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Current Research on Cities and its contribution to urban studies

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ABSTRACT

This paper discusses the potential of bibliometrics—the analysis of digital information transfer—especially as it is relevant to an understanding of urban studies. It provides some examples and illustrates how the journal *Current Research on Cities* operates to provide meta-analysis of the field.

Introduction

Current Research on Cities (CRoC) is an innovation in the urban studies field. It draws upon an emerging trend of undertaking meta-analysis and of providing synthesis in fields where the generation of information threatens to overwhelm the practitioner. This overview aims to say something about the field and the ways in which the new journal is designed to contribute to it.

The importance of cities

The study of cities is in many ways a study of human development. Permanent settlements marked one of the first important transitions for humans and were associated with crucial advances in agriculture, technology, worship and other cultural practices. The very term 'civilization' is linked etymologically to the word 'city', while 'urbane' is still a synonym for sophistication.

Individual cities represent markers of social, economic and cultural progress on every continent, and we could view history as a rise and fall of different centers—Venice, Amsterdam, London, and New York have all served as pivotal economic foci in the past, and Tokyo, Taipei and Beijing will compete into the future. To the growing city comes wealth and with that come the trappings of prosperity; the breathtaking public spaces and infrastructural accomplishments that mark each age, be they the Coliseum, the Brooklyn Bridge or a new Olympic Village.

The city is thus a concrete expression of accomplishment, a magnet to which migrants are still attracted from rural areas, places where they can search for work and find better medical care and higher education. Yet it is harder to believe that "city air makes us free", as was the case in medieval Europe. Increasingly, many see the city as a place of slums and squalor, an unnatural entity that breaks up traditional bonds and replaces them with the uneasy ties of work and neighborhood. If modernity was a grand metropolitan experiment, then to some the current era is a sad reflection of our current malaise, a landscape of suburban sameness, whose automobile dependence has fueled climate change.

It has become a cliché to point out that, for the first time, our global population is now more urban than rural. While this is correct, it also hides enormous variations from nation to nation, some of which are still predominantly countries of small towns and rural production, while others are almost entirely urbanized. Some urban places are recognized universally—Athens, Rome, Timbuktu, Kyoto, London, New York. Yet others are truly anonymous: China contains innumerable nondescript places with more than a million people, for instance. For many critics of urbanization, it is this development that has shaped our planet in negative ways, destroying natural habitats and species in the process. Yet this overlooks the reality that cities are efficient places in which to live and to work, and in which to obtain goods and services—this is in large measure what Glaeser means when he writes about 'the triumph of cities' (Glaeser, 2011). These are the places where things happen—economies, government and human societies evolve for the most part in urban places and it is there that innovation occurs, remedies are tried and tested, and people interact with those that are like them and those who come from half a world away. It is in cities that we see the rewards of urbanity—and, much less positively, it is in cities that we see the concentrated perils of earthquakes, floods and epidemics. It is in cities that we have seen all manner of design experiments, and it is there that we will see the development of adaptive planning to deal with climate change—a process that will, necessarily,

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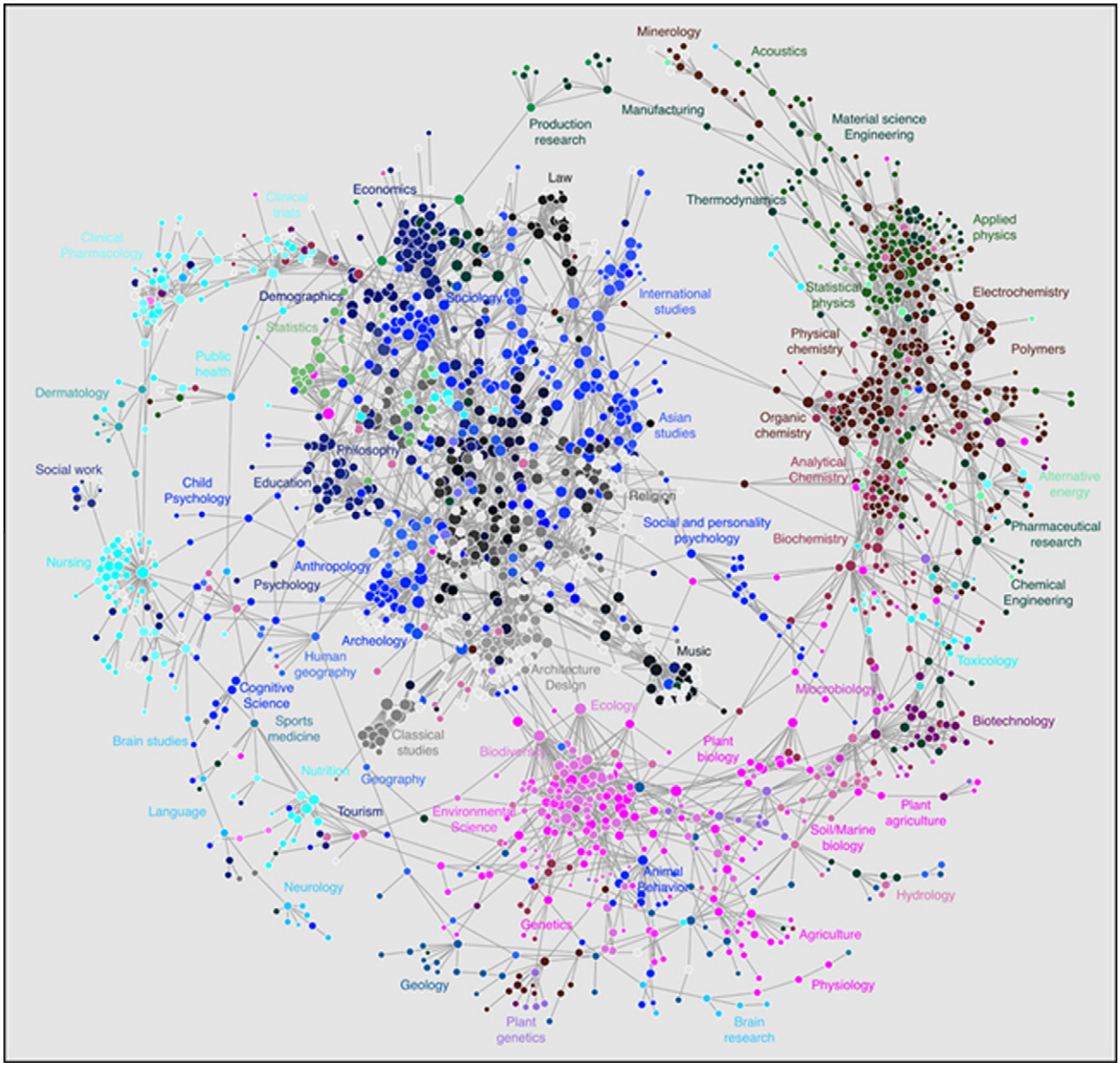

Fig. 1. The linkages between disciplines, based upon clickstream data, from Bollen et al. (2009). This is based on a dataset of approximately 1 billion user actions logged in 2006–2007 by Web of Science, Scopus, JSTOR, Ingenta, the University of Texas and California State University. This figure covers March 1st 2006 to February 1st 2007, a total of 346,312,045 user actions relating to 97,532 serial publications, mostly but not exclusively scholarly journals. The illustration is a manipulated version of the original.

manifest itself differently from city to city. The collapse of the credit markets began on Wall Street, but it is on city streets that foreclosures happen, and it is municipalities that are having to pick up the pieces.

In short, our cities are the places where abstract ideas touch down. They are manifestations of the very best [and, inevitably, the very worst] of our societies. Some of the most distinguished thinkers of the past two centuries have invested their time in understanding urban issues, from Marx and Engels, to Weber and Wirth, to Jacobs and Mumford, and through to the present; Manuel Castells, Anthony Giddens, David Harvey, Paul Krugman—all have had something important to say about the unfolding dynamics of urban life. It is for all these reasons that they always repay our study.

Yet beyond these thinkers is an army of researchers whose work has some relevance to the urban condition. This flow of material extends from art history to zoology, and while it is impossible to make sense of everything, it is the goal of this journal to embark on that vital process of synthesis.

How to approach the study of cities

When much has been said and even more done, all of this intellectual effort to understand cities remains remarkably incomplete. Perhaps a little like physicists who remain eager to find the meaning of 'life, the universe and everything' (as Douglas Adams put it), urbanists have consistently sought to understand their turf and its significance. This can manifest itself in relatively humdrum ways—in terms of census definitions of urban places for instance (see Vias, in press). But is can also involve asking complex questions, invoking what Batty calls the 'science of cities' (Batty, in press), or contemplating what Peter Hall sees as a fundamental spark of creativity that has created unique urban places—Athens, Rome,

Vienna—that have in turn defined their era and enshrined the human event (Hall, 1998).

So, in acknowledging that urban studies is a very large and amorphous field, we are faced with several different ways to decide what is urban and what is not, at least as that relates to the practice of publication. One of the traditional approaches is to develop a thesaurus of key terms in an attempt to create a thematic landscape of a field (see for example Broughton, 2006), and this deductive exercise can be a challenging way to clarify what is 'in' or 'out'.

Increasingly, though, widespread digital information transfer (coupled with computing power that continually increases), have shifted the emphasis to inductive approaches to the production of knowledge. Although these can sometimes seem like vague trawling exercises, they can in fact offer very precise and revelatory insights (see, for instance, Kirby, 2011 for a brief discussion of urban creativity). Fig. 1, for example, is a redrawn image generated by Bollen and associates at Los Alamos Laboratories. The analysis, of clickstream data, indicates the presences, absences and connectivities within the contemporary academy (Bollen, Hagberg, Chute, & Balakireva, 2009).

These approaches—variously termed scientometrics or bibliometrics—have been applied to urban studies. Liu, for example, has analyzed 38 key journals in the field, producing as a result an overview that is focusing both on journals and their content. The research indicates, for instance, the existence of four discrete urban specialty clusters, including policy, regional science and transport. While methodologically interesting, this approach is though somewhat tautological, due to its emphasis solely upon journals that contain urban content (Liu, 2005). An alternative is to examine the broadest range of journals and to concentrate instead upon papers whose authors claim urban content by their choice of keyword.

Fig. 2. Keywords in 2000 of the most frequently cited papers in the social sciences published in 2010 with urban content (keywords 'urban', 'city' or 'cities'); analysis by the author; keywords are scaled by software available at http://www.wordle.net/.

Fig. 2, for example, shows a simple exercise using SciVerse-Scopus, in which the 2000 most cited articles published in social science journals in 2010 with urban content (measured as containing keywords ('urban' 'city' or 'cities') were inserted into a word cloud program. This identifies the keywords most frequently used and displays them in dimension proportionate to their frequency. This has little analytical power but it does draw attention to keywords that do not figure as visibly in the narrower urban studies literature—such as for example 'health'. This display has prompted us to invite a key researcher in the field of urban health to produce a research overview, and we hope to include that in the next issue of the journal.

The analytical possibilities of bibliometrics are almost endless, and we will have further discussions to offer later in this Volume (Kamalski & Kirby, in press): this study shows that there are very clear differences between published urban research as it is undertaken in the sciences, the social sciences and within the core journals of urban studies. For our immediate purposes however, we can argue that this approach is as important in terms of how it drives editorial policy as in terms of the empirical results that it can generate. For most journals, bibliometrics are of relatively little importance, insofar as editorial choices are in large measure dependent upon the flows of manuscripts produced by individual authors. CRoC is different, in that much of its content is solicited, and in consequence it is important that the reviews reflect something more than the prejudices of the Editor.

This brings us to the organization of the journal, which will be discussed in the next section—first outlining the structure of the Editorial Board and then the solicitation of manuscripts.

Organization of the editorial process

There are numerous ways to conceptualize an extensive interdisciplinary activity like urban studies. One of the simplest is to identify those disciplines that have an urban subfield, such as urban anthropology, urban history, urban geography, urban economics, and so forth. However, because these tend to operate in isolation, and even in intellectual competition with each other, it is hard to cumulate their research output. Instead, we need an approach that permits us to integrate material without encouraging redundancy or even contradiction.

At the most basic level, we should recognize that virtually all branches of the academy have something to contribute to this project—from geology and meteorology through to political philosophy, there exists valuable work that can and does contribute to our understanding of the city. For efficiency, we should also look to integrative fields—such as urban ecology for an understanding of physical processes, or regional science for our understanding of urban and regional economics.

In addition, this project has a decidedly practical flavor, and so while it is important to be able to pull in research from the natural sciences and the humanities, the aim is to illuminate our understanding of urban development—in the most general sense, the challenge of creating better cities—rather than to return constantly to first principles in science and philosophy. Consequently, much of the reference material is tacitly organized through the lens of the social and behavioral sciences: this is schematically shown in Fig. 3.

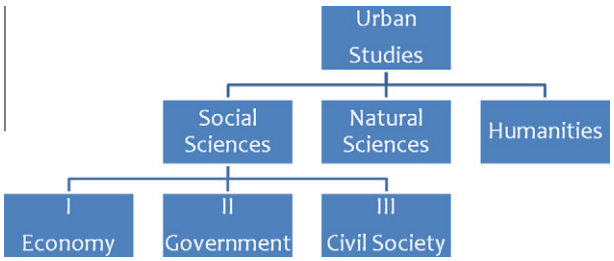

Fig. 3. An idealized schematic of the editorial process of the journal.

Fig. 3 employs a simple division that separates economic, political and social concerns. These are the fundamental heuristics of contemporary social organization. From Marx, and all those whom he influenced, we are reminded that capitalism has shaped the productive bases of society, especially since the Industrial Revolution, and has ultimately integrated them via globalization. From Weber, and his descendants such as Manuel Castells, we take the recognition that the rise of the modern state apparatus transformed the 20th century: perhaps on balance for the better, but the accounting is a long and complex one. And as reaction to the excesses of both the market and the state, we can see the emergence of more successful civil societies, a process that washes back and forth from region to region.

Economic issues drive the growth (or facilitate the decline) of almost all cities (unless they are insulated by political status, such as Brasilia). The literature divides easily into broad processes that produce global cities, or innovation clusters, or chains of migration on the one hand; and internal processes that produce land-uses, segregation and difference, on the other. Of course, any taxonomy is simply a place to start, and produces some inconsistencies, such as including public transportation with private modes, but on a global basis, this is probably about right. The same is true of public and private housing provision, but it is important to restate that these are meant only to be illustrative of the journal's interests and not a rigid principle of organization.

Moving in turn from economic issues, we can focus in turn on topics that are most associated with governance or with civil society, while recognizing again that these are never separate or isolated. In the realm of governance is the provision of services, much (but by no means all) planning, and the provision and regulation of infrastructure (including 'hard' utilities such as water, and 'soft' ones such as surveillance). Additionally, we should recognize the complex social relations that result from migration between and within cities, and the social action that responds to political and economic forces and which in turn shapes the city (see Figs. 4–6).

All of these entries are meant to be suggestive rather than definitive. While they provide a neat taxonomy, this cannot be sustained at the expense of good editorial practice. This is particularly the case with our approach to nature and the environment. Intellectually, we know that it is a mistake to separate 'the city and the country', in Raymond Williams' phrase. This dualism underlines the belief that cities are the enemy of nature, as some urban ecologists still seem to argue, and, indeed, this connects to a tradition that can be traced back to the Romantics, who were appalled by the smoke-laden cities on the 19th century. It is a mistake on all levels—for example, throughout much of the world, urban agriculture is an important source of nutrition, and recent research suggests that city parks host complex and unusual mixes of flora and fauna.

Despite all these very good reasons, we are committed here to a separate treatment of the environment in our editorial practice. That is because it is the intersection of nature and the city that constitutes the most dynamic research focus for the present and for the conceivable future. 'Water' and 'air' are the most frequent keywords in urban research papers published in scientific journals, while, in contrast, environmental topics are almost entirely absent from the urban work published in social science and urban studies journals (Kamalski & Kirby, in press). Such an imbalance demands attention and translation that cannot be accomplished by trying to airbrush away nature as an intellectual category.

It is also undesirable to maintain regional differences when thinking about 'the city'. We have, in large measure, now tran-

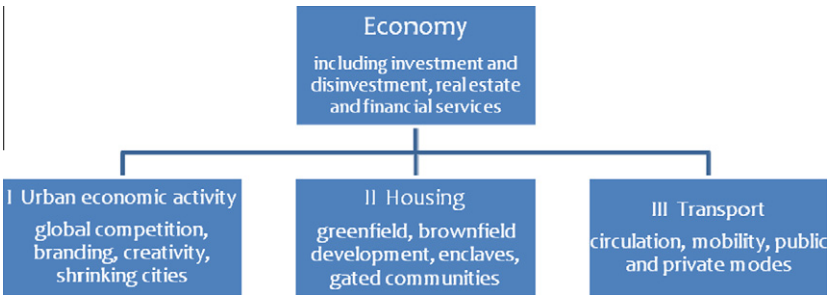

Fig. 4. An illustrative diagram of the editorial process, dealing with Economic content in the journal.

Fig. 5. An illustrative diagram of the editorial process, dealing with Governance content in the journal.

Fig. 6. An illustrative diagram of the editorial process, dealing with Civil Society content in the journal.

scended the symbolic urban landscapes that were enshrined in phrases such as 'the Islamic city' or 'the Chicago school', replacing them with integrative terms such as 'world' or 'global' cities. However, our bibliometrics suggest that we must remain editorially sensitive to place. First, China figures strongly in the scientific urban literature, but weakly in the Thomson-Reuters collection of urban studies journals. Second, Chinese research is also not routinely cited by scholars in other regions (see Kirby, 2011). Third, it is also the case that our conceptual literature remains regionally imbalanced and requires correction (see Hogan, Bunnell, Pow, Permanasaric, & Morshidi 2012). Taken together, these disparities dictate, once again, that intellectual translation and interpretation are required in order that we do not perpetuate any geographic imbalances.

Editorial structure and soliciting content

Current Research on Cities does not conform to the usual 'dendritic' model of academic consensus, in which the publisher appoints an Editor in Chief who, in turn, determines what is important within the field with the help of an editorial board and referees. This model is consistent with Kuhn's approach to science: it necessarily assumes that there is a fundamental consensus within the field about goals, methods, content and so forth, and that the basic research puzzles are agreed upon. There can be fundamental problems with this approach, as it assumes that there exists agreement about goals and accomplishments (a questionable assumption in nascent fields such as climate change or string theory), while many fields are marked by deep methodological and ideological fissures, and Kuhn rightly referred to these as 'pre-paradigmatic' as there is little basic agreement on the intellectual terrain. In such situations, it is hard for the dendritic model to operate, as different authorities advocate for different versions of the field, based on different data and different interpretations. This means that it is also hard for one set of academic personnel to represent a field, and even harder for them to produce reference material that would be acceptable to all those who might turn to it for information. This is also one of the factors that drive the emergence of increasingly specialized journals.

A research field does though not have to be defined by the subjective decisions of those working in it—it can also be determined using objective methods, drawing on different accumulations of data produced within the field itself. It is fairly simple, for instance, to tally the citations accumulated by different authors and, from there, to determine the relative strengths of different fields within a discipline, and this has been done for quite some time. With the advent of digital publication, it is now possible to move beyond these partial measures in order to determine even more precisely the intellectual content of any field, and as we saw in Fig. 1, the links between them.

CRoC currently has four Associate Editors, each of whom will provide an overview of their field in future issues of the journal.

Gordon Mulligan is responsible for the Economic dimension and Rick Feiock oversees Governance (while I am currently responsible for Civil Society). Consistent with the discussion immediately above, we also have Chris Boone, responsible for Nature and Environment, and Mee Kam Ng, who has the responsibility for commissioning material on urban issues in Asia. We are also now inviting individuals to join the Editorial Board, and the goal is to have the membership reflect the breadth and complexities of urban studies as our analyses portray it.

Each of the Associate Editors has assembled a matrix of key ideas and individual researchers whose work represents them, and we are actively soliciting their participation: the first examples have been reviewed and now follow this piece. In addition, we are able to accept significant papers that advance our understanding and we are fortunate also to have examples here by Michael Batty, Brian Berry and Richard Morrill. The initial issues (appearing as special supplements to *Cities*), will continue to present these papers, while it is our goal to broaden our coverage, and our pool of researchers, as the journal expands.

Conclusions

CRoC is hardly unique among the 200,000 journals currently in existence but it represents an innovation in the field of urban studies. We are confident that it will contribute to our understanding of the complexities of urban development, processes that now extend across the planet and which involve more than three billion people.

As a work in progress, we will be pleased to receive suggestions for manuscripts and participants; readers are also reminded that we are visible in various formats, including social media, and we look forward to incorporating different technologies into our portfolio. The journal will be successful insofar as it can be useful to its readers, and all your insights will be valuable to us.

Acknowledgments

A journal is by definition a collaborative affair and this first issue is the product of many contributors. I thank Chris Boone, Rick Feiock, Mee Kam Ng and Gordon Mulligan (who has been very supportive for over two decades). Ali Modarres has graciously encouraged CRoC as part of the *Cities* 'family', as has Deirdre Dunne, our publisher. The genesis of this project has been a complex one, extending back to a talk given by Mayur Amin in 2007 which first captured my interest in bibliometrics. I was given an opportunity to develop these ideas as an MRW at Elsevier, first by Mary Malin and then with David Sleeman, and subsequently at the journals division in consultation with Shamus O'Reilly and, of course, as always, Chris Pringle. Andrew Plume and Judith Kamalski have both been very tolerant of my wilder ideas on the technical side. Thank you all!

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