Abstract

This article reviews the recent history of journal publishing in the fields of cartography, GIS, history of cartography, and related subjects. The impact of the Internet and Web-based publishing on cartographic journals is discussed, with particular emphasis on the development of "open access" electronic journal publishing. The philosophy and guiding principles behind Coordinates as an online open-access journal are presented. An effort is made to project existing trends into the future, and to predict the direction of cartographic publishing in the coming decades.

Keywords: maps, cartography, GIS, journals, publishing, online journals, open access journals

CONTENTS

Introduction
Not so Ancient History--the Paper Era
Cartographic Journals in Transition--1990 to the Present
Enter Open Access Publications
Two Open Access Journals Dealing with Cartography: The Journal of Maps and Coordinates
Prognostications for the Future
Introduction

The launching of Coordinates comes at a time of significant change in the publication of articles relating to maps and other cartographic materials. Most of what is changing has to do with the development of Web-based publishing, but this trend is affecting different publications in different ways. This is a good time to review recent developments, and to see how Coordinates fits into the overall picture.

Not so Ancient History— the Paper Era

Five or ten years ago, the cartographic community was served by a number of publications on paper, most of which had a circulation of less than 1,000. Let us begin by reviewing the history of some of these journals. I will focus on the English-language publications with which I am most familiar. Comprehensive lists of journals dealing with maps can be found at the History of Cartography Gateway site and on Oddens' Bookmarks.

One cluster of publications deals with the history of cartography. The oldest of these is the venerable Imago Mundi (1935- ), which was (and still is) the leading scholarly journal dealing with the history of cartography. A more popular audience was served by The Map Collector (1979-96), and later by Mercator’s World (1996-2001). Regional map societies also produced newsletters and, in the case of the Washington Map Society, a more substantial publication, The Portolan (1984- ), which carries articles on the history of cartography.

A number of important publications were put out by professional organizations. Librarians in the United States were served by the Bulletin (1947- 1997) of the Special Library Association’s Geography and Map Division; by Meridian (1989-99), which was published by the Map and Geography Round Table (MAGERT) of the American Library Association, and by the Information Bulletin (1970- ) of the Western Association of Map Libraries. Several professional organizations outside of the United States also issued publications. Canadian map librarians and archivists started issuing a publication in 1968; since 1988 it has been known as the Bulletin of the Association of Canadian Map Libraries and Archives.

Surveyors and professional cartographers have been served by a number of journals, some of which have had long and complicated publication histories. Thus, the American Congress on Surveying and Mapping has long published what is now known as the ACSM Bulletin (1981-). A related publication--now co-published by the National Society of Professional Surveyors, the American Association for Geodetic Surveying, and the Geographic and Land Information Society--was first known as Surveying and Mapping, became Surveying and Land Information Systems (1990-2001), and is now Surveying and Land Information Science (2002- ). A member organization of the ACSM, The Cartography and Geographic Information Society, published The American Cartographer (1974-1989), which later became Cartography and Geographic Information Systems (1990-98), which is now known as Cartography and Geographic Information Science (1999- ). Information on these publications is available at the ACSM Website. In addition, the British Cartographic Society publishes The Cartographic Journal (1964- ).

There are also several publications aimed primarily at GIS Users. GIS World (1988-1998), now Geoworld

Several publications bridged disciplinary boundaries. *Meridian* published a substantial number of articles dealing with the history of cartography, GIS, and general mapping, as well as on map librarianship. *Cartographic Perspectives* (1989- ), the publication of the North American Cartographic Information Society (NACIS), included a mix of articles dealing with libraries, GIS, and other more technical subjects. Finally, the Canadian publication *Cartographica* (1980-, previously *The Canadian Cartographer*) offered a mixture of scholarly articles on various subjects related to maps, particularly focusing on the history of cartography and on technical subjects, such as map design and symbolization.

**Cartographic Journals in Transition—1990 to the Present**

Most of the publications described above still exist, although some of them have changed their titles, or have altered their format or character. Several publications have fallen by the wayside, but there have also been new startups. Technological changes account for some, but by no means all of these changes. Let us take a look at what has happened to individual titles and to groups of titles.

Starting with the history of cartography, the publishers of *Imago Mundi* have recently signed an agreement with major publisher (Routledge), which will be distributing the publication. As part of this agreement, the journal will increase its publication schedule to twice a year, and Routledge will produce and market an online version of *Imago Mundi*. Not surprisingly, you cannot get access to the online version unless you subscribe to the paper journal (or belong to an institution which subscribes to it). This is standard practice for commercially produced journals, since publishers understandably do not want to undercut the paper sales of their journals by making the content available for free online. The appearance of online editions of these paper journals is largely a response to the strong demand from faculty and students for online access to research journals. In addition, the back issues of *Imago Mundi* are being made available on JSTOR. Since JSTOR makes it possible to search through entire runs of its journals by keyword, this will be a great boon to those scholars who have access to it through subscribing institutions.

The more popular publications on the history of cartography have encountered serious survival problems. At first sight their difficulties seem somewhat surprising, since they appeal to a larger audience than the more scholarly journals. Their potential readership includes relatively large groups of map collectors and map buffs of various persuasions. At their most successful, these publications have had several thousand readers, as opposed to several hundred for the academic journals. But glossy popular magazines are expensive to produce, and no one is going to get rich publishing a magazine with a circulation of 2,000-3,000. The market only seems to be able to support one full-blown journal. *The Map Collector* went out of business almost as soon as *Mercator’s World* came on the scene, albeit the publisher was reportedly ready to retire in any case. The demise of *Mercator’s World* nearly coincided with the death of its editor--there appears to have been no one else interested in taking on the unremunerative task of continuing the publication.
The people served by these publications have not been left entirely without reading material. Map collectors still have the *IMCoS Journal*, the Journal of the International Map Collectors Society, which has recently expanded its newsletter to resemble more closely a general interest magazine. Map collectors often meet in groups with a regional focus, and their interests continue to be served by *The Portolan*, as well as by the newsletters of regional map societies.

The one attempt to create an online periodical for map collectors has been *MapForum* (1999- ), which has an interesting publication history. After a long pause in publication, its editor has recently converted it to a quarterly printed journal, with the first issue appearing in spring, 2004. The new *MapForum* may become the functional successor to *Mercator's World*. It is possible that online publication is not well suited for this particular audience. Many people like to peruse newsletters and magazines at odd moments without having to turn on a computer. Nonetheless the editor intends to take advantage of both modes of publication, with portions of the paper journal being made freely available online, and with other materials supplementing the paper publication being restricted to subscribers.

Another group of map publications to suffer travails are those of professional librarians, at least in the United States. Two of the most notable publications in the field, the SLA Geography and Map Division Bulletin and Meridian, have ceased publication in recent years. Both journals were beset by an inability to find sufficient articles to publish, and were also unable to find willing editors. There are a number of reasons underlying their problems. The most obvious is the fragmentation of librarians into several national and regional organizations, which has led to their publishing efforts being dispersed. There may also be more subtle causes at work. At least some of the need for communicating in paper has been displaced by listservs and Web pages. Also—although it is hard to prove—it appears that scholarship and publication have gradually become less important for academic librarians in quest of tenure. At present most library organizations publish newsletters, such as MAGERT’s *base line* and the *Information Bulletin* of the Western Association of Map Libraries (WAML).

The one journal still published by a professional organization in the U.S. concerned with map librarianship is *Cartographic Perspectives*. It may owe its survival in part to the fact that it appeals to a wider audience than just map librarians. However, journals continue to be published by the Australian Map Curators’ Circle and the Groupe des Cartothécaires of LIBER (the European Library Association).

One of the most notable recent developments in publication on map librarianship is the appearance of *The Journal of Geography and Map Libraries* (JMGL). This publication was started by a group of map librarians in part (one would surmise) to fill the void left by the cessation of the journals of the Special Library Association and the ALA Map and Geography Round Table. Because this journal is produced by a commercial publisher (Haworth Press), it is able to draw on the several organizations dealing with map librarianship for both content and editorial staff. Since Haworth makes its journals available online to subscribers, one would assume that this will be the case with JMGL. Thus, this journal will be following a path similar to that of *Imago Mundi* and many other academic journals.

There has been a good deal of experimentation with partial online publication in the library community, although there has been some reluctance to abandon the paper format completely, since receiving a publication is often one of the major benefits of membership in a professional organization. Professional
organizations, like commercial publishers, are rightly concerned about the effects of open access online publication on their base. WAML has taken the solution of adopting a completely electronic format for its newsletter, *Electronic News and Notes*, while at the same time issuing its more substantial *Information Bulletin* in paper.

There are other signs of creeping digitization in the publications of map librarians. Back issues of *base line*, the MAGERT newsletter, are being made available in electronic form. NACIS is now making the tables of contents of its journal available online, along with some selected articles. The association of European map librarians within *LIBER*, is republishing online articles from its quarterly journal, with a one year lag from their initial publication.

The publications of professional organizations dealing with surveying and map making have been relatively stable, although their content has changed dramatically, reflecting the rise of GIS and other forms of digital mapping, as noted in the previous section. Several of these journals, including *Cartography and Geographic Information Science*, are now available online to members. The addition of the word "science" to the titles of several of these journals, although peripheral to the subject of this article, is an intriguing development. This reaffirmation of the scientific character of cartography paralleling the rise of computerized mapping comes at the same time as many historians and social scientists are questioning the traditional scientific model of cartography.

Finally, *Cartographica* is in the process of reorganization. Although *Cartographica* is one of the most esteemed scholarly journals dealing with maps, it has had more than its share of problems finding subscribers and editors, and has fallen behind its publication schedule. Recently its editorial board has been drastically reorganized, and its new team of editors has decided to introduce a section entitled “technical notes and ephemera,” which will be a mélange of brief articles of professional interest. Apparently there are no plans for *Cartographica* to go online.

**Enter Open Access Online Publications**

The year 2004 has seen the entry of two online “open access” publications dealing with maps. An open access publication is usually defined as one that is available without charge to anyone via the World Wide Web. Although this is a new approach to publishing for map journals, the open access model has become fairly widespread in some other disciplines. There are now more than 1000 open access publications listed in the international Directory of Open Access Journals (*doaj*). This model is being pushed by research libraries and some professional organizations as an alternative to extremely expensive paper journals, especially in the sciences. The most visible organization advocating this mode of publication is *SPARC*, an initiative of the Association of Research Libraries. Some enthusiasts think that this will become the predominant mode of scholarly publishing within the next twenty years.

There are pros and cons to open access publication. The disadvantages are primarily financial. Commercial publishers are understandably alarmed at the potential of open access publications to undermine their readership and profits, and thus to end their ability to charge sometimes extortionate rates to academic libraries for subscriptions. As previously noted, professional organizations could also be hurt by this mode of publication—both through loss of subscription and advertising revenue gained from paper publications, and
through the loss of a major membership benefit.

Some of the other arguments against open access publications are, I think, spurious, and have mostly been dragged out by commercial publishers whose real concern is with protecting their own profits. One of these is the alleged lack of permanence of digital publications. To counteract this, advocates of open access publications have developed a variety of schemes for archiving and backing up digital publications. They can point to models like JSTOR, which is actually being used to preserve and make accessible back issues of paper journals in online form.

Another spurious argument that is sometimes paraded out against online journals is their alleged lack of rigorous scholarly standards. While it is true that virtually anybody can put up anything on the Web, this has no bearing on the quality of Web-based scholarly publications. Exactly the same review procedures can be adopted for online as for paper journals. One of the objectives of the SPARC initiative is to promote high scholarly standards in online journals. Still, the perception exists on tenure committees that paper publication is somehow more meritorious than online publication—although this may be changing.

Another argument that one frequently hears is that “nobody wants to cuddle up with an online publication in bed,” or words to that effect. This is possibly a valid argument for newsletters and popular journals, which may be read through from cover to cover, or repeatedly consulted at odd moments. It is certainly true for books. But I do not think it applies very strongly to online journals. Few people, I suspect, read entire issues of scholarly journals from cover to cover. Generally scholars want to search out articles on a particular subject, and photocopy or print them off for careful reading and underlining. This can be done more easily with online journals than with paper journals, which usually have to be sought out and photocopied in a library.

Counterbalancing these real or alleged disadvantages, are several important advantages of online open access journals. First and foremost is their easy availability. Open access journals are freely available to anyone with a connection to the Internet. This is a boon to independent scholars without institutional affiliations, to smaller academic institutions that cannot afford to subscribe to an extensive array of specialized journals, and to institutions in the Third World, many of which could not conceivably obtain this information in any other form.

An additional major advantage of online publication is its ability to make use of such features of the Internet as hyperlinks and high-resolution color images. These are important advantages over the paper plus online access model followed by journals such as Imago Mundi. Being able to present or link to high-resolution digital images of maps is extremely useful. Also, it is possible to update changed links in online publications, which cannot be done in paper journals. The quick obsolescence of URLs cited in paper journals has been widely noted as a serious problem for scholarship.

Not to be overlooked is the relative speed and ease of online publishing. Articles can be sent to reviewers by e-mail. Editors, reviewers, and authors can communicate with each other easily using the same means. It is much simpler to code and display an article online than to go through the cumbersome process of publishing in paper. Authors can make their revisions and corrections in electronic form, and they can review the final formatting online before it is presented to the public.
Two Open Access Journals Dealing with Cartography: The Journal of Maps and Coordinates

This year has seen the launch of two new online open access journals dealing with cartography. The two publications are remarkably different in the ways they approach the problems of publishing on the Web, and are so different in focus that there is likely to be little competition between them.

*The Journal of Maps* aims to provide a forum for professional cartographers and geographers. Based in Britain, it is a peer-reviewed journal with an editorial board made up primarily of academic geographers. It plans to publish short, specialized articles, and intends to make full use of the ability of the Web to convey high-resolution color images. This journal is funded in part by a charitable foundation, but a major source of its income will be modest fees charged to authors. This method of funding a publication will probably seem strange to many with a background in the humanities and social sciences, where authors sometimes even receive a small honorarium for their articles. But in the natural sciences charging authors is fairly routine, and it is commonly practiced by some of the journals that have a reputation for gouging libraries.

*Coordinates* has a very different agenda. Although it is published by a professional organization made up of map and GIS librarians, it is intended to serve a broad audience, which might be defined as curators and users of map libraries. Reflecting this agenda, our board of editors includes specialists in the history of cartography and academic geographers, as well as librarians specializing in maps and GIS. Our mission is thus similar to that of *Meridian*, the paper journal formerly published by the ALA Map and Geography Round Table. Our plan is to publish articles on a wide range of subjects relating to maps. One section of the publication will be devoted to peer-reviewed scholarly articles. Another section will contain shorter pieces, which will undergo a more informal review process. Judging by the interest shown so far, the journal’s primary areas of concentration will be map librarianship, history of cartography, GIS, and Internet mapping.

The precise content of the journal will depend in part on what people submit, and may evolve over time. We are willing to publish anything relating to cartography, provided it is deemed to be accurate, of sufficient quality, and of interest to at least some of our readers. The thinking behind this eclectic approach is that most users of the journal will only want to read selected articles. Thus, there will be articles of broad general interest (such as the piece by David Rumsey), along with specialized technical articles that may be of interest only to particular groups, such as map catalogers, GIS specialists, or those interested in the technical issues of map design. We will depend on careful organization and detailed indexing to make it easy for readers to find what they want.

This broad agenda means that *Coordinates* potentially overlaps in content all of the periodicals discussed above. Authors who want to publish articles about maps in paper still have many places where they can do so. The main differences between paper journals and open access online journals have to do with form of presentation and availability to readers, as discussed above. Authors will have to weigh the pros and cons of the two media for particular articles when choosing where to publish. Where permission can be obtained, we will gladly consider publishing articles presented at conferences or published elsewhere in paper.

A word should be said about how this journal is financed. Authors will be pleased to hear that they will not be charged for publishing, but neither will they be paid. As of now, *Coordinates* is produced on a completely volunteer basis. On both sides it is a labor of love and love alone. Although it is possible for an
online journal to subsist on nothing but love, we are also looking into the possibility of sponsorship or accepting advertising. Any revenues would be used to pay for such ungratifying tasks as copy editing and html coding, and to compensate MAGERT for the loss of income that comes from not publishing a paper journal.

**Prognostications for the Future**

Given the track record of prophets in general, any attempt to predict the future of cartographic journals is likely to fail, but that is no reason not to try. Some of the advocates of open access publishing think (or hope) that it will become the primary mode of publishing scholarly articles within the next few decades. I am not so sure they are right, but it is a fairly safe bet that there will be even more online publishing in the future.

Publishing in paper only seems most likely to be viable for newsletters and popular publications, although I expect that more of them will appear in digital form, or at least make their back issues available online. The two competing models for scholarly publications will be open access, and paper plus online with access restricted to subscribers or members of subscribing institutions. Given the immense popularity of online publications on campus, I would be surprised if there were any “paper only” scholarly journals twenty years from now. Member organizations and possibly some commercial publishers may want to give serious consideration to the LIBER model of publishing first in paper, but with open access online editions following with a time lag of a year or so.

This writer obviously has a preference for open access journals over publications that make information available only by subscription. As a librarian, I tend to view the contest between the two modes of publication as a battle between freedom of access to information and greedy capitalism. However, as an historian I cannot but notice that greedy capitalism has been remarkably successful over time, and I would not be surprised if commercial publishers of scholarly journals find ways to continue to thrive and prosper. However, one may hope that the alternative provided by open access publications will at least force journal publishers to keep their greed within reasonable bounds.