

Are You Talking to Me? The Nature of Community in Entrepreneurship Scholarship

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This special issue is devoted to understanding the scientific structure of entrepreneurship research. Research in entrepreneurship has grown rapidly, encompassing multiple theoretical and methodological traditions. Articles in this issue use bibliometric techniques to find linkages among published entrepreneurship scholars. These analyses show that research in the entrepreneurship field contains: multiple but disconnected themes; dominant themes that reflect the disciplinary training and lens of their authors; and considerable dynamism and change in key research themes over time. These special issue articles provide rich opportunities for identifying insightful, influential, and creative research niches in the entrepreneurship field.

This special issue of *Entrepreneurship Theory and Practice* focuses on how entrepreneurship scholarship is organized by entrepreneurship scholars. Rather than offer frameworks that categorize types of entrepreneurship scholarship based on assumed themes that may characterize the field (i.e., Busenitz et al., 2003; Davidsson, 2003, 2004; Gartner, 1985; Low, 2001; Low & MacMillan, 1988; Shane & Venkataraman, 2000; Wortman, 1987; Zahra, 2005; Zahra & Dess, 2001), the articles in this special issue explore how scholars make connections to other entrepreneurship research through their references. To do so, the articles identify and analyze what information (i.e., books, monographs, journal articles) entrepreneurship scholars pay attention to and implicitly link together when conducting their own research. Articles in this special issue seek to capture and identify, through analytical measures, the nature and kinds of intellectual discourses and communities that comprise the field of entrepreneurship scholarship.

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The type of analyses in the articles that we have included in this special issue fall under the label of scientometrics, which is the study of science using the methods of science (Price, 1963, 1965). Authors rely on bibliometrics, which is the study of a given field or body of literature using quantitative analysis and statistics to describe patterns of publication (Glazel, 2005; Hertzel, 1987; Osareh, 1996a, 1996b). The primary technique used in the selected articles is document and author co-citation analysis, which involves analyzing the number of times two documents (e.g., a book, monograph, or journal article) or authors of documents are cited together in another document (McCain, 1990; Small, 1973). When certain documents or authors are repeatedly cited together, one may assume that they are related. Further, when these co-citations are frequently found, one can identify groups of authors and documents, and implicitly, the kinds of topics these authors are studying (Garfield, 1955; Gmur, 2003; McCain, 1986; White & Griffith, 1981).

Different forms of co-citation analysis have been used to study nearly all fields in the sciences, such as chemistry (Garfield, 1986), economics (Cahlik, 2000; McCain, 1991), neuroscience (Braun, Glazel, & Schubert, 2001), research on semiconductors (Tsay, Xu, & Wu, 2003), and even the structure of science itself (Boyack, Klavans, & Borner, 2005). Different forms of co-citation analysis have also been used in the study of various aspects of management, such as information systems (Culnan, 1987), organizational behavior (Culnan, O'Reilly, & Chatman, 1990), and strategic management (Ramos-Rodriguez & Ruiz-Navarro, 2004). And, there have been previous explorations of the field of entrepreneurship using bibliometric methods (e.g., Dery & Toulouse, 1996; Ratnatunga & Romano, 1997; Watkins, 1994, 1995). Thus, the use of co-citation analysis for studying the intellectual structure of a scholarly field has been widely used, has a long history, and has been shown to be both valid and reliable (Borgman, 1990; Van Raan, 1988; White & McCain, 1989).

The Genesis of This Special Issue

As Jerry Katz has so thoroughly documented (cf. Katz, 2003; and <http://eweb.slu.edu>), entrepreneurship scholarship has “exploded” over the past 20 years with a significant increase in new entrepreneurship journals, faculty positions, endowments, conferences, articles, and books. Further, from an anecdotal perspective, attending any one of the many conferences where entrepreneurship scholars might congregate (e.g., Babson-Kauffman Entrepreneurship Research Conference, RENT [Research in Entrepreneurship and Small Business], and Entrepreneurship Division of the Academy of Management), gives one a sense that a significant number of new scholars are involved in entrepreneurship research and that they are studying a wide variety of topics and issues. So, it would be understandable to ask: What are all of these people doing?

Concurrently, several scholars were also asking this question and presenting their insights through a number of presentations at various entrepreneurship research conferences (e.g., Grégoire, Dery, & Béchard, 2001; Landstrom, 2001; Reader & Watkins, 2001; Schildt & Sillanpää, 2004; Watkins & Reader, 2003). It seems appropriate to bring these findings together into a special issue that explores the various intellectual communities that are emerging in the entrepreneurship field. In June 2004, during the Babson-Kauffman Entrepreneurship Research Conference at Strathclyde University in Glasgow, we met as a group to discuss these working papers and offer suggestions for how these findings might be presented as a whole. The four articles that follow are the result of that discussion.

Thoughts and Comments

Rather than offer an outline or reprise of the major findings of each paper, we will use the remaining pages of this introduction for some thoughts and comments about the nature of community in the entrepreneurship field. We should note that the displays of information presented in these special issue articles are visually rich and detailed with many insights into the structure of the entrepreneurship field. Even though some of these articles are much larger than those normally presented in this journal, the challenge that the authors faced in presenting these findings was to be judicious in their presentation and discussions of the themes/groupings. Much more could have been offered as interpretations, if these articles could have been even larger in size. Given the rich findings of these studies, we encourage readers to spend some time studying the diagrams in the articles as a way to come up with their own labels for the connections/groupings of authors. As Reader and Watkins (2006) suggest in their survey of many of the scholars that comprise these analyses, there seems to be many interpretations and labels that could be applied to specific connections and groups. It is hard to see what the essence of the connections among entrepreneurship scholars represents when we ourselves are also engaged in making these connections through the citations we make in our own research. So, again, please take some time to study the diagrams each article offers so that you can come up with your own insights on the structure of entrepreneurship scholarship. Be that as it may, here are some insights that we see in these articles:

Entrepreneurship Scholars Are Not One Group, but Many

One of the benefits of presenting a set of articles with the same goal of applying bibliometric methods to documents in the entrepreneurship field is the value of seeing how different samples, sampling techniques, and analytics, does appear to result in some consensus on the changing intellectual structure of the entrepreneurship field and its main topic areas. For example, while Grégoire, Noël, and Déry (2006) use, as their sample, documents cited in the Babson–Kauffman Entrepreneurship Research Conference, “Frontiers of Entrepreneurship” series, and the other articles (Cornelius, Landström, & Persson, 2006; Reader & Watkins, 2006; Schildt, Zahra, & Sillampää, 2006) use the documents cited in the Social Science Citation Index (SSCI), all four articles appear to generate “groups” or themes of similar co-cited authors/documents. There does seem to be a number of distinct groups of scholars who do not have significant intellectual overlaps in citations in the entrepreneurship field. We will offer such labels as: (1) venture capital, (2) corporate entrepreneurship, (3) “the economists,” (4) strategic entrepreneurship, and (5) ethnic entrepreneurship as groups of scholars who have more clearly defined boundaries as to which scholars/documents they pay attention to. It would be difficult, then, to come up with an overarching theme that could easily encompass the specific issues of these distinct groups of scholars which could serve as a label for what entrepreneurship, as a topic (or community) overall, represents (Gartner, 2001). Convergence, then, in terms of developing a community of entrepreneurship scholars, seems to be more about the development of communities of scholars that share similar interests in specific topics in the entrepreneurship area. These observations would support critics who see entrepreneurship as a set of loosely connected research groups that lack an organizing framework or a dominant paradigm (for a discussion, see Zahra, 2005). To be sure, having diverse themes in a field is not unusual. What is unusual is to uncover such disconnectedness among these groups, as revealed by some of the articles in this issue (Schildt et al., 2006). As pointed out by Reader and

Watkins (2006), the separations are not always just a matter of topic interests but sometimes reflect country of origin as well.

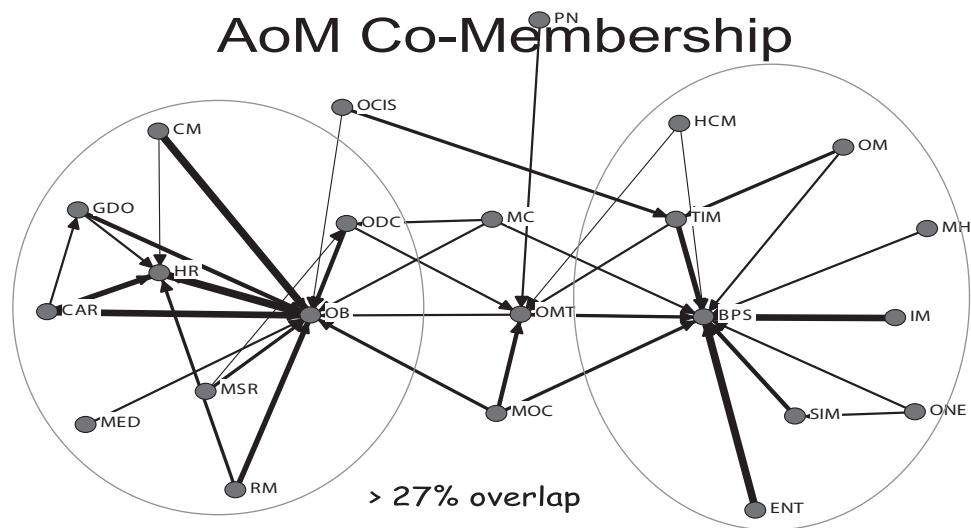
This said, it is worth pointing out that at least to an extent apparent fragmentation may also be sound specialization that comes naturally in a maturing field. As observed in the introduction to Cornelius et al.'s (2006) article, it is normal practice in young fields that the empirical research aims at broad understanding of the phenomenon. Once such broad, basic understanding has been achieved it is natural for different parts of the research community to turn to narrower subsets of questions. In their empirical analysis the same authors note that the number of "outsiders" that appear as significant contributors is substantially reduced in the most recent time period. This is a sign of increased coherence rather than fragmentation. Moreover, it is noteworthy that many of the authors-respondents in Reader and Watkins' (2006) survey identified themselves with "Start-Up and Growth of New Ventures" rather than the narrower niche the co-citation analysis placed them in. This indicates that there is still a widespread sense of affiliation with a broader entrepreneurship domain among authors who perhaps feel they master and can actively contribute only to a smaller niche within that domain.

The Influence of the Disciplines in Entrepreneurship Scholarship

Most entrepreneurship scholars appear to bring with them the community of some other "home" disciplines, be it psychology, sociology, economics, finance, or strategic management. We think that such an insight is to be expected, and for many observers of the entrepreneurship field, may appear to be rather obvious (Zahra, 2005). Yet, it is well worth noting that many of the issues that entrepreneurship scholars address are primarily oriented to core issues embedded in other disciplines. For example, if one's background and training stems primarily from the strategic management area, it would be likely that who one pays attention to, and what research issues are pursued, would come from the strategic management area. To illustrate this point, we offer a diagram, Figure 1, of the connections among joint memberships in the Academy of Management (Pearce, 2003). Every Academy of Management member has an opportunity to belong to a number of divisions within the Academy of Management, and nearly all members belong to more than one division. Figure 1 displays the connections among the various Academy of Management Divisions and Interest groups, where a line between two divisions represents a minimum of a 27% overlap in members. The "thicker" the line, the more overlap there is between two divisions, and the more lines between a division, the more connections there are between that division and other divisions. Figure 1 shows that there are two major clusters within the Academy of Management, Organization Behavior (OB) and Business Policy and Strategy (BPS), and that the "bridges" between these two clusters are Organization and Management Theory (OMT), Managerial and Organization Cognition (MOC), and Management Consulting (MC). Apropos to the discussion of entrepreneurship, the Entrepreneurship Division (ENT) is connected only to BPS. Indeed, the majority of members of the ENT are members of BPS, probably because most entrepreneurship scholars have received their training in strategy groups within existing management departments or in stand-alone strategic management departments. It is no wonder, then, that the majority of research in the field of entrepreneurship has been focused on a "disproportionate pre-occupation among contributors with issues of success and failure, survival and death, and the relative economic performance of firms" (Venkataraman, 1994, p. 3). The issues of success and failure, survival and death, and the relative economic performance of firms are issues that are the fundamental concerns of business policy and strategy.

Figure 1

Academy of Management Co-Membership
Used with permission: Pearce (2003, p. 2).



The current practice of entrepreneurship scholarship, as reflected in the activities of the Academy of Management, is therefore, a subset of business strategy (Busenitz et al., 2003). Reflecting on Figure 1, one might also wonder why there is no link to Technology and Innovation Management (TIM), which is a group of scholars working on many of the same themes as the entrepreneurship field. And, one might also consider what other research questions and methods would signify important entrepreneurship themes in the entrepreneurship field if the link to the other main node in the Academy network, OB, were as strong as the link to BPS.

An equivalent analysis could also be applied to members of the American Economics Association, or some other disciplinary group, and we would likely find that those entrepreneurship scholars are more connected to some aspect of their core discipline as well. Clearly, we do not see the influences of various disciplines on entrepreneurship scholarship in a pejorative way. It is just worth noting that most entrepreneurship scholars are paying attention to scholars outside the groupings of entrepreneurship scholars as well. Thus, when most entrepreneurship scholars talk to their own group within the entrepreneurship field, it is both to the group, as well as to others in their home discipline.

The analyses reported in the articles in this special issue reaffirm what we have observed: entrepreneurship researchers borrow heavily from their home disciplines and retain their academic loyalties to these disciplines. With the growing maturity of our research, however, it is important to give back to our sister (based) disciplines and enrich their research. Doing this can enhance our intellectual enterprise and promote effective dialogue with our peers. In turn, this dialogue can induce greater innovation in the development of entrepreneurship as a scholarly discipline. Low (2001) suggested that "Entrepreneurship research belongs in the disciplines" and "Entrepreneurship research as a distinctive domain" as two future possibilities for the entrepreneurship field, and concluded that while these two perspectives appear to be fundamentally opposed, these lines

of development are, in fact, mutually dependent. For those inclined to agree with Low's argument, the development over time revealed by Grégoire et al.'s (2006) analysis is encouraging. As regards "Entrepreneurship belongs in the disciplines," the trend in this direction is perhaps most clearly visible for Sociology in research on social networks, where co-citation of Granovetter, Burt, and Coleman comes to the fore in the most recent time period. Psychology has always had a central place in empirical entrepreneurship research, but unlike the early focus on personality, the recently emerging, cognitive "conversation" (see also Vol. 27 [2] and Vol. 28 [6] special issues of *Entrepreneurship Theory and Practice*) is reasonably up-to-date with concurrent developments in this discipline. While previously often avoided by economists—possibly because of its analytical intractability (Baumol, 1983)—it is now evident that a growing number of scholars (even in the neoclassical mainstream) realize that entrepreneurship is too important to be shunned (Bianchi & Henrekson, 2005; Parker, 2005). The latter group, however, is too separate a community to appear at all in Grégoire et al.'s (2006) analysis, which is based on the research appearing in the *Frontiers of Entrepreneurship Research*. As regards "Entrepreneurship research as a distinctive domain," Grégoire et al. (2006) explicitly make the point that 1999–2004 is the first period where the most frequently cited work (Shane & Venkataraman, 2000) is an entrepreneurship-specific piece. This work also serves as the anchor of the largest "tree" or "conversation" in their empirical analysis. Schildt et al. (2006), who focus entirely on the most recent time period, likewise find a substantial cluster of entrepreneurship-specific contributions.

From the Many to the Few—Brand Rickey

In general, it takes many scholars publishing a few articles in order to have a few scholars who publish many. Indeed, this was first observed by Lotka (1926): "... the number (of authors) making n contributions is about $1/n^2$ of those making one; and the proportion of all contributors, that make a single contribution, is about 60 percent." It has been shown to be true in most fields of scholarship that out of all the authors in a given field, 60% will have just one publication, 15% will have two publications ($1/2^2$ times .60), 7% of authors will have three publications ($1/3^2$ times .60), and so on. The entrepreneurship field is no different in this regard. While holding multiple loyalties most entrepreneurship scholars, therefore, are not transients in the field, rather, from the perspective of Lotka's law, they have made their one contribution to the field, and, that is it. Somewhat of a corollary to Lotka's Law is Price's principle of cumulative advantage:

Success seems to breed success. A paper which has been cited many times is more likely to be cited again than one which has been little cited. An author of many papers is more likely to publish again than one who has been less prolific. A journal which has been frequently consulted for some purpose is more likely to be turned to again than one of previously infrequent use. (Price, 1976)

The phenomenon of multiple publications by an author or set of co-authors, then, is actually rarer than we would like to believe. Most academic articles will not be cited at all, while only a few will seem to garner the lion's share. Finally, the entrepreneurship area is, by most measures, a small field, where there is, overall, less research published. For example, while citation rates differ for each field, the standard for a "citation classic," a most highly cited publication as identified by the Science Citation Index, the SSCI, or the Arts & Humanities Citation Index would be more than 400 times for a large field such as psychology, or over 100 citations for a smaller field. As Cornelius et al. (2006) show,

only three articles in their analysis of the entrepreneurship field reach the 100 citation threshold.

Entrepreneurship Scholarship Is What Entrepreneurship Scholars Pay Attention To

As the careful reader will note, the most recurrent quote used by the contributors to this special issue is Aldrich and Baker (1997) pointing out that the field is shaped not by those who tell others what to do, but by those who conduct interesting research that attracts a following. Consequently, we are very hesitant to offer any “call to action” as it pertains to changes in scholarly behavior in the entrepreneurship field. The articles that portray changes in the entrepreneurship field over time (Grégoire et al., 2006; Cornelius et al., 2006) seem to indicate that certain topics ebb and flow and gather or lose scholars. Whether any one particular idea, topic, or article will gain currency will depend on factors that are somewhat unfathomable. The groups/themes that these special issue articles identify are markers on a territory that is dynamic and changing. The manifestation of the visible or invisible college of entrepreneurship scholars will be whatever individuals who can “get published” and cite others, make it. It might be wise for all entrepreneurship scholars to gain more familiarity with the wide variety of topics and research that exist in the field, but, that would likely violate the most basic observation of bibliometrics offered by Zipf (1949):

The Principle of Least Effort means . . . that a person . . . will strive to solve his problems in such a way as to minimize the total work that he must expend in solving both his immediate problems and his probable future problems . . .

In other words, it may be too much to expect scholars to pay more attention to other scholarship beyond their immediate circle. This is especially true with the ever growing rate of publishing in any given area, the complexity of the review process, and the changing methodological traditions. However, in relation to the movement away from the criticized state of “Entrepreneurship as Potpourri,” Low (2001, p. 23) points out that “we must not become so exclusionary and paradigm driven that we kill the energy that has made this field so exciting.” Therefore, we hope that scholars in the field of entrepreneurship may look beyond their immediate cluster of interest to the many different themes/groups that comprise such a dynamic and growing community.

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