The 2nd SPARC Japan Seminar 2010

"Journal publishing – current situation of overseas academic societies"

Learned Society Publishing in the 21st Century

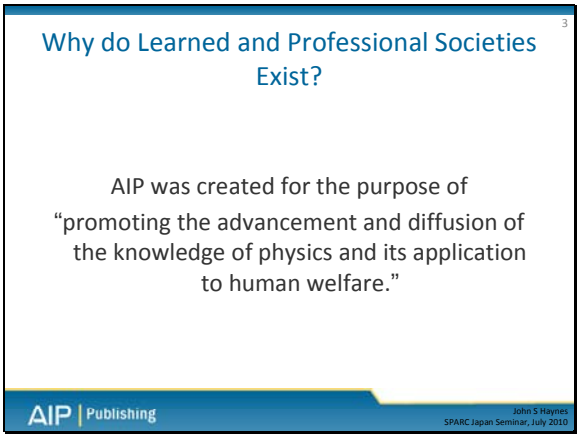
Learned society publishing goes back more than 350 years. Collectively, learned society publishers account for a significant proportion of the world's journals, but individually most are small with 90% publishing only one journal. The resulting landscape – a "long tail" of small players – brings richness and diversity to the market place but also introduces complexity and costs into the supply chain. In an environment of "big deals" and open access, this seminar will examine the challenges, threats and opportunities facing learned societies and their changing roles in scholarly publishing. The seminar will also provide an overview of open access and author rights.

John S. Haynes
Vice President for Publishing, American Institute of Physics

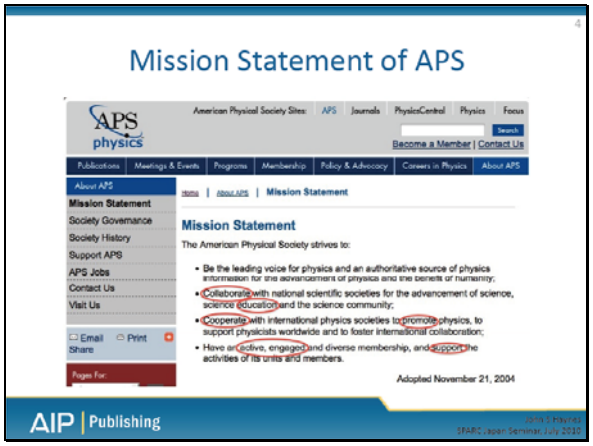
An Introduction to Learned Societies

Dr. John S. Haynes (Vice President for Publishing, American Institute of Physics)**:** Today I will cover three topics, first among them society publishing and whether it is the same or different from commercial publishing. I will give you some facts and figures about the industry and outline some of the current pressures and priorities for society publishers.

Although the state of journal publishing remained the same for many years, in the last fifteen, it has started to change very rapidly. It has become much more competitive along with rapid innovation in products and services driven by the Internet and technology. The rise of social networks and the general easing of global communications has created a potential for wide social change. The ways in which knowledge is created, peer reviewed, documented, and shared are all going to change tremendously over the next decade. The reward systems whereby scholars and scientists benefit from being published and disseminate their knowledge are likely to change over the coming decades as well. Social, technological and economic pressures are forcing publishers to adapt and continue to add value for scholarly communications.



Why do learned and professional societies exist? The reason why my organization, American Institute of Physics (AIP), was created was to promote the advancement and diffusion of knowledge of physics and its application to human welfare. AIP is an umbrella organization, with societies such as the American Physical Society (APS) among its members.



The mission statement of APS is typical of many societies. Most societies aim to collaborate, promote, support, and cooperate in their field. The concepts of learned society are always very international and very global.

The situation may be different in Japan compared with the United Kingdom and the United States, where learned societies are often labeled as charities or not-for-profit organizations. In the UK, the legal term is "registered charity," and in the US, it is a "501(c)(3) organization." As such, learned societies do not receive any financial support from the government. They must survive and thrive on their own standing. The only thing learned societies get from the government is a tax status which makes them exempt from paying taxes. Depending upon the status of learned societies in Japan, tax status may be something to talk to the government about.

Differences between Learned Society Publishing and Commercial Publishing

Here is a question for everyone: is society publishing the same or different from commercial publishing?

Audience member (a): I think the standards for peer-review are different. Depending on the field this may be more or less blatant, but commercial publishers prefer to put out trendier papers or publish on topics which the academic community finds particularly important. It isn't very easy to explain in simple terms, but no matter the journal, I think if you read society publications you will feel that they are definitely different on this point.

Dr. Haynes: I believe what you are talking about is mission. A society is very much driven by its mission to be close to the scientists, close to the community. Many small societies are served by volunteers, whereas large commercial publishers usually have an extensive publishing staff and expertise. Learned societies generally have a single subject focus whereas a commercial publisher generally publishes in many subjects and disciplines. Many learned societies are very cautious and risk averse – they do not have a lot of money or capital to spend and invest. In contrast, commercial publishers tend to be far more entrepreneurial. One other very important difference is that most societies are very national, whereas commercial publishing has become global.

Society journals are operating in an increasingly competitive market, and that market is characterized by a concentration of very large commercial publishers. The way these commercial publishers are using aggressive pricing and content bundles is making it increasingly difficult for small publishers with one or two journals to compete. These factors mean that small publishers need to start looking around for partners to cooperate and collaborate with.

Issues Faced by Learned Societies

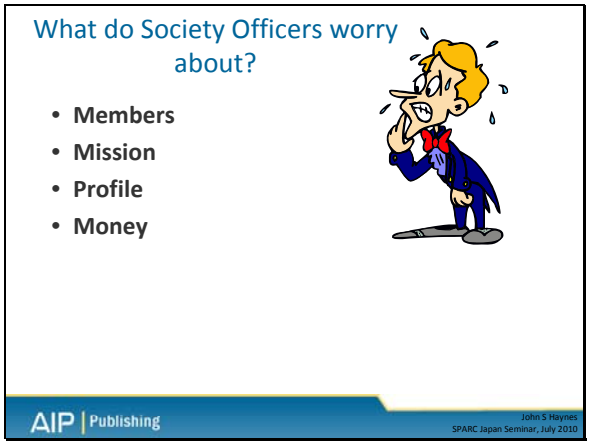
I would like to pose a second question here: if you were an officer of your society, what would keep you awake at night?

Audience member (b): The number one thing I am thinking about right now is the process to become a public corporation. This is not an international issue, but something unique to Japan. Aside from that is financial resources, journal publishing, and of course the problem of Grants in Aid for Scientific Research (*Kaken-hi*). Some time ago the amount of *Kaken-hi* given was reduced significantly, and we were forced to take the drastic measure of charging for our English-language publication and only sending it to those society members who requested it, whereas before we had been sending it to all members for free. When we first implemented this it was a major worry.

Dr. Haynes: Are your membership numbers going down or up?

Audience member (b): Our membership numbers are very stable. Over the long-term we have been seeing a slight downward trend, but this is the same for societies everywhere I think.

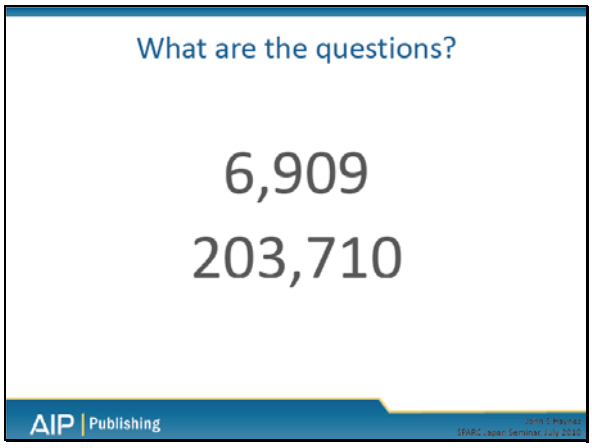
Audience member (c): What bothers our officers the most is fund management, but I am not involved in the accounting activity, so I cannot explain the details. Instead, I would like to talk about publication since my main responsibility is publishing a journal. Our editors' biggest concern is how to increase the visibility of the journal and how to attract authors who write a high-standard paper.



Dr. Haynes: Money is certainly high on the list. As for your visibility in the international market, open access is one way that you can raise your profile; although this might threaten your business model.

One of the main reasons for open access was a response to the so-called "serials crisis" and increasing journal prices from some commercial publishers. Most society journals are good value for the money. Of course, you may not be in the position to go to open access if getting the journal is a member benefit. People may not join your society if your journal is free.

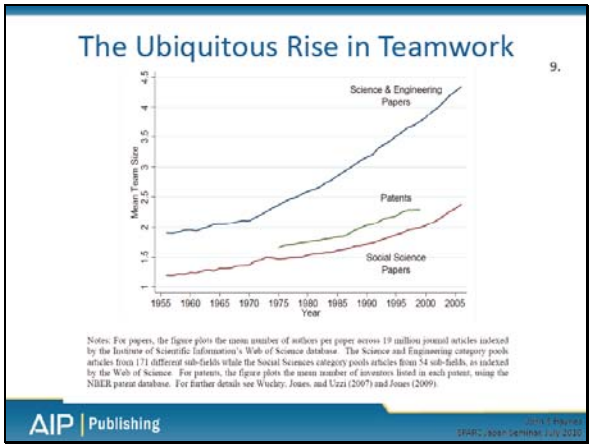
Changes in Science, and the Role of Learned Societies



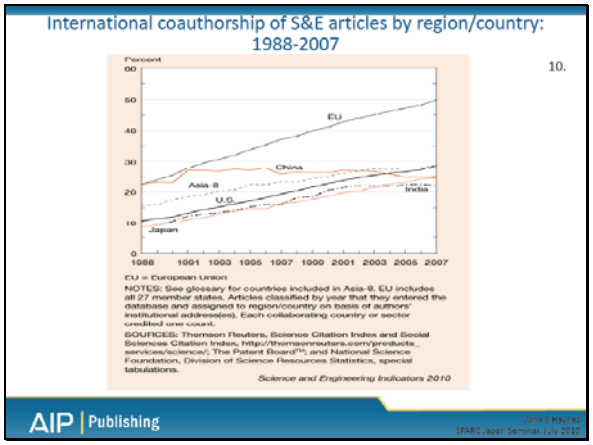
Here is the next question: these are the answers to two loosely related questions. What are the questions?

The first one is the number of days since the first website was built. That website was at the European Organization for Nuclear Research (CERN) and was built by a physicist. The second number is the number of days since the publication of Gutenberg's first Bible. The fact is that the Internet is very young technology and the printed word is very old technology. We are familiar with the print format, corresponding business models, and so forth, but we are still very early into the transition from print to online media.

This is an end cap of a calorimeter in the Large Hadron Collider. When I was doing high school physics, there were no calorimeters of this size! You can understand the scale by noticing that there is a six-foot man standing in the device. What this illustrates is that the nature of science is also changing very quickly along with changes in communication in the 21st century. The nature of the way we do science, record science and report science is changing. Learned society publishers and publishers in general have a role to play in disseminating the vast volumes of data that come out of the new experiments being done today.



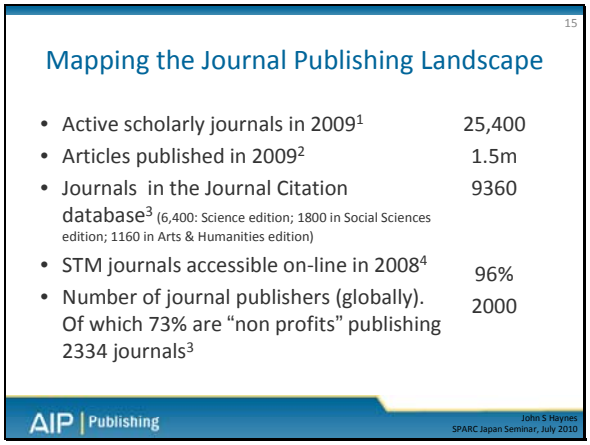
The way science is done in teams is changing as well. This graph is from the National Bureau of Economic Research in the US. It shows the average team size for experiments published in science and engineering, and social science. Over the past 50 years, science has become a much more team-based enterprise, rather than centering on a single researcher's efforts.



Internationally, the degree of collaboration between those from different nations when writing scientific and engineering articles is increasing. Most scientists are becoming more international. The only difference is China. This may be a timing issue.

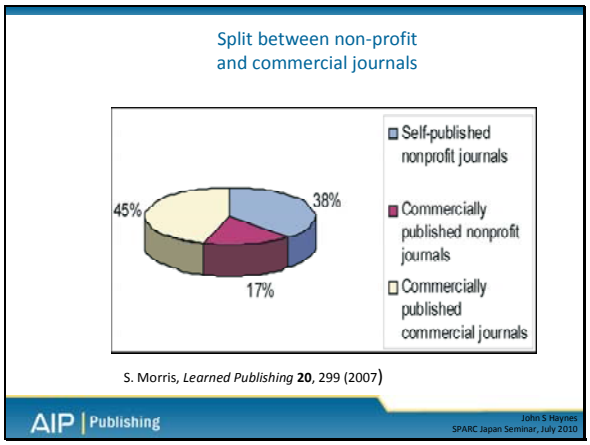
Science has become bigger, science has become more team-based and science has become more collaborative. What impact does this have for you, your society, and your country? Do societies need to become more international to reflect these trends? This is something to think about.

The Journal Publishing Landscape

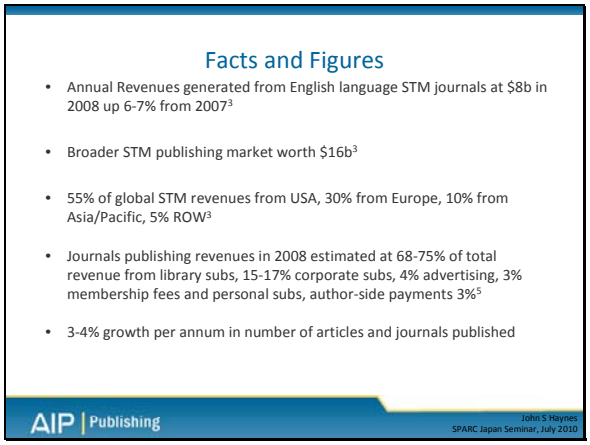


Allow me to highlight the size and shape of the scholarly publishing industry. There are a large number of active journals today. It is a difficult figure to estimate, but it is about 25,500. These journals are responsible for about 1.5 million articles each year. The trend of moving from print to online media,

certainly for scientific, technical and medical (STM) journals is now almost complete, with nearly 100% of journals now available online. Scientists around the world, including those in Japan, have many more choices regarding where they can publish. It is the job of publishers and learned societies to make their journals as attractive as possible to as many authors from good institutions as possible.



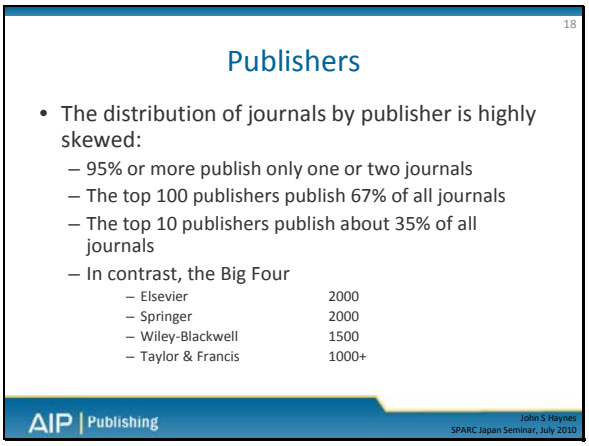
Out of the 25,000 journals in the world, what is the split between commercial publishers and learned societies? This slide shows the breakdown between self-published non-profit journals, commercially published non-profit journals, and commercially published commercial journals, which are owned by commercial publishers and which make up 45% of the market.



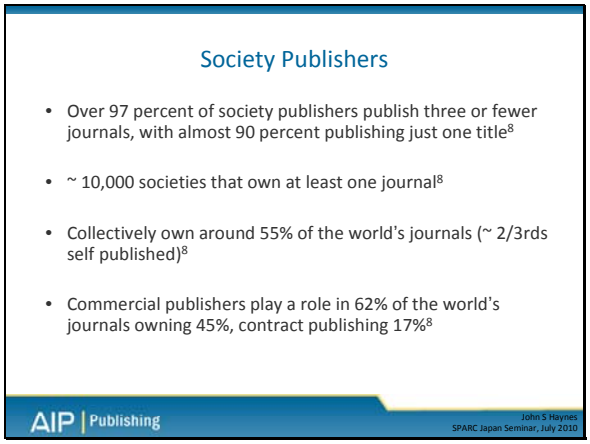
In terms of English language STM journals, the size of the market is about US$8 billion and it is increasing at 6-7% a year. In terms of revenue around the world, the biggest market in the United States. The next biggest is Europe and then Asia-Pacific. China is probably the fastest growing market at the moment.

Science is international – typically successful journals need to have international circulations and international readership. The authors who are publishing in your journal will be looking to reach an international audience. If you do not do so currently, you might start looking at how you can partner with international organizations to extend your market reach.

Because there are more scientists working in the world, more papers are being produced. The number of articles published is growing at about 3-4% a year. This means that every 20 years the size of the market doubles. One of the challenges for small learned society publishers is how to deal with this growth.



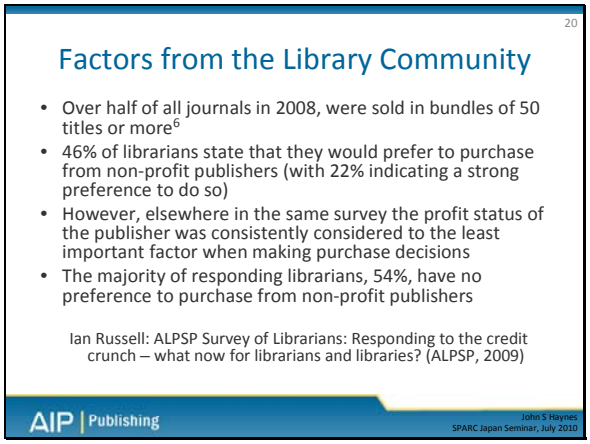
The competition for learned society publishers is essentially four very large mega-publishers. Most learned societies, 95% or more, publish only one or two journals, and this being the case, how can they compete with companies publishing 2,000 or 1,000 journals? This again points to a need for collaboration, cooperation and partnership, rather than being independent and trying to do everything oneself.



There are a large number of societies that publish a small number of journals. The shape of the market, in which you have a small number of large commercial publishers, and a large number of small society publishers has meant that one of the trends of the industry is that learned societies are turning to commercial publishers to be their providers and strategic partners. This trend is likely to continue unless there start to be more collaborations and cooperatives formed between like-minded societies.

Responding to Market Changes

There is a growing number of societies launching new journals. In order to be competitive, it is important to provide the most appropriate publishing service and new journals for your society and its members. However, launching new journals requires an investment and the willingness to take a risk. Generally, only commercial publishers and larger learned societies can afford to take this risk. There is thus the possibility that many smaller learned societies may find themselves stuck in a field which has become less relevant, or in which a new, more popular journal is emerging. Learned societies which cannot provide journal's for emerging and pertinent fields may become less relevant.



It is always important to keep the customer in mind when working in a business, and in journal publishing, one of the main customers is librarians. The Association of Learned and Professional Society Publishers (ALPSP) did a survey in 2009 on how publishers are responding to the credit crunch. It was found that in 2008, over half of all journals were sold in bundles of 50 titles or more. If you only publish one or two journals, how do you get the attention of librarians when they are already spending so much on these bundle deals? Nearly half of librarians surveyed said they would prefer to purchase from non-profit publishers, with 22% of these librarians indicating a strong preference to do so. However, librarians also responded in this survey that the profit status of the publisher was less important when making purchase decisions. It may be good to be non-profit and mission-driven, but in our commercial world, librarians are still looking to get the best value for their library budget.

Ms. Yuko Nagai (Secretary-General, the Zoological Society of Japan)**:** I think that what was just said is particularly important, and I would also like to ask any librarians in the audience about whether they don't feel that perhaps in Japan there is the issue of there being low demand for Japanese journals among Japanese researchers.

I don't know if ALPSP surveyed Japanese librarians. I would like to know if Japanese librarians feel that they would prefer to purchase from non-profit publishers, and if any of the librarians here feel that

Japanese researchers are not very interested in Japanese journals.

Audience member (d): I am currently in charge of domestic journals for Tokyo University. We have separate sections for domestic and foreign journals.

At Tokyo University, we are trying to purchase many journals in every possible field, and we don't honestly care about who the publishers are. The only thing we do have an interest in is if a change in the publisher of a journal affects the price. For example, some time ago a Japanese society we bought from began to entrust their English-language publications to a foreign publisher, and this raised the price ten fold.

When this sort of thing happens, continuing to buy the journal like we always have is not an option. We can either opt to purchase an electronic version or buy less copies of the journal. In any case, I would say that outside of price differences, we do not care much about who the publisher is.

Ms. Nagai: One of SPARC Japan's missions is to encourage domestic libraries to purchase more domestic journals. It is important to have journals purchased by foreign libraries, but before that it is important to make sure domestic libraries are purchasing them.

Dr. Haynes: The answer from the University of Tokyo Library System librarian was very familiar. Librarians are deciding about what to subscribe to on the basis of price and value, and downloads are becoming much more important.

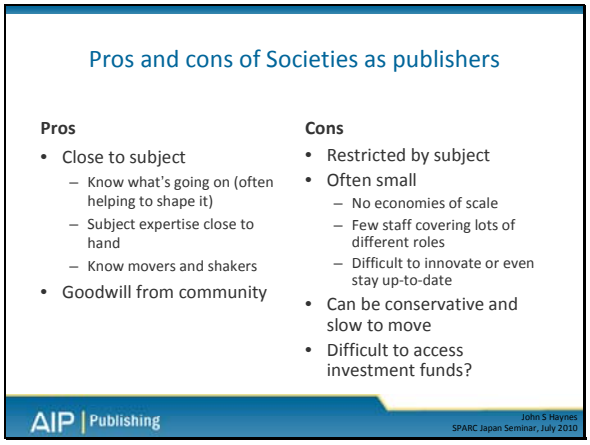
I would like to quote you a line from a study that was published earlier this year which summarizes a lot of today's presentation: "In an increasingly electronic environment, scale has become all-important, and scholarly societies have increasingly turned to outside partners for their journal publishing."

If you have a journal, you are responsible for the health of your journal. What observations do you have? What conclusions can you make and what do you recommend to your society officer about how you to progress and improve the situation of your journal? What are the trends? What are the trends telling you? Are you getting more papers? Is your impact factor going up? What about your usage? How can you catch up or keep up with technology? How can you reach out to international markets and international librarians?

Reconsidering Publishing Methods

As you work to improve your journal, you may want to reconsider the way you publish it. There are certain factors you might want to think about when looking at self publishing or contract publishing. To pick out a few of them: what level of financial risk and return are you prepared to make? How much investment do you need to put into your journal? Where will that investment come from? There is the whole aspect of trust and control – if you are doing something yourself, you have absolute control, but if you are doing it with a partner, you have to trust them to do the things they say they are going to do. What influence do you have if you are one journal, and your publisher has 1,000 journals? How might this affect your brand and your image?

Depending on your access to knowledgeable staff, innovation, global sales and marketing you may make a different choice about how to publish your journal. This is an issue of change, and to quote the same study again, "Change can be very difficult when you are working with a conservative set of attitudes." Change requires leadership, inspiration, and hard work.



There are positive and negative aspects of society publishing. The positive aspects are that societies are close to the subject and know all the key people. The disadvantages are that societies are restricted by their subjects. They are often small, have no economies of scale, possess limited resources and few staff and are thus unable to cover a lot of different areas. The world changes fast. It is difficult to keep up and stay up-to-date if your organization is conservative, and if you don't keep up it is difficult to get money.

The Future is Competitive Collaboration

In summary, "the future is competitive collaboration." It is finding ways to collaborate with those who may now be your competitors. Collaboration should not just be for the sake of collaboration, but for a purpose. Collaboration among small societies is going to be essential to ensuring their survival so that such societies can grow their revenue and ability to compete and better serve their members. In the United Kingdom and the United States, some of the larger societies like those in physics and chemistry are large enough to survive on their own at the moment, and they can generally compete effectively with large commercial publishers, although it is getting tougher all the time.

This has been an overview of some of the pressures and opportunities faced by society publishers. The market in the United Kingdom and United States right now is very competitive and smaller societies are starting to look for partners.

Questions and Answers

Ms. Nagai: Thank you for your presentation. I really think it covered a number of topics and highlighted the importance of cooperating and collaborating. Collaboration may be possible with other small society publishers in one's own field or with larger corporate publishing houses. Interesting examples of collaboration can also be seen in Project Euclid and Bio One, which are supported by the Association of Research Libraries.

I think that collaboration will most likely be really difficult in the fields of Physics and Chemistry in Japan. There are a few people from chemical societies in this room, and so I would like to ask you what you wish to do with chemistry journals? After listening to Dr. Haynes presentation, how do you feel? I would appreciate it if some of you would tell us about what sort of things you would like to propose to your own society officers. At the same time, I would also like to ask for any questions about Dr. Haynes' presentation.

Audience member (e): Currently my society is doing everything independently. The society as well as the editorial board feels that this is best.

I think that the first condition for self-publishing is becoming independent, and so we are making every effort to increase our domestic sales.
For overseas sales we are entrusting operations to an agent, as this is something which we cannot do very well on our own. We are just starting to increase the number of society members we have overseas. This

has different purpose for the society and the editorial board, but we are nevertheless attempting to increase our members overseas.

For the society, as our members increase, we earn more income. For the editorial board, increasing our members means access to a larger pool of authors who can write us excellent papers. Furthermore, there is the secondary objective that in increasing our members we aim to increase the amount of readers for our publication.

We don't know yet what kind of society will be created as a result of our efforts. For three years we have worked to target certain members by offering to authors. These people tend to remain members for quite a long time after publishing their manuscript. I believe that if we keep up our efforts our membership will grow.

Despite all that we are doing, we have yet to see expected economic impact. We have been following this path for three or four years, and so when I think about what's next, I wonder if it isn't time to join hands with a commercial publishing company. It is either that or search for a different kind of collaboration.

Dr. Haynes: That is a very interesting case study from chemical engineers. Do you have any international editorial board members now?

Audience member (e): Yes. We have one member from Taiwan and one from South Korea. They are experienced editors in their fields.

Dr. Haynes: It is good to have more editorial representation. On progress, you say you have been doing it for three years, are you going to look another three years ahead? You are right, journals take a long time to turn around. It is important to have indicators along the way showing that you are making course changes.

Ms. Nagai: Cooperating with non-profits is also an option. I would like to hear about everyone's societies and what you hope to do in the future.

Mr. Kazuhiro Hayashi: (The Chemical Society of Japan): I would like to talk about what is happening in Chemistry. In Japan, from the beginning the many academic societies have been competing with each other, but since even small societies are publishing their own English journals, around 2007 it was decided that at the very least we should work together on publicity. About that time we started to organize joint booths at international symposiums.

At first we only publicized six, but as of this year we are working on 10 journals, and we are advertising these in Asia, the United States and Europe.

As for the way forward, I think that the situation in Japan makes it difficult to proceed with shared electronic journal platforms. The reason for this is that if we move toward doing this, people will argue that it is going to lead toward the merging of different societies, and this will not be accepted. I think that this is a problem of Japanese culture.

I would like to ask a question in this context. In the United Kingdom and the United States, did the move toward electronic journals lead to the merging together of societies? Did the scale merit of digitization eventually lead to mergers?

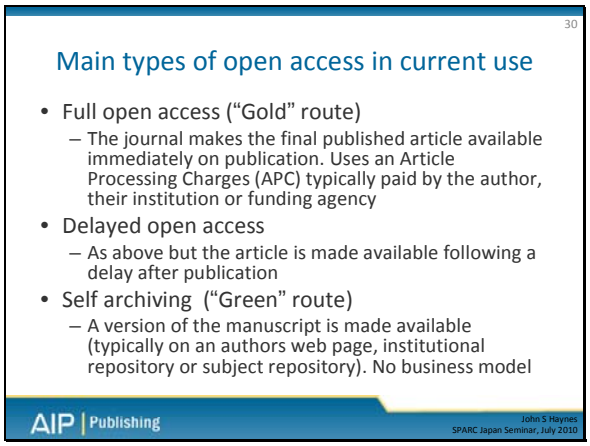
Dr. Haynes: That is a really good comment and a great question. In the United States and United Kingdom, there are similar society politics and there are only a very small number of occasions when societies have merged together. Several have tried and for various reasons have failed or have had their proposals to merge rejected by their members. In the United States, there is the Optical Society of America and SPIE, which is more of an applied optics society. They share a lot of interests, a lot of members and you think there would be some mutual benefit from joining together, but in fact, the members rejected it. In the United Kingdom there is a similar situation with two

mathematics societies who wanted to merge, but again, it was rejected by some of the key stakeholders. In Europe, there used to be quite a large number of national physics journals – French journals, Italian journals, Spanish journals, and so forth. Each of them was owned by a learned society in their country, and they were finding it increasingly difficult to be publishers, so they managed to put aside their political divides and they created the *European Physical Journal*, which is a journal published by a commercial publisher, but which learned societies have a lot of influence over.

Open Access Publishing

Open access is one of the very hot topics in publishing right now. It is the idea of making content available free of charge to readers on the web. The main arguments for open access are that it can create greater impact for scientific research. Another argument is that the Internet should bring down the costs of scientific publishing. Also, there is a view that the public purse pays for research so the public should get free access to that research. In contrast, others make the case that there is no access problem, and that governments have not paid for peer review, copy editing, composition or any other value that a publisher adds, and that governments should not have an expansive role in the publishing market.

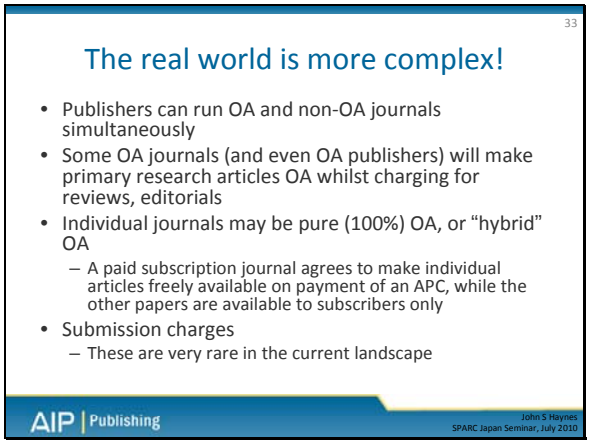
Types of Open Access



There are many types of open access and many terms, and it can be confusing. The first type of open access is "full open access," or the so-called "gold route" to open access. Here the journal makes the article available freely to anybody in the world on the web, and instead of charging the reader, the publisher charges what is called an article processing charge. It is paid by the author or their institution or their funding agency. Gold open access makes the article immediately available, but there is also the option for delayed open access where the publisher waits for six months or 12 months before making the article freely available. A second route for making content open access is the "green route." This is where the author posts a version of their manuscript on their own webpage, on their institutional repository or a subject repository. One of the main differences between green open access and gold open access is that green open access has no business model. Sometimes people think that open access means there is no peer review, but open access journals generally have similar peer review processes as subscription-based journals.

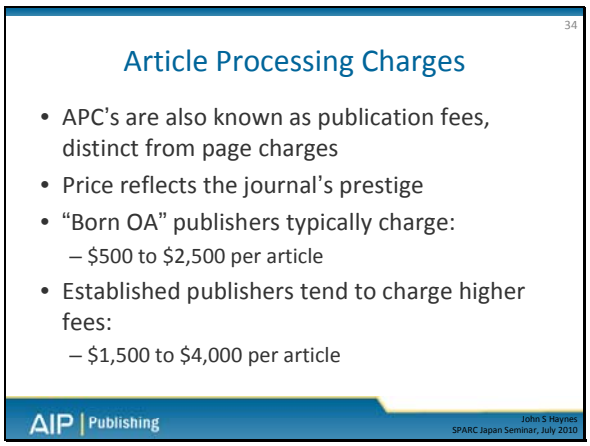
It is important to distinguish between open access and public access. For example, some journals available in full text on Japan Science and Technology Information Aggregator Electronic (J-STAGE) are made publicly available for free and there is no open access fee for those authors to pay.

Green open access is independent of the researcher's formal publishing activities. The author may send a version of their manuscript to a journal, and then they may submit a different version to their institutional repository. Currently there is no way to generate revenue from green open access and there is relatively little uptake in most subjects.

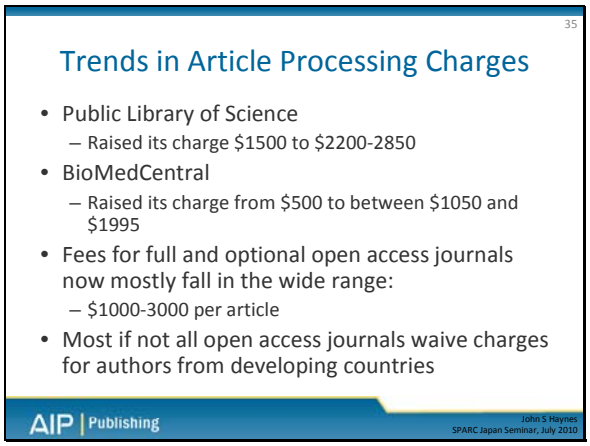


There are a lot of different versions of open access. If you are a publisher, you can have one of your journals open access gold, and one of your journals paid access. Some open access journals will charge for some of the content, so the primary research may be open access, but the reviews and editorials may be only available to subscribers. There is then the idea of hybrid open access, where the publisher gives the author the choice. If the author pays the open access fee, his or her article is made freely available to everyone. And if the author chooses not to pay the fee then the article is only available to subscribers. At this point, most open access journals only charge the authors for papers that are accepted for publication, but it might be fair to consider having a submission charge where for every paper that is submitted to the journal, the author is required to pay a fee to cover the cost of peer review, for example. Currently, this is rare.

An Overview of Article Processing Charges



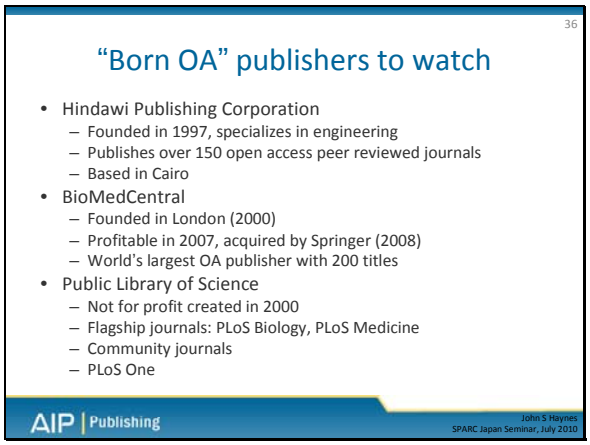
Processing charges typically reflects the journal's prestige. Higher prestige journals can charge more to authors. "Born OA" publishers, those who have always been open access, typically charge US$500 to US$2,500 per article. Established publishers tend to charge higher fees in the range of US$1,500 to US$4,000 per article.



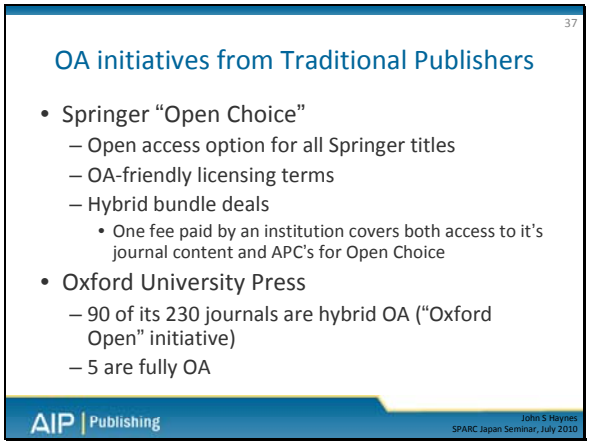
If you are considering article processing fees, the questions you should think about are: will your authors pay and how much will they pay? Looking at trends, prices are going up. The Public Library of Science (PLoS), which is one of the most well-known open access publishers, has two flagship journals in medicine and biology and their fees have almost doubled. Flagship journals with high rejection rates are more difficult to make open access because revenue depends on a small number of articles being published.

BioMed Central started with a price around US$500, but there has been a significant increase in the price they charge. Fees for most open access journals are between US$1,000 to US$3,000, with most having a policy on waiving charges for authors from developing countries when they cannot afford to pay.

The Open Access Publishing Landscape



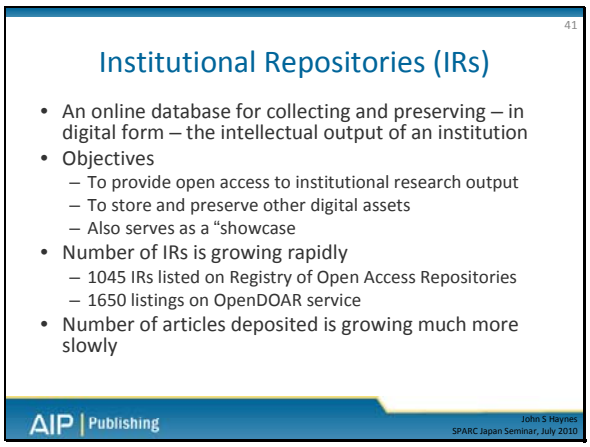
There are three main open access publishers to watch in my opinion, starting with PLoS. Its flagship journals are losing money, but the success of PLoS ONE is making up the difference. PLoS ONE does what might be called a light peer review and it has become extremely successful. It has published 4,000 articles and was declared to have an impact factor of over four a couple of weeks ago.



Traditional publishers have moved into open access, and are offering hybrid model options. With hybrid models, the institution pays one fee which covers both access to the journal content and the article processing charge for authors from that institution. In the West, learned societies are not only experimenting with the hybrid model, but are trying gold open access or author-pays models as well.

What is the proportion of all journals and articles that are open access? Despite it being a simple question, it is actually surprisingly difficult to answer. The Directory of Open Access Journals (DOAJ) lists about 3,800 peer review journals. There are 25,000 journals total, so 3,800 is about 16%, but because open access journals tend to be a lot smaller than non-open access journals in terms of content, probably a lot fewer than 16% of all journals are open access. Nevertheless, open access journals are growing rapidly. According to DOAJ, the growth rate currently is about 24% a year. In terms of uptake in interest from authors, Oxford University Press records state that about 6% or 7% of their authors pay an open access fee.

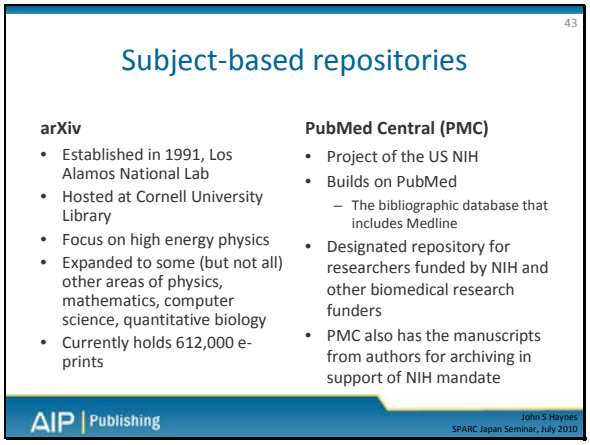
Different Types of Repositories



I would like to talk more about green open access models, in which an author deposits an article in an open repository. This repository may be an institutional one or a subject-based one.

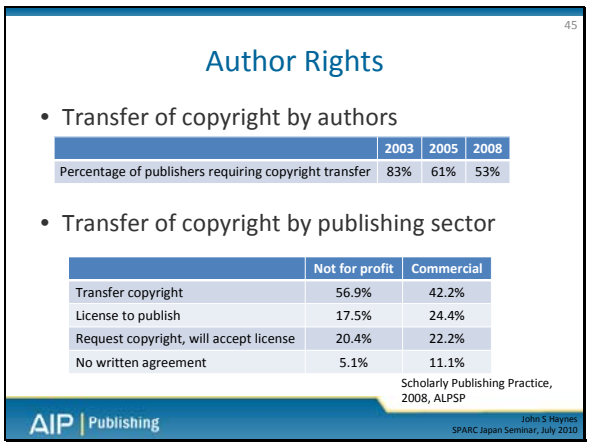
Why do institutions create institutional repositories? There are three main reasons: to provide open access to their own research outputs, to store and preserve their digital assets, and to provide a showcase for the academic community. The number of institutional

repositories is growing rapidly around the world, including in Japan. Although the number of repositories is growing quickly, the number of articles deposited in them is actually growing quite slowly, and so in some institutions and funding agencies mandates have been established requiring that if an author receives funding he/she must deposit a version of their paper in a repository. For example, NIH and PubMed Central were set up in 2005 with voluntary deposit schemes. In 2005, about 4% of authors were complying with deposit. In 2008, the US government passed a law that required authors to deposit their papers if they were going to get research funds, and after that deposits increased. Approximately 55-60% of papers published are now being deposited.

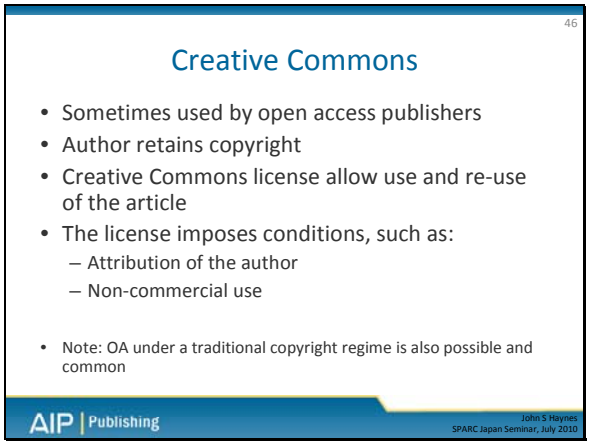


I will speak about subject-based repositories, which, as the name implies, form around communities of interest. arXiv is one such repository which focuses mainly on physics, but also includes some mathematics, computer science and quantitative biology. It is hosted at Cornell Library in the US and it is currently seeking funding by talking to other libraries and asking for support by essentially paying a subscription, which is interesting given that it is open access. Even if you get funds to set up an institutional repository, you need to have funds continuing year-on-year to operate it.

Who Should Own the Rights to Content?

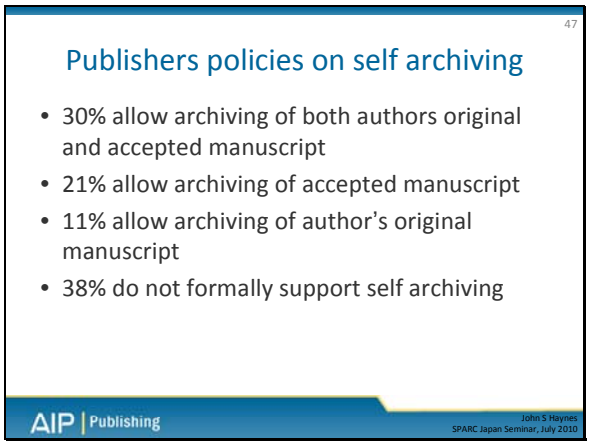


Regarding author rights, most journals require some agreement between the publisher and the author. It has been traditional to assign copyright for a print journal, but the requirement to transfer copyright is changing in the online world, and in the last few years, the percentage of publishers requiring a copyright transfer has dropped quite significantly. Do authors understand what rights they have? Studies suggest that most are very confused and unclear about this. Authors may sign a copyright form, but they probably do not read it.



A big development in copyright has been the adoption by some publishers, particularly open access ones, of the creative commons scheme. It is possible for anyone to create a creative commons license appropriate to their journal. The most common license is the creative commons attribution license. As the author or as the publisher, this license allows others to

copy, distribute, or display your copyrighted work, but only if the person using your material gives you credit or attributes you as the author of the work.



According to a SHERPA/RoMEO study surveying 560 publishers, 62% of publishers support self-archiving in their copyright policies. Decisions on self-archiving are important for journals to make when they adopt a licensing scheme like creative commons. If you have self-archiving, should you require that authors link from the self-archived version to your version on your own website?

Conclusion and Recommendations

It is very important to keep the big picture in focus. Every research community is different. If you are close to your community, stay close – understand what they are doing, understand the emerging trends and how researchers value what you do for them. I would encourage every journal to experiment in a controlled way with open access and how it might interact with other business models. I think part of having a big picture focus is having an international perspective and understanding when it is better to be independent and when it is better to collaborate.

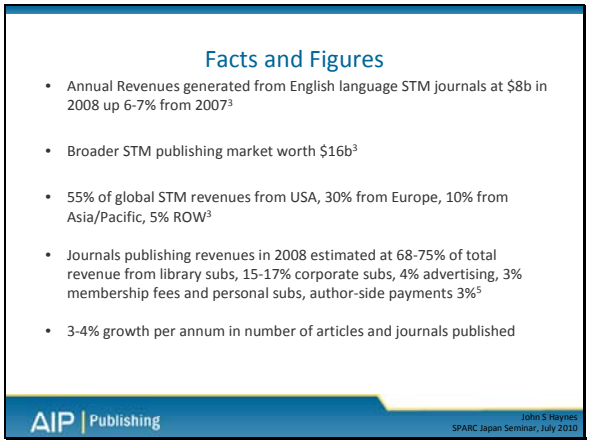
In relation to author rights, review your current copyright policy and your copyright agreement with authors, examine what you allow authors to do and question how this might be more author-friendly in the future.

Questions and Answers

Audience member (f): I would like to ask for more details about submission charges for open access journals. My society has been publishing an open access journal for 15 years. According to our system, authors pay submission charges. There are some foreign authors, who have said that they cannot afford to pay these fees, and so we have been waiving them, but when we think about the fiscal state of the journal moving forward, this will not be possible. Thus, we decided half a year ago that all authors would be treated equally.

I noticed that you said that over half of all open access journals waive article processing charges for authors from developing countries. I would appreciate it if you could tell us more about this. I would like to know if there are lists which state in detail which countries' citizens have their fees waived or if you have other information on this.

Dr. Haynes: One of the best lists to look at is the World Bank's list of developing countries. Look at the GDP for each country and decide how rich the country should be before you start charging fees for authors in that country. This method does not always work: China is generally on the list of low GDP countries, which would suggest that Chinese scientists cannot often afford to pay, but they are being increasingly well funded, and if you talk to people at PLoS, Chinese authors are paying at the same rate as Western authors.



Audience member (e): On your slide entitled Facts and Figures it says that there is a 3-4% growth per annum in the number of articles and journals published, and you stated that in 20 years the market will double. Does this mean that in 20 years publishers will be able to cover all of their costs with journal sales, which will be two times higher? Or will there be a different model at that time? I would like to know your opinion on this.

Dr. Haynes: I am sure that you have heard of the serials crisis. Part of it is a result of the size of the industry doubling and costs increasing over the last 20 years, and publishers trying to pass those costs onto customers and librarians. Since journal prices have been increasing faster than the rate of inflation, publishers have been bundling content together and selling it at a price which is low enough to mean that the cost of the bundle is less than the sum of the individual subscriptions.

Just as publishers have been bundling their content, libraries have been joining together to form consortia purchasing groups. To some extent, bundling and consortia have been able to solve the serials crisis, but at some point, if there is continued growth, then there will be continuing pressure on library budgets. This is why there is interest in an open access/author-pays model, because it scales with the size of the research enterprise. For example, if research funders are putting more money into research, in theory, there should be more money to pay for the publication of that research in terms of author fees. However, we are still in the early days of this model, so this is still theoretical.

Profile

John S. Haynes

John began his career as a research chemist with a PhD from the University of British Columbia, followed by a post-doctoral fellowship at the University of Oxford sponsored by the Canadian National Science and Engineering Research Council. He made a transition to scientific publishing in 1988 working for Taylor & Francis and then Academic Press. John spent 17 years at the Institute of Physics Publishing in Bristol, UK, serving from 1992 to 2001 as publisher of an impressive suite of physics journals, and from 2001 to 2007 as Head of Business Development, leading IOP's international partnerships in China and Japan. Prior to joining AIP, John spent almost two years as Editorial Director for Royal Society of Chemistry, where he put in place an ambitious development plan. Along the way, he earned an MBA, honed his skills in a whole array of business models for scientific publishing, and has led publishing workshops for organizations such as INASP. John joined AIP early in 2009 as Vice President for Publishing. He is responsible for AIP's publishing program including flagship products and services such as Scitation, UniPHY, and market-leading journals such as Applied Physics Letters and Journal of Applied Physics.