective criteria for identifying the scholars that make up the field and what the central contributions to the literature are. This is why Fagerberg and Verspagen (2009) felt compelled to collect their own data through a self-selecting “snow ball” survey. That study identified a large number of relatively small research groups bound together by a smaller number of what they called “cognitive communities”, that is, networks of (groups of) scholars bound together by common appreciation for central scholars in the field (sources of inspiration), common meeting places and journals. It is possible, however, that the study by only including scholars that identified themselves with the term “innovation studies” overlooked researchers that do work on innovation but in contexts where the term is less common. Indeed, the question of how the emerging field of innovation studies relates to other disciplinary and cross-disciplinary currents within the social sciences was hardly touched upon by that study. Moreover, the methodology applied did not allow them to explore the characteristics of the literature that has emerged.

In an attempt to throw more light on these issues we will in this paper exploit the fact that there already exist a number of authoritative contributions aiming at surveying the field or important parts of it. As experts in the field one should expect the authors of these contributions to make references to the most important literature in this area. The next section describes in more detail the process that led us to identify the central scholarly contributions in this area. We then analyze the characteristics of this literature both in terms of thematic priorities and the background and orientation of the contributors. In a subsequent step we search for references to this core literature in scholarly journals and, with the help of cluster-analysis, use these to make inferences about how the field is structured and the links between this “core” and different disciplinary contexts.

**References**


