NASIG Issues and Trends
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I. Getting Started

NASIG emerged in response to the need for communication and sharing of ideas among all members of the serial information chain. Its members are serials librarians, serials publishers, subscription agents, representatives of bibliographic utilities and library science educators-in short, all parties interested in serials in the United States and other countries. NASIG's goals are parity of membership, organizational breadth and sharing of ideas and general principles.

Leigh Chatterton and Mary Elizabeth Clark wrote this in their introduction to the proceedings of the inaugural conference of NASIG, "Serial Connections: People, Information, Communication," held at Bryn Mawr College, 22-25 June 1986. That first conference dealt with aspects of serials automation and standards, online public access catalogs, the future of serials from the publisher's perspective, and serials pricing. There were five workshops dealing with serials cataloging, automation of serials operations and binding, serials operations using microcomputers and serials education of librarians.

Move on to the tenth annual conference, "Serials to the Tenth Power: Tradition, Technology, and Transformation," held 1-4 June 1995 at Duke University. Discussion of technology and transformation abounded: there were three plenary sessions discussing the impact of electronic publishing on the dissemination of information and the future such dissemination, copyright law, and Internet security. Three concurrent sessions covered a variety of projects in electronic publishing by libraries and publishers and the perspectives of editors of electronic journals; challenges to serials professionals including how to manage change and transition; and cataloging and issues of controlling access to electronic resources. And there was more! Twenty workshops covering yet more about electronic journals and individual libraries' responses to them, e.g., managing change and workflow issues; education and training; vendor and publisher relations with libraries; document delivery; and preservation of print formats.

Now jump to 2004, the nineteenth annual conference, "Growth, Creativity, and Collaboration: Great Visions on a Great Lake," Milwaukee, Wisconsin, 17-20 June 2004. There were three pre-conferences on cataloging, on serials-related jobs in and outside of libraries, and on budgeting and decision-making. In the conference itself, three "vision sessions" dealt with the role of libraries, the "big deal" in serials pricing, and alternative models of scholarly publishing. Eight "strategy sessions" covered society publishing, electronic resource management, quality of scholarship, licensing, open access, pricing models, hidden costs of e-journals, and the professional image of librarians. Nineteen "tactics sessions" covered topics such as the most recent changes to AACR2, e-journal changes and access, collaboration between vendors and libraries, collaboration between libraries and faculty, Open URL, ISSN, FRBR, licensing, and print depositories.

Clearly, we have had a lot to talk about.

And as we head toward the 20th annual conference, the discussions continue unabated. Looking back, the hottest topic was and is pricing, which may possibly be more heated now than it was twenty years ago. The notion of electronic journals was discussed at the first conference, but they had yet to become a full-blown reality; by 1995, however, the impact of electronic publishing was very much being felt. Scholarly communication and the future of serials and scientific publishing were also discussed in 1986 but have become even larger issues to contend with as electronic journals and other digital resources became prominent and took over "business as usual."

However, before electronic journals became a popular notion, the desktop computer was making itself known-the digital world was taking hold as catalogs were automated, affecting cataloging and public access to library resources. The "integrated library system" became a necessity for controlling the vast and ever-increasing wealth of information. Consequently, standards in cataloging, automated transfers of data, and other management issues became more urgent as the pace of change accelerated. Electronic data interchange (EDI) and electronic resources management (ERM) are but two of many born-digital areas in which standardization is now being sought.

The change from a print world to a primarily electronic one has necessitated wholesale changes in workflow within libraries and between them. It has changed the relationships of libraries with publishers and vendors, not to mention between the publishers and vendors themselves! Education and hiring have become issues, too. Technological change has introduced a complexity that has forced a fundamental change in the way librarians are educated and in the expectations harbored by institutions and companies who are hiring them.

The real strength in NASIG has been the willingness of all parties involved to come together to discuss all sorts of issues, as exemplified above. Its very essence is the people. "Collaboration" is a word that gets used a lot and for good reason. Libraries, vendors, publishers, and other interested participants rely on and build upon their relationships with one another in order to meet common goals from different perspectives and to create workable solutions to a variety of problems.

In this online document, we present a more detailed look at the issues and trends that have influenced NASIG and that have been addressed at the annual conferences–if you will, a look back even as we look ahead to the next twenty years and beyond….

II. The Cost of Information

These days it's difficult to separate issues of pricing (and other monetary issues) and scholarly communication from each other or from the context of electronic resources. However, pricing was prominent at the first NASIG conference, before electronic journals became ubiquitous, but just as computers were beginning to be used for controlling library functions.

At the first conference, pricing was a dominant focus, particularly the "two-tiered" model prevalent in the United Kingdom (U.S. prices vs. prices for the rest of the world). Four of the five presentations on the issue were part of a themed session called, "The Bryn Mawr Teaparty: 1776 Revisited." A librarian, a publisher, and a subscription agent offered their perspectives, exemplifying the founding tenet that all players in the serials information chain have insights that need to be shared.

Pricing was not a main focus at all conferences, but it has been addressed in some form at all of them. For the purposes of this review, funding, budgeting, and publishing costs have been included in this category, but these are few relative to the typical treatment regarding pricing models and practices and their perception by librarians, vendors, and publishers. Cancellations and budget cuts were topics for discussion at the second conference in 1987 and resurfaced at the fifth conference (1990) and the eighth (1993). After that, talk about budgeting generally shifted to analyses of cost effectiveness of processes like claiming and of alternative formats such as cd-rom and online journals, as well as to funding models used by individual institutions.

The fourth conference in 1989 contained a themed session called "Organizational Responses to Journal Pricing Issues: Plans for Action," which included a presentation on the ARL Serials Initiative and a scientist's perspective on the issue (representing perhaps the most overlooked link in the serials information chain, the reader/researcher).

Canadian librarians reminded their U.S. counterparts in 1990 that pricing is an issue everywhere and presented their responses to the problem. Exchange rates (and to a lesser extent, postage rates), which were discussed at the first conference, became prominent again in 1990 and 1994, as well, but since then have not been a focus of attention.

The sixth conference in 1991 had only one presentation that focussed on costs, a workshop discussing publisher discounts to vendors and how vendors set service charges. The prime topic that year was technology (although one plenary presentation did mention an effect on costs). Since 1991, technological issues have colored the tone of the debate.

III. The Electronic Environment

In the context of pricing and costs, electronic publishing was first mentioned in 1987 in a workshop on dealing with serials cancellations and budget cuts. As a major player, however, the "electronic library" was first mentioned in 1993; this discussion also included the access vs. ownership issue. Although there was some grumbling in the mainly non-electronic world of 1988 about the "repurchase" of information, in which a researcher transfers copyright to a publisher, who then makes that information accessible only by purchase by the researcher's institution, the beginning of what many members of NASIG will recognize as the debate on Open Access occurred in 1996 with a plenary session that discussed scholarly communication, electronic journals and pricing, and what was termed the "Faustian Bargain." It was argued that the Internet should be kept free and that research funding should pay for the publishing of findings in refereed journals. The growth of electronic journals has been seen to exacerbate the problem. In many

respects it has become nearly impossible to separate pricing (and Open Access) from issues in scholarly communication because both are so tightly bound now to electronic dissemination of information.

A further variety of issues surrounding the electronic environment include discussions about consortia, such as OhioLINK, and the ways in which they can be used to provide access to materials in continuing times of shrinking budgets. The OhioLINK model was first discussed in 1997, with a follow-up report in 2000. Other discussions include the serials "revolution" as exemplified by Project Muse and the Institute of Physics electronic journal programme, both reported in 1996; a series on scientific, technical, and medical (STM) pricing that took place in 1998, with agent and publisher perspectives; PEAK (Pricing Electronic Access to Knowledge) in 1999, with presentations describing the short-term article delivery and pricing study by Elsevier and twelve libraries; SPARC (Scholarly Publishing and Academic Resources Coalition), in 2000, which further expanded on earlier STM discussions and introduced a low-cost competitive model to scholarly publishing; and BioOne, also in 2000, which, with SPARC, several academic libraries, a scholarly society, and a publisher, served (and still serves) as a cooperative model to promote options in the delivery of current scientific research.

In the last two to three years, Open Access and the Big Deal, in conjunction with shrinking budgets and ever-growing demand for more and faster electronic access to materials, have led to more debate over funding models, "just-in-time" vs. "just-in-case" document delivery and collection development discussions, questioning about the costs, hidden or otherwise, of the production and processing of journal articles, and how publisher and agent mergers have affected pricing. Experimentation, such as tiered models based on FTE, type of library or institution, print with electronic add-on, online subscriptions with print as an add-on, etc., continues as technology and user demands change.

Electronic publishing (mainly in the context of cd-roms) was mentioned at the first conference twenty years ago but not in the context of pricing. Rather, it was brought up in the context of the future of journal publishing, i.e., scholarly communication. In 1986, there was already a noticeable increase in science publishing. The promise of computer-based change was being heard-the ability to store and manipulate large amounts of data, the prospects of digitizing of textual material, and the phone and satellite transmission of data-and the implications for full-text online and electronic document delivery were beginning to be enthusiastically discussed. The promise of cd-roms was explored in 1989 in a session entitled "CD-ROM in Libraries: Revolution or Revolt?" Access, the impact on reference services, and user education were discussed, but even early studies and presentations such as these considered the technology as part of an "evolution" and predicted an increase in the use of electronic products as technology continued to develop and progress.

Scholarly communication in and of itself has been a subject of dialogue since the beginning of NASIG as well, but it became a primary focus at the fourth conference in

1989, with a session of five presentations under the rubric, “The Process of Scholarly Communication.” Different facets of the topic were discussed, including the environment of increased academic specialization (in all disciplines, not just the sciences), the “publish or perish” pressure that many faculty faced then (and still face now), the role of the editor in the humanities, expectations of fast (and electronic!) access in the sciences, and the emerging roles of university presses, libraries, and technology.

At the fifth conference in 1990, the peer review process came under scrutiny. Presentations included the results of a FASEB (Federation of American Societies for Experimental Biology) survey of attitudes, perceptions, and expectations about the process, the role of the editor, the importance and relevance of peer review, and potential bias in U.S. medical journals.

It became clear at the sixth conference in 1991, however, that scholarly communication and electronic publishing would be inextricably linked, with two plenary sets of the themes, “Changing Technologies” and “Changing Information Worldwide.” In the former set, it was noted that technological advances had made it easier to be aware of not-yet-published research, to have access to research that had just been published, to search the literature for historical data, and to collaborate on projects from a distance and across international borders. In the latter session, international cooperation and the globalization of research comprised the focus of discussion, including the effects of politics and information technology in the European Community, Russia, and Latin America.

The ease of access that has developed with electronic resources in the last ten years, especially with the introduction and quickly grown popularity of the World Wide Web, brought to a head the “access vs. ownership” debate, which is exemplified in the discussions surrounding copyright and licensing. These discussions have taken place since 1988, at first focussing on fair use and interlibrary loan, with some speculation about the potential impact of electronic distribution. At the time, however, photocopying was the main concern. Concerns regarding electronic media such as cd-roms, tapes, and networks were brought up in 1992, with questions about licensing of access and debate about ownership and copyright of works in the public domain. In 1993, it was noted that the phrase “fixed in a tangible medium,” found in the Copyright Revision Act of 1976, had not been adequately defined for electronic resources. In 1995, fair use came up again in a themed session called, “Copyright Camp: Electronic Fair Use in the Crossfires.” And in 1996, the subject was discussed again under the title, “The Great Debate over Copyright in the Electronic Environment.”

Licensing was also heavily discussed in 1996. “Issues in Electronic Licensing” brought a presentation of specific clauses and issues in licenses and their implications, including their relationship to economic models and pricing. Since then licensing has received greater emphasis, particularly since issues that are addressed in copyright law are usually included in a license contract, although the Digital Millennium Copyright Act was treated in 2000, and UCITA (Uniform Computer Information Transactions Act) was discussed in 2001.

The possibilities of outsourcing the licensing process to vendors was first broached in 1999 in a session titled, "…And I'll have that Order with a License on the Side, Please." Value-added services such as maintaining IP information and providing a single point of contact for troubleshooting were discussed. It was brought up again in 2001 from both the vendor and publisher perspectives.

Several discussions about licensing, in 1997, 1999 and 2001, have been from the library perspective and comprise a variety of step-by-step explanations of the process. In 2004, three publishers presented their perspective on site licenses, with emphasis on responding to challenges and dissatisfaction from libraries. Also in 2004 was the first focussed presentation on resolving license breaches.

Electronic journals changed the environment not only for scholarly communication, but also in the operations of the library itself. Other issues that NASIG has addressed in the context of electronic resources are document delivery, reference services, archiving and preservation, and electronic resources management.

Document delivery in the electronic environment was first discussed in 1988 with a description of ADONIS, a service for the delivery of biomedical articles that were stored in a central facility on cd-rom. Similar systems and related issues were also described in 1993 and 1994. The whole issue of interlibrary lending was also dealt with on more than one occasion: in 1992 in a session called, "Article Delivery: An Alternative to Ownership?" and in 1997 in a session titled, "Electronic Publishing: Between Two Poles." Publishers and vendors have not hesitated to put forth their views on the matter, especially as they pertain to copyright. Other discussions have included comparison of efficacy of delivery of physical item or copy, fax, and online delivery. Email alert and desktop delivery systems have also been presented.

The effect of electronic journals on the public or reference services environment has been noted, although it has not been discussed as extensively as other issues, perhaps because serials librarians tend to be viewed as belonging in technical services departments. Nevertheless, electronic journals and online databases are the tools that students and researchers use, every bit as much as print journals and indexes had been in the past, and reference librarians are the library's liaisons to those users. The impact of e-journals on "traditional" library services was first discussed in 1991 and came up again in 1997 and 1999. In 2000, the electronic delivery of information was described in terms of "disruptive" technologies, acknowledging the difficulty of keeping up with constantly changing hardware and software. In 2002, the new roles and workflows that public services librarians have had to take on were also described.

Archiving of electronic materials has been related to the ownership debate. Since 1996 the questions have been asked, "Who owns what? For how long? Who stores it? And how?" In 1997 this was brought into focus under the theme, "The Electronic Archive: Two Views," in which the library and publisher perspectives were presented and which showed the scope of the problems involved with implementing archival

systems and the potential maintenance costs. In 2003 the issue was called "The Digital Preservation Conundrum" and discussions revolved around copyright and licensing, the dynamic nature of the material and the changing needs of users. It was also argued that the necessary infrastructure is still not in place.

Issues of providing e-journal access first came up in 1988 and electronic subscriptions were discussed in 1990. From then on, many individual workshops have been presented on local practices for dealing with electronic resources. Occasionally, a larger session emerged, including in 1995, "Visions for a New Decade of 21st Century Serials," and in 2000, "Bridges over Troubled Waters: Techniques for Managing the Impact of E-Serials." One particular problem in e-resource management has been usage statistics. Guidelines from ICOLC (International Consortium of Library Consortia) were first discussed in 1998, and since then there have been presentations of local practices for counting usage, as well as a discussion in 2003 on standardization, including NISO Z39.7 and COUNTER. In 2004, progress on standardization of the whole process of electronic resources management by the Digital Library Federation was presented.

IV. Standards

Quite some time before electronic publishing became entrenched, the electronic handling of library materials, i.e., automation, was a big area of contention. Automation issues were becoming important in the decade before NASIG's founding as institutions were converting and adjusting to the new technology and to the available products and systems for the electronic manipulation of bibliographic data for public access, circulation of materials, and management of processes. In a 1985 survey reported at the first conference, 88% of responding libraries had online public access catalogs (OPACs), but only 18% had automated serials control systems.

NASIG was formed in the midst of these changes, so it was natural for the topic to be included in the first conference, which held the greatest concentration of presentations on automation. In fact, of the twelve papers and five workshops of the first conference, six papers and four workshops were concerned in some fashion with serials in an automated environment. Issues of serials control, such as bibliographic control, access, and holdings standards and how they could best be displayed and handled in an automated environment, were discussed, as were concerns with display in the OPAC and the possibility of greater visibility of acquisitions and holdings data which previously were not readily available to the public or even to staff outside of acquisitions and serials departments. After 1986, automation came up mostly in workshops that dealt with aspects of purchasing a system, with emphasis on communications with systems vendors and writing specifications, as well as workflow and implementation.

Automation as a subject in and of itself seems to have been last discussed in 2001, with a presentation about issues involved with migrating from one integrated library system to another. It has given way to discussions about standards, especially standards for providing comprehensive and comprehensible interfaces between otherwise disparate proprietary systems (i.e., those that have grown from the earlier activity of automating to begin with).

That is not to say that standards did not exist prior to automation. They did, as any cataloger will testify, but the proliferation of systems and the globalizing effect of electronic control and access have made standards crucial for the effective and efficient conduct of business and public service in libraries.

At the first conference, discussion of standards revolved around serials holdings, particularly the MARC Format for Holdings and Locations, ANSI/NISO Z39.44-1986 and other Z39 standards, and the SISAC (Serials Industry Systems Advisory Committee) symbol incorporating ISSN information. The push for standardized holdings was posited as really beginning in 1974 with CONSER (the "CONversion of SERials" project, renamed in 1986 to the "Cooperative ONline SERials" program). The original impetus for the program was an effort to create a national serials database-in effect a gigantic union list. In those pre-electronic days, a centralized means of gathering and displaying holdings data meant a boon for ILL services. Now in these times of electronic resources, the standards that have evolved have facilitated the exchange of bibliographic and holdings information between publishers, vendors, and libraries.

The first conference in a sense set the agenda for discussions about standards. The MARC Format for Holdings Data (MFHD) has made fairly regular (but not annual) appearances as it and its related NISO standard, Z39.71-1999 (which itself grew out of Z39.44-1986), have evolved and expanded. These frequent presentations about MFHD have included background and developmental progress reports as well as workshops on how to implement the standards as they existed at the time of each discussion. (MFHD's most recent NASIG appearance was in 2002, with its use in CONSER's Publication Pattern Initiative.) Other Z39 standards have been discussed fairly regularly since the fifth conference in 1990, particularly Z39.1 (Periodicals: Format and Arrangement), Z39.50 (Information Retrieval: Application Service Definition and Protocol Definition), and Z39.56 (Serial Item and Contribution Identifier, or SICI).

The SICI and its manifestation in the SISAC symbol (barcode) made regular appearances from 1986 through 1998. It was of particular interest in that it bridged various issues related to serials holdings. It incorporated the ISSN and specific issue enumeration, and is capable of holding article-identifier in it as well. And because the barcode containing the information is inherently machine readable, it was increasingly touted as an ideal tool for serials check-in in libraries and for electronic transmission of claims information between libraries and agents, as well as agents and publishers. From 1993 to 1998, the SICI's potential in Electronic Data Interchange (EDI) was explored and extolled. Unfortunately, there has been no discussion of the SICI at NASIG conferences since 1998.

The ISSN (International Standard Serial Number) was often associated with discussions related to the SICI and with EDI (see below). However, it was also the primary or sole topic on several occasions. It cropped up in some fashion almost every other year. Its appearances in 1986, 1990, and 1998, were in relation to the SICI. In 1988, the ISSN was discussed in relation to developments in cataloging and the

International Serials Data System (ISDS), in which it operates (not surprisingly) as a file control number. The ISDS is also the body responsible for registering and assigning ISSN.

On several occasions (1996, 2000, 2004), then-current perceptions about the ISSN and its uses have been addressed. In 1996, several "myths" about the ISSN were dispelled, including notions that the ISSN has embedded meaning (it does not); serials can have either ISSN or ISBN, but not both (they can have both, which is quite common for monographic series); one ISSN is assigned to a title regardless of the number of formats it is published in (each format gets its own ISSN). These and eleven other misconceptions were discussed.

Presentations in 2000 and 2004 brought their audiences up to speed on the current uses of the ISSN. In 2000 these comprised two discussions, one in which past and current rules were reviewed, as were possible future roles with respect to the rise and proliferation of electronic serials and how ISSN rules could be harmonized with ISBD(S) and AACR2. The second presentation also talked about a harmonization between ISSN, ISBD(S), and AACR2 and went on to discuss a proposal for a revised AACR2, chapter 12, to better accommodate seriality. One of the 2004 discussions of ISSN again reviewed past and current uses, especially as an identifier in full-text databases and for interlibrary loan transactions. In another 2004 presentation, the ISSN's level of identification and its usefulness in relation to EDI were discussed in a report on the NISO/EDItEUR Joint Working Party.

NASIG discussions about EDI (Electronic Data Interchange) first happened in 1990. Briefly put, EDI is the communication of unambiguous information, such as may be found on orders and invoices-in a sense, a computer-to-computer business transaction. Its real strength is in the reduction of the amount of time to place and process orders and claims. Because it is machine-to-machine, and the order-placer and the order-receiver may not use the same computer system, standards are necessary for the computers to intelligibly "talk" to each other. The most widely used EDI standard was ANSI X12. In 1990, Faxon pointed out that while much serials information could be mapped into the data/transaction sets within the standard, a lot of serial-specific data, such as "start of subscription," was not accommodated. The 1990 introduction also noted that, while EDI encoding somewhat resembles MARC, it is not descriptive or document-based. Rather, EDI is transaction-based, requiring action as opposed to preservation.

Other presentations in 1991 and 1993 pointed out the advantages of using EDI-it can handle ordering, status reporting, invoicing, price changes, and claiming. The discussion in 1991 was a tutorial explaining the structure of ANSI X12. One of the two presentations in 1993 discussed the role of the SICI (NISO standard Z39.56-1991) and the SISAC barcode in EDI, as well as ANSI X12; the second presentation focused on implementation, especially its potential role in claiming.

The big year for EDI at NASIG was 1996, when it was the focus of its own pre-conference, "EDI and Related Standards: A Primer and Update from the Frontier."

Discussions ranged from the financial aspects to document delivery. Publisher and subscription agent views were presented on its potential for reducing claims and the technical issues involved with setting up the process. Z39.56-1996 (SICI) and its relationship to EDI were also expounded. Development and implementation of EDI interfaces with integrated library systems (ILS) were also described.

The 1999 discussion, "Elements of Style for Next Generation Serials Electronic Data Interchange," contains a worthwhile summary of the history of EDI for serials, including a chronicle of common mistakes in interface design and implementation and rules of thumb à la Strunk and White's Elements of Style.

CONSER's role in serials cataloging standards has evolved as the standards evolved, especially as electronic resources became prominent. In 1996, NASIG received an introduction to CONSER cataloging manual's Module 31, originally titled "Interim Guidelines for Online Versions of Printed Serials" (now called "Remote Access Electronic Serials (Online Serials)"). The issue at the time (and which still exists) was whether it was best to have separate records for the print and online versions of a given title or to have a single record for the title that covered all "physical" manifestations of it. The following year (1997) a session of four presentations (under the theme, "CONSER Goes Out on a Limb") provided an in-depth discussion about pros and cons of both approaches and how the single-record approach was implemented at several institutions. OPAC display of holdings and related public services issues were discussed as well. Libraries still have the option of choosing separate or single records.

The separate vs. single record issue later spun off into the aggregator-neutral record, which was first addressed at NASIG in 2001. A then-new CONSER task force, "Task Group on Journals in Aggregator Databases," had been formed to address the handling of titles that appear in more than one full-text database. Implementation of the group's recommendations was discussed in 2003.

Metadata ("data about data") is a latecomer to the standards field. The first presentation that discussed it was given in 1997. Although some may argue that MARC is metadata, metadata in and of itself became an issue in the context of the cataloging of, and providing access to, electronic resources. Issues with metadata were raised primarily in response to the question, "Is MARC/AACR2 cataloging appropriate for Internet resources?" In other words, should other metadata schemas (of which MARC is only one; others include Text Encoding Initiative (TEI) and Encoded Archival Description (EAD)) be used to describe and access these resources? What is the best method for organizing, discovering, and retrieving online resources? Dublin Core was initiated by OCLC in 1995 to address these concerns and, with metadata in general, was the subject of further presentations in 1998, 1999 (actually a pre-conference), 2000, and 2001.

Other issues that were dealt with over the years have included cataloging computer files (first cd-roms, then online resources); implementing changes in AACR2, especially the revisions to chapters 9 and 12; dealing with multiple versions; and how to handle online titles as provided by aggregators and the use of aggregator-neutral records.

Although most of these sessions were workshops that tended to be focused around one institution's handling of the given topic, AACR2 became the focus of a pre-conference in 2004 ("Integrating Resources Cataloging Workshop"), in a sense culminating discussions that had occurred at NASIG conferences since 1999 which kept members apprised of the status of revisions to chapters 9 and 12. The rewriting of those chapters of AACR2 provides better accommodation of seriality and acknowledgment of integrating resources, especially in light of electronic resources, for which no previous rules could provide adequate guidance.

V. Staff Issues

NASIG has not neglected the "people" side of handling information. Many workshops have been presented over the years dealing with the organization of our work: How do we organize our work? How do we establish priorities for selection and processing of materials? Where do we fit in the overall scheme of things?

Even before electronic journals took over our workflows, placement of serials management in the library has been a source of contention. In 1989 and 1993, for example, the question of centralizing serials workflow based on form (serials) was debated against decentralizing it based on function (acquisitions, receiving, cataloging, etc.) Automation greatly changed procedures and policies and prompted the reorganization of many technical services departments, as was discussed in 1992, 1993, 1994, and 1997.

From 1996 on electronic resources greatly complicated the workflow, enough so to inspire a session titled, "Order out of Chaos: Collection Development and Management of Internet Resources." Workshops and posters have been devoted to discussing prioritization of resources, both of materials and personnel, and to finding ways of getting input from the constituencies we serve outside the library, as well as those within it.

Even (or especially) in the face of ever-spiralling costs of serials and electronic resources, growing recognition of the time that is spent by fewer and fewer staff on more and more projects and resource to handle, has also led to discussions around designing offices and workspaces to enhance efficiency and comfort of the staff. Aging library facilities plus the growth of electronic resources has led to increased awareness and concern about the spaces within which we work and serve our patrons.

Time management and supporting documentation of various policies and procedures have also been discussed, especially in more recent years. One presentation in 2003 even explained how to implement a "forget to do" list.

Education and career issues have also been a concern, both from the perspective of our own roles and careers and from the fact that we need fresh faces and talent to continue our work. Support and networking, aside from being what NASIG does, have also been the subjects of presentations. Many changes have occurred within the various

facets of the information chain, and they directly affect job descriptions and expectations for those newly entering the arena and those who have been in it for a while.

The very first conference in 1986 had a session on serials education, focused naturally on the question of what NASIG could do. Since then there have been workshops and even a pre-conference (in 1993) on how to give a workshop, and training sessions on how to develop training programs. Other training workshops have been more focused on how to train staff toward specific goals, such as records interpretation (1987, 1993) and cataloging (1995, 1997). Other training related events included a pre-conference in 1998 on enneagrams--different personality traits and the different approaches people have toward learning and doing their jobs. Other sessions have dealt with topics such as verbal and nonverbal communication (1999) and dealing with difficult people (2001).

Our careers and roles as serials professionals, inside and outside the library, have also come under scrutiny. Advice regarding job hunting and networking has been shared frequently, including a presentation on how to write, as well as read, job descriptions and job ads (1991). In 1992, a pre-conference was held on electronic forms of job networking. Other job hunting and networking-related presentations were given in 1994, 1995, 2001, and 2003.

"Reports from the Frontiers of Change" (1994) and "Roles in Transition" (1995) dealt with issues such as alternative careers for those with a library science degree, as well as the changing roles within libraries as automation and the Internet started to really exert their influences on workflows and expectations. Workshops from 2001 through 2003 chronicled more recent changes and gave suggestions for cultivating new serialists in our now thoroughly electronic environment.

Change itself has even been the topic of several presentations. As noted above, our roles have been in transition. Change was first formally addressed by NASIG in two plenary presentations in 1994. The impact specifically on serials staff has been discussed on several occasions since then (1995, 1997, 2001, 2002). In 2003, changing roles in technical services were discussed particularly in view of the lack of pertinent coursework and hands-on training for students while they are still in library school. Suggestions for cultivating new serialists have included internships, mentoring programs, guest lectures, and, of course, networking.

The growth of the Internet and the World Wide Web (WWW), especially in the mid-to-late 1990s, sparked an interest beyond the management aspects of electronic resources. It also became important for other constituents of the information chain (i.e., libraries and vendors) to have their own electronic presence. Several pre-conferences were held in the 1990s to address this concern, including, "Internet Tools and Resources: An Electronic Buffet" (1994), an introduction to gopher, WWW, Mosaic and Listserv; "Maximizing the Web for Serialists: New Tools for the New Millennium" (1997), an introduction to HTML and resources for designing web pages; and "HTML from the Ground Up: Spinning Webs in the Clouds" (1998), more information on HTML and more

advanced issues with web design and editing. A variety of workshops in 1995, 1996, 2000, 2001, and 2002, kept interested folks apprised of best practices and designs for maintaining an online presence.

None of the foregoing discussion could have been possible without the willingness of all parties in the serials information chain to participate in mutual efforts aimed at effectual dissemination of information. It has not always been smooth, but the discussions and, yes, arguments that have taken place have served to bring concerns great and small out into the open for the benefit of all. This could only have happened because of recognition by NASIG's founders, and the subsequent growing number of members, of the importance of the relationships between the constituents represented.

The library-subscription agent relationship has received explicit attention over the years. It was first discussed in a session of four presentations in 1989 (titled "Department Stores to Boutiques: How Many Vendors and What Kinds of Services Does Your Library Need?"), in which selection of vendors was discussed, as well as the advantages and disadvantages of using one or many vendors. The overwhelming volume of electronic resources and their management led to an updated version of those issues in 2003 in a session called "Helping Manage the E-Journal Forest: Do You Need an Agent Any More?"

In 1992, a session titled "Marketing to Libraries: What Works" revolved around the need for ongoing communication between libraries, vendors, and publishers, and the necessity of vendors and publishers to talk and listen to their market and tailor services to explicit needs. Those needs tend to be based on changes in collection development policies and acquisition practices.

In 1993, a discussion of the changing landscape for subscription agents took place, called "Between a Rock and a Hard Place: The Future of the Subscription Agent." A number of other individual workshops and presentations over the years have dealt with working details and case studies of partnerships between libraries and subscription agents. In 2004, there was an emphasis on working collaboratively with vendors, including a discussion of vendors' expectations of how libraries can be good customers.

VI. Moving Forward

NASIG is coming up on its twentieth anniversary, and the group has much to celebrate. New technologies and old problems continually present challenges and are met head on by members who are willing to share their perspectives with others who are ready to engage in the searching, questioning, and listening that foster creative solutions. We continue to debate pricing and its effects on scholarly communication, just as we see the influence of electronic publishing on the dissemination of research, and how the three issues are now enmeshed and inseparable from one another. We see how technology has changed workflows and forced the development and evolution of standards that were virtually inconceivable twenty years ago.

Even before their electronic versions came into being, serials were a difficult, albeit necessary, format to deal with. Their place in technical services, as well as public services, often merited additional training and the wish by those in the profession that they had gotten more experience with them in library school. Digital resources have made this concern even more palpable with the growing necessity for some background in metadata and other electronic standards and practices. There has been a blurring of the lines between libraries, vendors, publishers, and educators, as it becomes imperative that all who are involved in the serials information chain and the dissemination of information must be able to speak the same language and understand the myriad facets of the process and products we call serials and electronic resources. NASIG fulfills that mission to facilitate communication and collaboration. It has done so for twenty years. May it continue to do so for the next twenty and more.