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Editorial

The semantic web, bibliometrics and *Current Research on Cities*

This is the second supplement to *Cities* bearing the label *Current Research on Cities* (*CRoC*) to be published in 2012. As it is only a matter of months since the first supplement was published, it is too soon to be able to judge the impacts of the new journal. Nonetheless, this issue comes at a complex moment with regard to STM publishing and it is a good time to restate some of the goals of a meta-journal.

CRoC was begun with the goal of providing intellectual support to those working in the urban studies field, using a model with long antecedents in the applied scientific disciplines, where there is a history of providing research updates without which it would hard to remain current in large fields (http://www.current-opinion.com/journals/default.aspx).

My mention of this model reveals me to be relatively traditional in the context of research and publication. I take it for granted that science (in the broadest sense) rests on a model of journal publication beginning in the 17th century with the formation of learned societies in Europe (and which perhaps reached its apogee with the publication of three papers in the same journal by Albert Einstein in 1905, which collectively changed the course of physics). This constitutes a complex system of scientific communication (see Leydesdorff, 2001), at the core of which is peer review, something that must be both restrictive enough to limit the flood of papers, and yet permissive of innovation. This can be something of a contradiction, as Mario Biagioli (2002) indicates in his provocative assessment.

Peer review is a perfect example of disciplinary control, a power over ideas that was once wielded by popes and which has now become a series of limits that we impose upon ourselves. Such limits can seem, however, anachronistic in a digital age, as many strive to make information transfer frictionless, by which they mean costless (and without filters, in the sense used by Chomsky in his analyses of the communication media). Wikipedia is emblematic of the collaborative possibilities of the Internet; Wikileaks is symptomatic of the belief that open access to information must be emancipatory.

Both of these examples are, though, revealing. Wikipedia is sometimes thought to be lacking in authority, and the way that it seeks to transcend that is by encouraging its contributors to provide citations for all of their claims; the finished entries are thus often not so different than a traditional research paper, which is measured, at least in part, by the solidity of its citations.

Wikileaks, on the other hand, offers the raw material, pulled from the secret sources in which it hides, so that we can read for ourselves what transpires out in the world. Yet, how many of us actually read the raw data? The vast majority of us depend upon the very gatekeepers identified by Chomsky—the analysts who have the expertise to assess what is available—in order to understand what exists in such an archive. In other words, I am describing a traditional model of expertise that provides translations for the user. Note that I emphasize 'authority' rather than hegemony, without any illusions about how easy it is for one to become the other. Indeed, one of the papers in this supplement reflects on precisely this issue. Richard Shearmuir discusses how it has become an orthodoxy that certain forms of innovation are synonymous with certain forms of urbanization: this is a salient example of how a prolific author, such as Richard Florida, can relentlessly argue a case with some supportive data, until it becomes hard to gainsay the received wisdom with counter-examples (Shearmuir, 2012). Stephanie Pincetl offers an analogous discussion in her paper in this issue on the way in which the urban world is characterized in different parts of the academy. It is also an important instance of what this journal aims to accomplish, but more of that below (Pincetl, 2012).

There have, of course, been academic fads for two millennia, but it is hard not to believe that the advent of the Internet, while providing us with a significant opportunity, also constitutes a significant challenge. The opportunity is, of course, that the transfer costs of information are close to zero, and that digital information can be readily searched. There is also a seemingly intractable challenge, namely that infinite amounts of information become impossible to make sense of.

I have become more aware of these issues since teaching a course that focuses on information. It turns out that the majority of students cannot identify reliable information, which is almost ensured by their search strategies. They use Google [perhaps Google Scholar if they are conscientious] to find material, and will then try to access the first 'hit'; but if that is not freely available as a PDF, then they will look down the list for another free resource, and if that is not on offer, they will essentially give up and try a different topic.[1] In short, students trust their search engine explicitly, even though it may not be a finely tuned weapon, and their sole criterion of choice is whether the material is instantly—and freely—available. Thus a PDF of a conference paper or working paper will almost always displace a journal article that is only available via the library's subscription to a publisher site or at a cost if downloaded direct.

The reasons for this are hardly mysterious. I overheard a student last month who was unable to remember any sites for the legal download of music or movies: for him, it was free or it didn't exist. The Internet began with a communitarian ideal [even though it was a military project supported by taxpayer dollars] that has survived and strengthened. A recent quote by hacker George Hotz captures this: "this is the struggle of our generation, the struggle between control of information and freedom of information".[2] Note

[1] This issue is well understood in the professional world of information management: see for instance: http://www.insidehighered.com/news/2011/08/22/erial_study_of_student_research_habits_at_illinois_university_libraries_reveals_alarmingly_poor_information_literacy_and_skills.

[2] Kushner, D. 2012 'Machine Politics' *New Yorker* May 7, p. 27.

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though that the traditional meaning of the phrase "freedom of information" (as in a Freedom of Information request) has been reduced to its most basic meaning—free of charge.

This belief has now morphed into attacks on STM publishers and a call for more open access (OA) journals (which together constitute the complex moment that I alluded to at the outset). These developments depend upon a different model of support, transferring the costs of publication from the publisher to the authors, who typically have to pay to have their material put into circulation via OA journals.

The inherent limitations of this alternative system are not hard to see. While pay-per-view runs counter to free-to-view, it is hardly the extortion decried by some academics (Baveye, 2010). Moreover, the graffiti model (in which the producer bears all the costs) is regressive. Those at the most prestigious research institutions in the most affluent societies with the biggest grants are the least inconvenienced by the cost of open access; in large measure much of this cost also ultimately trickles back to the tax payer.

OA also has the likelihood, over time, of restricting publication to orthodox products from established scholars in conventional fields, rather than speculative articles in the interstices of the academy. In contrast, much of the material published by 'commercial publishers' is anything but a commercial success—it is never cited, and a significant proportion is not read within five years of its appearance. Nonetheless, it is out there, and can be retrieved—perhaps decades after publication, as happened, for example, with Mendel's research.

My support for STM publishing is seemingly antediluvian but based upon sound intellectual foundations—namely that innovative academic relations depend upon complex systems of communication, a point developed at greater length in another recent editorial that is followed by two commentaries (Kirby, 2012). The latter focus on the iniquities of STM publishing but here I want to reiterate the more basic point, namely that synthetic fields—such as urban studies—must rest upon a broad base of information, which in turn demands more sophisticated search strategies than Google Scholar. These are offered by the STM publishers with search platforms such as the Web of Knowledge and Scopus.

A focus on OA and the costs of journals ignores the more pressing issue of data management that is implicit in the current era of academic information proliferation. Commentators have been arguing for a decade that we need to move to the Semantic Web, in which searches reveal the relationships within and between information, and thus reveal its significance.[3] This is proving very hard to do for the Internet as a whole, but it appears that STM publishing is leading the way.

What CRoC aims to do is to contribute to these broader patterns of scientific communication. We can see an example of this in the paper by Kamalski and Kirby in this supplement. There, we have indicated just how seriously fractured the urban conversation is within different parts of the academy (Kamalski & Kirby, 2012). In summary, we can see that there are at least three very different constituencies who undertake research and publish on urban topics—in the ISI urban journals, in social science journals, and in the applied sciences. A simple analysis of keywords indicates that there is startlingly little convergence between the three groups. This is most obvious in two contexts. First, we can see that much of the scientific research on urban areas is linked to issues with an environmental dimension, including air and water. There is a virtual silence on these topics in the social science literature, even after a decade of discussion about climate change. Second, there is a divergence with respect to methods, and in particular to scale. Social science research on cities is attentive to the neighborhood, whereas applied science work is scale-free (and most likely to be undertaken at the metropolitan level or a similar scale for which data are available).

The other issue that is important in this discussion connects to national origins. Bibliometric study indicates that while there is a global marketplace of ideas, published in a single language, that marketplace actually resembles a food court. Western authors tend to cite only other Western papers, while Asian authors remain under-cited (this literature is briefly summarized in Kirby, 2011).

This then is another context in which it is important to bridge divides, and we have ambitions in this regard. One of the papers in this supplement examines the High Speed Rail situation in Europe, the US and China (Garmendia, Ribalaygua, & Ureña, 2012). We aspire for more of these comparisons, and one of our Associate Editors, Mee Kam Ng, is actively soliciting work from China, Japan and Korea. And as Dhariya (2012) demonstrates in his monumental review, this is important, as the power and scope of Asian urban development is immense.

The remaining papers in this issue offer detailed evaluations of specific topics that the editorial team has identified as being of importance to the field. In the economic arena, we have an assessment by Krause and Bitter of measures of real estate pricing. This offers an important summary of the empirical research being published on issues such as sustainability, walkability and green construction, whose desirability is frequently asserted but is only recently being subjected to rigorous testing. Their summary indicates that consumers are much more nuanced in their preferences than the normative literature would suggest. In a similar overview, Warner evaluates the recent work on urban privatization, and finds that the claims for significant savings are also much more subtle than we are led to believe by pundits (Krause & Bitter, 2012; Warner, 2012).

In conclusion, we are excited to pull together the first volume of CRoC. We are continuing to solicit material for 2013, but always welcome material of relevance to the goals of the journal; potential contributors should contact me at the email address below.

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[3] See for instance: http://www.huffingtonpost.com/steve-hamby/2012-the-year-of-the-sema_b_1559767.html.

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