Role for an Acoustical Society Journal

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ABSTRACT
The objectives for most acoustical societies include the concepts of promoting and advancing acoustics as well as supporting acousticians. The common means for achieving these objectives are the organization of meetings and the production and distribution of a publication. The basic publication is a newsletter that provides the means to keep the members informed on activities. As the society grows it is usual that the publication develops to include articles to better promote acoustics in the region. It is then not long before the society is producing a journal with a combination of news, notes and articles. This paper will discuss the role, benefits and challenges for a medium sized society in the production of a journal, using the journal Acoustics Australia as the example.

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1. INTRODUCTION
When those working in a particular subject area in a country or a region decide to form a professional society one of the first tasks is to establish the aims and objectives for the group. For example the International Commission for Acoustics, ICA, has the broad aims “to promote international development and collaboration in all fields of acoustics including research, development, education, and standardization” [1] while the Australian Acoustical Society has the aims “to promote and advance the science and practice of acoustics in all its branches to the wider community and provide support to acousticians” [2]. While they may not always be expressed so succinctly the aims of professional organisations usually include education and support for the members coupled with outreach for the wider community.

To meet these aims, there comes a time in the development of the organization that the benefits to the membership of a publication are recognized. This may well start as a regular newsletter which provides news and notes relevant to the members of the organization at that time. As the membership of the organization grows and wishes to highlight the achievements of the members both nationally and internationally, this ‘newsletter’ can develop with the inclusion of technical information and articles. It may then be considered as a ‘journal’. One definition of the word journal is “many publications issued at stated intervals, such as magazines, or scholarly journals, academic journals, or the record of the transactions of a society, are often called journals” [3].

An important change that occurs at this point is that the content of this ‘journal’ becomes available to those outside the organization and while it may contain time relevant news/notes the technical articles are considered as publications and remain as such into the future and may be referred to and used by others nationally and internationally. With this change in content there is the obligation to ensure high standards for the content so that the status of the professionalism of the organization in that region is maintained. So a process for reviewing and checking the content of the technical articles, usually by peer review, is established and the society newsletter grows to become something with higher standing than a newsletter but not necessarily a primary research academic journal.

For a society with a large diverse membership this journey provides few challenges as there is the availability of the expertise and funding to provide the necessary support. For a medium sized society, for example less than 1,000 members, the journey is not as easy. In this paper, the benefits and challenges in the production of a journal by a medium sized society will be discussed, using Acoustics Australia, the journal of the Australian Acoustical Society as the example.
2. BENEFITS OF PRODUCTION OF A SOCIETY JOURNAL

First to clarify that this discussion relates to a medium sized society, that is with a membership ranging from a few hundred to a thousand and so excludes large societies like the Acoustical Society of America. For the medium sized organisations the costs of producing a professional society journal come from the membership fees and so there is an obligation that it provides some benefit to the membership. As the membership of such societies span across most areas of acoustics the content should similarly be broad. However the society membership base is very likely to be uneven across the subject areas and for example may well have a high proportion of practitioners dealing with noise and vibration control. Thus the journal should not strive to be a primary research journal. The appropriate publication opportunity for primary research papers should be the scholarly journals which have been established for particular subject areas, usually produced by commercial publishers and accessed by other researchers. In the report of the National Academy of Sciences Committee on Facilitating Interdisciplinary Research it is noted that [4]:

"Disciplinary societies have a great deal of influence through their journals in terms of their willingness to publish, their review procedures for papers submitted to a journal, and their ability to create new journals for subdisciplines”

An important aspect of the society journal is that advice of its existence is provided to all members of the society. While electronic web based journals may be replacing hard copies, there is still a direct message provided to each member. Thus the published papers in the journal are likely to be read (or at least the titles scanned) by all the members. This is important as many of the members may not have access via subscriptions to other published journals. The society journal then has an important role in regard to ongoing education to the broad membership and extending to allied professional groups in the region.

When the editor is considering acceptance or rejection of submissions, the relevance to at least a portion of the membership and/or to the region should be an important consideration. The publication of papers that have been prepared by members of the society should be encouraged as it provides an opportunity to document and demonstrate the achievements of the members. However publication should not be limited to only papers from the membership. As a contribution to the ongoing education role papers from workers outside the membership and the region that are assessed as potentially of relevance to members should be published.

3. CHALLENGES IN PRODUCTION OF A SOCIETY JOURNAL

One major challenge for a Society embarking on a journal production is recruiting suitable personnel for the editorial team. Selecting a suitable person to head the editorial panel can be difficult as the role is time consuming, ongoing and usually involves no financial remuneration. There is a benefit in selecting someone who is still actively working in acoustics, participating in national and international events so that they have currency and good networks across the field. The problem these days is that as employers, including universities, require higher performance and outcomes a task such as editor for a society journal is unlikely to gain credits in work appraisals that are proportional to the amount of time that needs to be expended on the task.

Similar challenges apply to the selection of the editorial panel to assist the chief editor. For a medium sized organization, an editorial panel of 2 or 3 persons is usually all that can be realistically achieved. This is a workable number especially if one chooses to take on more responsibility on the financial side by keeping track of the income and expenditure as well as the advertising and subscription revenue. Another main task is managing the general sections on society news. This requires constant and repeated checking with the various sub groups that comprise the membership of the society as well as extending into the surrounding region for relevant items.

Managing the submissions can be broken down into a number of steps including: first check if relevant, send to reviewers, receive and collate review responses, send to author, receive and check resubmission. In reality keeping track and sending out reminders is more time intensive than first appears. Traditionally this has been managed by the editorial team themselves or with the aid of an editorial assistant. Nowadays there are reliable paper management software systems that can assist with managing the many steps in this process. However implementing such systems takes time for selection of the more appropriate from those available. In addition there is the initial set up to best meet the needs of the Society Journal. An editor who has their own system is tempted to keep going rather than take the time out to implement a new system. Thus it is usually when a new Chief Editor
is appointed that such change is considered.

Once a manuscript has been received, even if it has been rejected for publication, there is an obligation to have a suitable secure and reliable archiving process. Secure because the many of the communications are confidential. Reliable because there may be a requirement in the future to review the various key documents that led to the publication. This is becoming easier with the greater access to various forms of storage, some of which have no costs although storage capacity may be limited. However it is not only a matter of storing the material but doing this in a way that it can be readily accessed in the future. So a file storage protocol needs to be developed and maintained. This can be a challenge when there are changes in the voluntary editorial team.

Involving the members of the society with the production of the journal is important so that new members of the team have an understanding of the entire process. This is best achieved by appointments to the editorial team so that those likely to take on the task of chief editor spend some time on the editorial panel first.

Ensuring that the authors gain appropriate credit and citations for their papers is important. It is only by increasing the ‘Impact rating’ or similar measure of the status of the journal, that there will be a flow of good quality papers. This status measure is extremely important for academic research journals and it can be argued should be less important for society journals which have different aims. However it should also be recognized that writing a paper, especially if it is a more general review type paper, takes considerable time. Once written, the author will usually try to publish in a journal that will obtain the major exposure and hence potential citation rate. These factors are all interlinked making it challenging for a society journal to achieve a high status factor while still keeping in mind the aims and the obligations to the membership whose fees are contributing to the journal.

While the members receive their own copy of the journal and can choose to note the papers of interest, those outside the society will only ‘find’ the paper if it comes up in a search using the various database search options. Having the appropriate indexing of papers so that they have the best opportunity to be ‘discovered’ by those outside the society is important for the author and also for the society. Keeping track of the number of society journal articles that are read by those outside the society is a measure to the society of the value of the support for the journal and a measure of the ‘outreach’ achieved by the society.

Times between submission and acceptance and then between acceptance and publication is important for authors and editors alike. The times between submission and acceptance rely on the response of reviewers which can be expedited by maintaining deadlines for all involved. Once accepted there is the time to publication. It is usual that the paper has to wait till the next scheduled issue of the journal and there may be only 3 or 4 per annum. If one of the issues is a special topic issue that puts a further delay in the time to publication for papers not in that topic area. It is not common for a society journal to be able to create a pre-publication version that the author can cite. Timing to publication is becoming increasingly important to authors even if the paper is not a primary research paper. Thus society journals need to seriously consider implementing some form of pre-publication version.

The costs of hard copy production and distribution have been increasing dramatically in recent years. Many society journals have faced the decision between substantially increase the fees for all members and the charges for advertising or dispense with distributing hard copy versions of the journal to all members. To take into consideration the expressed concerns of some members about the loss of the hard copy journal there are two main options. The incentive approach is to offer a discount in membership fees for those electing to only received the electronic version (either direct to their email or via an access weblink). The opposite approach is to require additional payment on the annual fees based on cost recovery for those seeking to receive the hard copy. In our recent experience with Acoustics Australia many of the members were surprised at the cost recovery charge which was only based on the hard copy printing and postage. They would have been absolutely amazed if the cost had included an allowance for all the voluntary time of the editors!

4. CASE STUDY OF A GROWING JOURNAL

Acoustics Australia was initiated by the fledgling Australian Acoustical Society with volume 1 in 1972 when the membership of the Society was only a few hundred, primarily focused in the major cities of Melbourne and Sydney. The first issue comprised six articles all authored by Australians and dealing with topics of specific interest to acoustic practitioners. The cover is shown in Figure 1 and indicates the limited printing options at that time as well as the serious intent of the journal. Over the
following decades the number of articles remained typically between 6 and 10 per issue and one special underwater acoustics issue with 12 papers. Around 1980, the year the International Congress on Acoustics was held in Sydney, papers by workers from outside Australia began to appear. In some cases these papers were initiated from collaborative work either with visitors to Australia or from Australians spending time overseas. Over recent decades the responsibility for the journal has been with the Chief Editor plus two others in the editorial panel. It has been up to the Chief Editor to choose how to balance the workload. Figure 1 comprises samples of the covers over the decades with the designs becoming more appealing and bearing some relationship to the one or more articles in the issue. In 2014 the journal has an acceptance rate of 70% with the average time between submission and initial acceptance of 36 days and the average time between acceptance and publication of 41 days. The impact factor is around 0.3. All of the past issues are available on the website and the tally of the number of hits on each issue shows a range from around 200 for volume 1 through to 24,000 for a 2008 issue. The more common hit rate for recent years is around 13,000.

![Figure 1 - Examples of the change in cover design over the decades](image)

The years of 2013 and 2014 have been the time for change for the operation of the journal. It became clear that it was no longer economically viable for the Society to continue to produce the journal in hard copy and posted to all members. In part this was due to the increased printing costs but the major reason was the substantial increase in postage costs. The more articles and items in the journal the more pages which push up the per item postage rates.

Before making any changes a survey of the membership was implemented in mid 2013. The response rate was just over 30% despite repeated reminders [4]. This was a good representation of those that seek to publish articles and those that only read the journals. It was rewarding to see that 91% of the respondents “Flip through it to see if anything is of interest” while 48% “Read through most of it”. For the previous two years the members had been sent an email with a pdf of the journal in addition to the hard copy. Over 40% of the respondents said they flip through the pdf quickly and waited till the hard copy came to read in detail while 12% said they read only the pdf.

In response to the questions on the preferences almost half indicated that, if there were no changes in the membership fee they would prefer to receive both the hard copy and the pdf while 23% said they would only require the pdf. The number still preferring a hard copy reduced to 35% if there was a charge and of this 35% only a quarter would still be prepared to pay a realistic cost recovery rate of AU$90 per year. The Council of the Society decided that the cost recovery charge would be applied for those selecting a hard copy from mid 2014. To date, although not all have paid their annual subscriptions none of the members have opted to pay this extra charge.

The next change in 2014 involved the paper management and publication process itself. The time was right with the new Chief Editor commencing from 2014. The initial focus was on the paper management and a range of options from freeware through to commercial systems were assessed for suitability. It soon became clear that the entire system through to publication really should be considered. This would then not only overcome the problems with the current labor intensive paper processing but also overcome the challenge regarding full indexing and pre-publication. After negotiating with a number of publishers the outcome is a recently signed contract with Springer Publishing to commence in 2015. This arrangement will overcome many of the challenges discussed above while still meeting the needs of the Society with the Society news etc. and advertising being included as the “front matter” in the journal and the issues of the journal being available to the membership. Springer will provide the marketing and we expect that this arrangement will be of benefit to both organisations and substantially increase the outreach of our journal.
5. CONCLUSION

In this paper the benefits to a medium sized society in the production of a journal have been discussed. While the journal may be a worthy undertaking there are substantial challenges to be overcome considering the limited resources of such organisations. This is demonstrated in the case study of the growth of Acoustics Australia, the journal of the Australian Acoustical Society, over 4 decades.

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REFERENCES