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Public Comment Meeting

Concerning

Public Access to Federally Supported R&D Publications

Public Commenters

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P R O C E E D I N G S

DR. HAUSER: Okay, folks, here is the one minute warning again. We are going to convene at 10:45 exactly, beginning our public commentary sessions. I am not going to announce the speakers, but the first four registered speakers are all going to be online by WEBEX and a combination of video and telephoning. We will hope that that technology works better than some of our other technology so far this morning.

I think we are ready to go and the first speaker should be accessible by telephone and/or WEBEX and we have five minutes.

STAFF: Thank you, Bob. This is Mike Feder here at the back of the room. The first speaker that we have up is Michael Carroll. So what I am going to do is unmute the line. If Michael is on the phone line, your five minutes is starting now.

Agenda Item: Public Comment

Session 1 – Private Individuals, Digital Repositories and Organizations

MICHAEL CARROLL: Thank you. I will say we are getting a little bit of an echo back hearing the WEBEX over the phone line. Can you hear me okay?

STAFF: Yes, it sounds great.

MICHAEL CARROLL: Hello everyone. Thank you for the opportunity to address this forum. I am sorry I was not able to join you live. With only five minutes, I want to get straight to business.

My name is Michael Carroll. I am the director for the program on Information Justice and Intellectual Property at American University. I have other hats that I wear. I am on the Board of Directors of Creative Commons and the Public Library of Science. I have done some pro-bono consulting with Spark and have been working on open access issues for at least 10 years. I am only speaking today in my personal capacity. I am not speaking on behalf of any other organization.

I am a copyright lawyer and one of my strong interests in the implementation of the OSTP Policy Memorandum is to ensure that copyright is managed appropriately and in a way that maximizes the benefits of public access. Toward that end, whatever repository is providing public access to publications will need a copyright license, as I believe has already been covered in the opening.

In my view the agency should be the party that takes the license, even if the repository is not a federal repository. The scope of the license that the agency

should take should include not only rights for the government itself to use the copyrighted works created with federal support, but also the right to sublicense. To give permissions to additional parties to use the publications. Here I mean the author's final manuscript after the changes from peer review have been included.

And the right to sublicense is important because as open access is developing, the importance of enabling reuse and productive reuse, is increasingly becoming a clear part of what open access should be about.

At a minimum, one of the reuse rights that needs to be very clear is the ability to bulk download the publication for the purpose of computational analysis. Right now the NIH Public Access Policy has been hobbled by a set of agreements that undermine the ability for researchers to text mine a significant portion of the full text publications in PubMed Central. There is no good reason for that on the basis of copyright law, it is merely a policy decision that was made in the early days.

Now with the new directive and the requirement not only that the public can read and download, but also analyze the publications, I understand analyze to mean analyze with computational analysis. To do that effectively requires ability to bulk download and reserve a

reference copy for future use.

In addition, I would argue that the agency should grant library repositories the right to mirror the collections if the publications are sitting on a federal open access repository. There is no reason why the university community should not also be able to provide access. More points of presence increase the impact of the publications, increase the impact of the federal investment in those publications, moreover, lots of copies keep stuff safe, is the principle and it creates more opportunities for long term archiving preservation of the publication record.

Agencies should also consider other end-user/user rights for reuse, the right to abridge, or translate into other languages, should be considered in the implementation of these policies.

The last point I wanted to just briefly touch on is the question of the embargo period. The embargo period is the recognition that the subscription financing model for publication requires some delay. The directive says you begin that analysis at 12 months. I would just argue that the long experience we have now had with a six month embargo in Europe that has shown no impairment of subscription revenue, would suggest that the conversation

should quickly move from a 12 month starting point to a six month presumption. And we would need evidence to show that six months would be too short to overcome the presumption that six months is actually a more reasonable embargo period.

With that I will close but I thank you for the opportunity to make these comments and look forward to hearing the others that will follow.

STAFF: Thank you, Michael. Up next is Jean Public. If you are on the line, your time is starting now.

(No response)

STAFF: It looks as though Jean is not on the line. We have given the one minute for her to sign in.

So now we are going to move to next speaker, who is with us right now, it is Timothy Vollmer. Let me get his video up. Whenever you are ready I will start the time.

TIMOTHY VOLLMER: Thanks so much. Hi there, everyone. My name is Timothy Vollmer and I work at Creative Commons. Thank you so much for having me today.

Creative Commons, for those of you who don't know, it is a non-profit organization and we are headquartered in the United States but we operate around the world. What CC does is create three standard copyright

licenses that allow creators to share their work on more open terms than the default, all rights reserved. We like to call our approach, some rights reserved.

CC licenses are used around the world by anyone really who wants to share their creative work. They are used by musicians, photographers, libraries, scientists, authors, and even government bodies. You might have noticed Creative Commons licenses being used on big websites like Wikipedia. CC licenses, especially the license called the Creative Common Attribution License, or CC-BY, has been used by authors who want to share the research publications under open access.

CC-BY is also the default used by open access publishers like the Public Library of Science, (?) to BioMed Central. These open access publishers are sharing up to tens of thousands of articles freely OpenAccess.

At Creative Commons we were really glad to see the Obama Administration supporting the principle that the public should have free access to the public research that are funded. We just think this makes sense.

Now as you build your agency public access plan in the next few months, we really urge you to consider supporting authors who wish to release their scholarly research as open access. I would like to touch briefly on

two points that we think are important for you all to consider.

First, your plans will have to enable users to read, download and analyze the publications that are created as a result of government funding. We, as well as many others, think that when we are talking about analyzing, this should include programmatic analysis using computers. When you do this it usually requires enabling bulk access to the text of these articles. We agree with Professor Carroll, in that we think it is crucial that agencies build in these permissions for bulk access articles via your repository. This will enable users to conduct text-mining, and other sorts of computational analyses on the entire corpus of the articles.

Second, since it is the goal of the directive to enable broad reuse of the publicly funded research, we think that it is important that agencies make it clear the rights that are available to reusers. We think that the administration has taken an important first step in removing these price barriers. We think that the agencies themselves can take the next logical step by removing permission barriers, as well.

To do this, agencies could allow authors to deposit their articles under a worldwide, royalty-free

copyright license that allows the research to be used by anyone for any purpose, with the common requirement that attribution of course, be given to the authors.

We think that the communication of clear, unambiguous rights to research articles can help break-down barriers to reuse and really help support some of the overarching goals of the directive.

So Creative Commons is standing by to offer assistance and we would be happy to talk or email with any of you. We have also submitted a written statement for the record.

Thanks again for your time and I really look forward to the rest of the meeting.

STAFF: Thank you Timothy. Next we have Francis McManamon. So Francis, are you there?

FRANCIS MCMANAMON: Yes, can you hear me?

STAFF: Yes. Are you planning to use the video?

FRANCIS MCMANAMON: No, I will just be speaking.

STAFF: Whenever you are ready you can start.

FRANCIS MCMANAMON: Thanks very much, Michael, and it is nice to join you all from Tempe, Arizona, this morning to talk about these topics.

My name is Frank McManamon and I am the executive director of Center for Digital Antiquity, which is located

here at Arizona State University. We are a disciplinary repository for archeological data, which includes quite a few documents that are the result of various kinds of archeological research.

This morning I would like to talk about a couple of topics related to federal research and publications or documents that are related to it. I think most of the discussion so far in the presentations that we saw, talked about the more or less traditional ways that research gets published in peer reviewed journals or peer reviewed books or things of that sort.

I think that in this particular matter it is important to recognize that there are lots of other documents that are produced by federal research, that never get into a peer reviewed journal or never are actually published as a traditional scientific monograph or publication of other sorts.

For example, in U.S. archeology, much of the information that is produced by investigations, actually are in technical reports, with very limited distribution, for the most part. Much of this information is in fact produced, annually by federal agencies or as contracts to federal agencies. It is in part these kinds of reports that we are trying to get into our repository called, TDAR,

The Digital Archeological Record, so that they can be more widely available and preserved over the long term.

You may not be aware of this but in the United States, federal agencies actually produce most of the archeological information that is created. Typically these investigations are done as part of environmental impact activities or project planning activities, for example when a road is built or a water distribution system is created in a community, as part of the planning for those projects, archeological investigations occur to make sure that there are no significant archeological sites that are destroyed by that particular activity. Or if there are important sites, that somehow the data are collected to mitigate the impact.

Federal agencies actually report between 50,000 and 30,000 of those kinds of investigations annually. A wide range of federal agencies actually engage in this kind of activity. There are land managing agencies like in the Department of the Interior, the Bureau of Land Management, the Bureau of Reclamation, the National Park Service, the Fish and Wildlife Service. There are agencies that provide funding for these kinds of activities like the Federal Highway Administration in the Department of Transportation or the Environmental Protection Agencies.

There are regulatory agencies that require that these kinds of studies be done before granting a license, like the Federal Energy Regulatory Commission. So there is a lot of federal involvement in these activities but it is very diffuse. But if you put it all together, it is quite a substantial amount of research information.

We think that the open access policies that the administration has put forward, ought to be broad enough to encompass that particular kind of information as well. So that is one of the recommendations that we have for the consideration of OSTP as it moves forward on this. We have also submitted a written document along these line. Hopefully you can refer to that as well.

The second major comment that I want to make about this kind of interaction between digital disciplinary repositories like TDAR and formal publishers, is that we discovered in some of our work that there is a good cooperative kind of relationship that can be developed with the publisher community. We have a couple of publishers that are actually using TDAR to advertise their books in articles in journals, by putting portions of their materials into our repository. We also have some supplemental information, as publishers move increasingly to provide for the supplemental data for their journal

articles, repositories like TDAR, particularly disciplinary repositories –

STAFF: Sorry Frank, we reached the end of your five minutes. So we appreciate your comment and we will look for your written comment as well.

Next up, we are moving to our live presenters. When you are ready Carol, the microphone is all yours.

CAROL MINTON MORRIS: Thank you, good morning. My name is Carol Minton Morris. I am the communications director for the DuraSpace organization.

I am here today to introduce you to DuraSpace, which is an independent not-for-profit organization that is committed, as you all are, to our shared digital future. We collaborate with academic, research, cultural, government, and technology communities by supporting open source repository projects that in turn help knowledge communities ensure that current and future generations will have access to our digital heritage.

We also provide hosted services that include DuraCloud and archiving and preservation service, and DSpace direct, a turnkey repository solution that allows organizations to archive and preserve content with minimal maintenance. So you can really think of DuraSpace as your open access as your pipes and plumbers.

We provide leadership guidance and infrastructure to encourage community development of DSpace and Fedora open source repository systems that are used by over 1,500 institutions worldwide for disseminating and preserving digital content. Scholarly resources managed in DSpace or Fedora repository, include thesis and dissertations, datasets, audio and visual fi ad many types of imagery, and a lot more.

These institutions include federal government organizations such as the Smithsonian Institution, The National Libraries of Medicine, The National Aeronautics and Space Administration, the Food and Drug Administration, The Department of agriculture, and others.

DuraSpace supports the initiative to promote pen access to dissemination and long term stewardship of publicly funded research. We strongly recommend that technology solutions deployed for this initiative be based on open source software applications, which have a number of advantages relevant to the current needs. For one thing, licensing expenses are non-existent compared to other often steep costs of commercially licensed software. Open source software comes with freely available source code, as well, and is supported by active and engaged communities of practice worldwide.

Government agencies and departments deploying open source applications like DSpace and Fedora, are able to join a global community of developers to add or change features to meet specific requirements. Changes may be contributed back to the community so that others can take advantage of them and help maintain them. Or they may simply use the software without any obligation to write program code themselves.

Finally, open source software is most often based on open standards, which as we all know, facilitate interoperability with other applications that adhere to standards.

Perhaps most importantly, users of open source software may invest in its use without any fear that changes to proprietary code will someday stop an application from functioning or, even worse, become obsolete and simply disappear from the marketplace, stranding users without a growth path. It seems to us that this kind of assurance is critical when one is considering the preservation of our nation's research data and publications.

We are eager to connect you with our communities of practice so that you can learn more about our repository projects and our hosted services in order to develop

flexible and durable open access content management solutions.

I would like to thank the National Academies for providing the opportunity to comment. Please feel free to contact us through our website at DuraSpace.org or find me at the break and let's talk. Thank you very much.

STAFF: Thank you, Carol. Next up we have Heather Reid. Is Heather here?

(No response)

STAFF: Does not seem so. Next we are going to go to Geoffrey Bilder. Geoffrey, whenever you are ready the microphone is yours.

GEOFFREY BILDER: My name is Geoffrey Bilder. I am director of strategic initiatives at CrossRef and I have come to talk to you a little bit about an initiative that I think can serve as a template for future collaboration between funding agencies and publishers, and that effort is called FundRef.

First I should explain a little bit about CrossRef because like many infrastructure projects, if we are successful we are largely invisible. CrossRef, for those of you who don't know, is an organization that manages the digital object identifier system, or DOI system, and that is a system that many of you perhaps see

when you are following citations to online scholarship. It is a system for ensuring that the otherwise fragile links on the web, can persist over decades, perhaps even over centuries.

This was a system that was started in 2000, by a group of publishers who formed CrossRef as a non-profit organization in order to administer and maintain this scholarly citation network. As I said, the only time you should ever encounter us or be aware of us, is when DOI's don't work, and hopefully that is a rare occurrence. However I will note, that link fragility on the web, is a particular problem for some reason, for government websites. So a lot of the issues at Link Fragility, that we are trying to address with Link Fragility, are of a special concern for government websites.

I should point out that the infrastructure that CrossRef has built is not just used by sort of traditional, stayed, subscription based scholarly publishers, but is also used extensively by some of the new upstarts. Organizations like PeerJ, e-Life, Faculty of a 1000, and a lot of the open journal systems that are being developed by the Public Knowledge Project.

CrossRef has inspired the creation of similar organizations to handle identifiers for datasets, in the

case of DataCite, and for authors, in the case of ORCID. And since we developed our linking infrastructure, we have also developed a number of other services that span publishers, I forgot to mention our over 4,000 publishers, and these include link referencing, reference citation service, meta-data feeds that are available via open standards like OAI-PMH, and linked open data standards like content negotiation. Plagiarism detection systems and an update service that allows people to be alerted to the fact that content publications have been updated, corrected, retracted, and withdrawn.

The net result of this is that our services, are tools, are built into most publisher workflows. Critically they are built into the publisher workflow at the point where the publisher is dealing with the author and collects information that is relevant to a publication information like bibliographic information, information like funding sources, licenses, and so on and so forth. We make that stuff available, like I said, standard APIs.

Our most recent project, the one I am mostly here to talk about is something called FundRef. It is collaborative service developed by funding agencies and scholarly publishers, and run by CrossRef in order to provide a standard way of reporting funding sources for

published scholarly literature. Clearly this is important for funders who need to be able to keep track of the literature that is discussing the research that they are funding. And, of course, this is one way that they measure output, and funders have not had a way of doing this, a lot of funders have tried to build a system independently, a lot of publishers have tried to build these systems independently, but by coming together and agreeing on a standard, we managed to produce a service in just a year.

The FundRef system allows publishers to create and submit standard meta-data consisting of funder name, funder identifier, and grant numbers, and the service is based on an open, that is NCC0, a taxonomy of more than 4,000 funding agencies. The funding agencies can submit queries to CrossRef. They can submit the name of the funder or the identifier of the funder, and retrieve of DOIs referring to publications that list that funder as a source for funding the research.

Along with that meta-data they can get references, ORCIDs, licensing data optionally, and optionally again, links to the full text on the publisher platforms and perhaps most importantly, information about updates or corrections to the literature. Clearly this can serve as a fundamental way to help funders identify the

research that they have funded.

Thank you.

STAFF: Thank you, Geoffrey. At this point all the registered commenters have spoken. If there are other individuals in the room who want to provide a five minute comment, we have a sort of open-mike time right now.

For everyone who is speaking, can you make sure you state your name before you start.

DR. HAUSER: So if there are no other volunteers to speak, I am tempted to tell you about my experiences as a researcher, but in the interest of balance, objectivity, and independence, I won't. That being the case, I declare this session closed. You have a more than ample time now for lunch, wherever you may wish to go in the neighborhood. We will however, reconvene promptly for our next session on public comment, where we will hear from folks from libraries and library organizations, universities and university organizations, and researchers and students.

We will reconvene promptly for that at 2 o'clock this afternoon.

(Luncheon recess)

A F T E R N O O N S E S S I O N (2:00 p.m.)

DR. HAUSER: Okay, it is 2 o'clock and we are going to come back into session. I hope you have all enjoyed your extended lunch break. We are now beginning a 1.5 hr session, may last that long, until 3:30, for public comments, during which we will hear from libraries and library organizations, universities and university organizations, researchers and students. Our first speaker is Julie Schneider from the University of Wisconsin-Madison. Ordinarily I would not be introducing our public speakers but since she is a fellow Badger, I thought I should do that. Thank you.

Agenda Item: Public Comment

Session 2 – Libraries and Library organizations, Universities and University Organizations, Researchers and Students

JULIE SCHNEIDER: Thank you for the intro on that and I am proud to be a badger but today my comments are going to be own. My name is Julie Schneider and I am the director of the Ebling Library at the University of Wisconsin-Madison. The Ebling Library supports the University Schools of Medicine and Public Health, Nursing, Pharmacy, and Veterinary Medicine, along with UW hospitals and clinics. However the comments and recommendations that

I am sharing here today, are mine only and are based on the work that I have done in assisting the NIH funded faculty, researchers and students, on our campus, in complying with the NIH Public Access Policy.

Since the language of the NIH policy was written into law in December 2007, I have assisted campus faculty and researchers in nearly every department on campus in complying with the policy. With over 100 presentations, to nearly 1,500 faculty and staff, thousands of questions answered, and submission of over 700 manuscripts to the NIH manuscript submission system, I have gotten a good feel for the strengths of the NIH compliance process and the challenges that our researchers face in their efforts to comply with this important policy.

While there have been challenges since the policy started in April of 2008, the outcome of providing public access to over 7,000 publications resulting from NIH funded research at the UW Madison, to the citizens of the state of Wisconsin and the world, have made the efforts necessary and beneficial.

While the national NIH policy compliance rate is just above 75 percent, the compliance rate at the UW Madison is just under 90 percent. So obviously I still have some work to do.

To accomplish the goal articulated in the memorandum of the White House Office of Science and Technology Policy, I would like to share my following comments and recommendations. One, encourage agencies to review and replicate when possible, the successful processes and resources developed by the NIH. Require that articles become publicly available no later than 12 months after publication. Ensure that agencies collaborate to develop procedures, standards in policies that are consistent, seamless, open, and non-duplicative. It has worked very well when I have assisted our researchers that have both HHMI and Autism Speaks funding, because I can use the same system to make them compliant with those funders as well.

Require persistent unique identifiers such as the PMCID, and a researcher ID such as ORCID, to facilitate accessibility, demonstrate compliance, and ensure consistency. Provide mechanisms for determining usage impact and other metrics for publications. Develop open standards for linking and meta-data to enhance interoperability across agency repositories and between indexes, publications, data, and other scholarly output.

Of course, require that all publications made publicly available as a result of this initiative, are

accessible to persons with disabilities, and strongly encourage all agencies to develop the same value added services that NIH provides as part of the submission and posting process. Including all acceptance of all file types and submissions, reformatting of documents to a single standard format, and embedded links to an index, other full text, chemical structures, genomic sequences, and more.

Information is a valuable national asset whose value is multiplied when access is provided free to the public. There are multiple examples of new products and services that were developed as a result of U.S. government data being released for use by entrepreneurs, innovators in the public.

The benefits of providing expanded access to the publications and data from federally funded research, can fuel innovation and create needed jobs.

We need to leverage the tax payer investment in research and development, at colleges, universities and other institutions across the United States, to advance scientific and technological change while ensuring long term stewardship to the intellectual assets of our institutions and our country.

I want to thank the National Academy of Sciences,

the National Research Council, and today's sponsoring agencies, for the opportunity to share my comments. I would be pleased to provide any additional information needed in your efforts to build this valuable resource for all.

I will end by sharing that I have had faculty ask, why, when I have a full time job otherwise, why have I been assisting them with the NIH Public Access Policy for the last five years? It is a passion of mine and because I think it is terribly important.

Thank you.

STAFF: Thank you. So next up we have Jesse Lambertson.

JESSE LAMBERTSON: Hi, my name is Jesse Lambertson from the Arlington County Library and from Meta-Media Management. My views here are my own, I just want to say that. I want to thank the National Academy of Sciences and the National Research Council for posing this meeting.

Obama's initiative to make a more accessible and transparent government is finally influencing the areas of major research and big data. Large-scale projects have been funded by the government for years, of course, projects that have changed the country and spurred new ideas in creativity.

The famous one of course, is the early internet technology. A lot of federally funded research in technology and social sciences on topics of international import, has been classified, obviously, but what makes this new push so interesting for America is that Obama has also pushed for more access to the government through that very technology that the government funded, the internet itself. So it seems an appropriate step to use this open data initiative and open access publication format to go along with that.

In addition, the general trend we already see, internationally and across disciplines, toward open access publication, promises to be pushed even further with a February 22nd memorandum because any increased access to peer review journals and big data, will be made possible by the internet.

I am not here to preach the internet only, I believe in access to multiple formats of publication, the internet is just one of the things we are talking about. But there is certainly a really good way to use the technology as far-reaching as the internet.

One of the issues of the internet is the fermentation of knowledge generally, from domain to domain. One person writes a meaningful essay in one place, while

another person writes another meaningful one elsewhere.

I think about Don Swanson from the University of Chicago, who just died last year, one of the most interesting aspects of his use of peer reviewed publications was his belief that many new ideas could be inspired by articles that are already in existence. He advocated the multi-disciplinary approach where scholars and scientists could find new ideas by reaching across as many fields publications as possible looking for a connections, trying to find new unified idea in the midst of field-specific publications.

Now with the inclusion of open data in the mix with openly accessible peer reviewed publication, we can expect to see even more inspiration and new ideas created because these R&D publications will not be hidden behind pay-walls, and large-scaled research and development can be written for the nation to see and study, quite an essential activity if one is committed to finding new ideas in high level research writing and that affects many fields. This multi-disciplinary approach is extremely important, I think.

In February, just four days after the Open Data Memorandum was published, I attended the Finding the Needle in the Haystack Symposium, hosted here by the Board of

Research Data and Information, on big data, data types, et cetera, some of you might have been here. It was an impressive event but none of the data discussed there, as I remember, is available publicly for free. It is only available if you have a high-dollar subscription through an academic research library, colleges that are usually attended by people for four years, sometimes six, if they get a masters. After that, most Americans lose access to these high-level research data and publications.

The Memorandum professes to change that a little. Many research institutions, Harvard, MIT, to name a few, I think Dr. Contreras mentioned this earlier, have drawn attention to in blogs and acts of library advocacy, the ever increasing costs of subscriptions to corporately controlled peer reviewed research articles.

I am not here to decry that, there are other platforms for that, as much as I am to just comment to the effect that all the important information contained in those corporately controlled publications is essentially hidden from Americans. There are even very few public libraries with the funds to subscribe to these corporately controlled peer reviewed research writings.

I know Open data is multi-disciplinary in scope, I would hate for the majority of the populous to miss out

on information from which major plans are carried out in America, because that is really what we are talking about. It is one thing to handle information well, it is another thing to have access to large-scale information with which one can turn his or her own thinking into a meta-tool in order to rework the way he or she already thinks.

I believe this is one of the greatest impacts we will see with open data and the open access peer reviewed publications that will follow. We will see not only the creativity discussed above, and increased potential for economic strength, but we will also see theoretically, also be able to train people to access higher level information because that will cause real change.

Thank you.

STAFF: Thank you. Next up we have Rebecca Kennison.

REBECCA KENNISON: Thank you. My name is Rebecca Kennison and I am the director of the Center for Digital Research and Scholarship, which is part of the Columbia University Libraries Information Services.

CDRS's mission is to increase the utility and impact of research produced by faculty at Columbia, by creating, adapting, implementing, supporting and sustaining innovative digital tools and publishing platforms for

content delivery, discovery, analysis, data curation and preservation.

We support in our work, an institution, Columbia University, dedicated to advancing knowledge and learning at the highest level and to conveying the products of its efforts to the world. Within this context we support making the results of federally funded research to, and useful for, the public, industry, and the research community, the objectives of the White House Memorandum on increasing access to the results of federally funded scientific research.

We appreciate in particular the calls for agency plans, to be developed in consultation with all stakeholders, which include universities and their libraries. We believe that the development of consistent federal agency policies to ensure access to federally funded publications will accelerate discovery, improve education, and empower entrepreneurs to translate research into commercial ventures and jobs.

To realize this potential we strongly encourage agencies to be as consistent as possible in their policies and requirements to minimize the cost and complexity of compliance for both principal investigators and research administration.

If policies are consistent then a range of possibilities exist for any given agency to fulfill the requirements of the Memorandum.

Universities such as Columbia, have already made significant investments to support the development of institution or repositories that can, and already do, play a role in sharing the new knowledge produced by our researchers. Likewise, multiple repositories, whether maintained by federal agencies, publishers, societies, commercial entities, or some combination of these, could play a similar role.

Any repository selected to provide access to federally funded publications would however, need to be certified as able to fulfill certain criteria agreed upon by all agencies. A suitable repository should be defined as one that meets all requirements for ensuring full public accessibility, productive reuse, by which I mean downloading, text-mining, machine analysis and computation. Interoperability with other repositories housing federally funded publications, metadata, based on open standards, and a commitment to long term stewardship and preservation.

It is our hope that providing accessibility to both machines and humans, and ensuring interoperability to long-term archives of publications, however these might be

defined, might be a role for collaborative efforts by scholarly and professional societies, universities, and federal agencies, acting in concert.

In support of the researchers that everyone within the scholarly communications system should realize we all must serve, we urge the uniform adoption by publishers of standards for publication, such as the National Library of Medicine's widely used journal publishing DTD and the proposed mining text-mining interface. And we implore publishers to make available for access and use, not only the PDF of the publication, but also the XML, that they all most all, already generate.

Optimally these machine and human readable outputs would be provided by publishers to the agencies' designated repository or repositories, without additional charge to authors, to their institutions, or to the public.

I have much more that I could say, but I am sure others will make those points more eloquently. Thank you.

STAFF: Thank you so much. Now next up we have Heather Joseph. When you are ready the microphone is yours.

HEATHER JOSEPH: I am Heather Joseph, the executive director of SPARC. As an international alliance of academic and research libraries dedicated to promoting

the expanded sharing of research, SPARC has had pretty extensive working with both private and public research funders in developing and implementing successful open access policies.

We support the recent OSTP Memorandum, and we also applaud OSTP for its leadership in seeking policies that ensure ready access and full use of articles reporting on publicly funded research, in order to accelerate discovery, improve education, and fuel the translation of this research into innovative new products and services.

In the time allotted, I want to just emphasize four elements that in our experience, and in the experience of the research funders that we have worked with around the world, have shown to be crucial in order for agency policies to achieve the laudable goals of the OSTP Memorandum.

First and foremost, as we have heard a lot about earlier, we need both barrier free access to and full digital reuse of the full text of digital articles. Providing anything less, such as simply linking to a PDF or providing a metadata solution, would deeply inhibit the ability of the research community and the public, to unlock the full value of this information.

Policies must ensure that appropriate rights are

assigned to enable full reuse, including text-mining, data-mining, and again, as we heard earlier, computational analysis. We really need policies that enable forward thinking, forward looking, digital use of individual articles as well as the full corpus of digital articles. We don't want to end up in a single serving, siloed, read only kind of a world.

The second element I want to emphasize is that where access to research is concerned, faster really is better. To truly facilitate the kind of innovation in research, education, and commerce that the Memorandum calls for, the public needs to have access to the latest research as quickly as possible.

While for us an immediate access is the ideal, we do support the inclusion of a flexible embargo period that is in line with emerging standards around the world. That six months, no longer than six months, for life and physical sciences, and no longer than 12 months for the arts, humanities and social sciences. Longer delays simply undercut our ability to begin translating the results of our research into tangible benefits as quickly as possible.

Third, there really isn't any need to reinvent the wheel. When we are developing policies, agencies should avoid unnecessary duplication of existing

investments, and wherever possible, take advantage of proven blueprints for success. We strongly encourage agencies to consider leveraging the significant public investment in the highly successful NIH PubMed Central repository infrastructure, as well as the investments made by higher education institutions and their libraries in non-proprietary digital archives. This can provide cost effective, stable, long-term solutions for housing digital articles in an environment that can truly enable interoperability.

This is particularly important to also ensure that there are clear pathways for linking these digital articles to the second layer of crucial research output digital data.

The final point is one that Rebecca just made, consistency is key. Thirty-one flavors may be great for ice cream, but it is not such a great approach for implementing research access policies. We ask that agencies be deliberately as consistent as possible in their compliance requirements in order to minimize the cost and complexity to both individual investigators and administrators at their research institutions.

Harmonizing actions that seem as simple as using the time of acceptance of an article in a journal, as the

standard action point for compliance, provides a proven, simple, effective mechanism for minimizing confusion and maximizing compliance.

This is one of those rare moments in time that we as the citizens who fund research, and the agencies we entrust to invest our tax dollars in that research, have the chance to ensure together that the policies that we choose to support the communication of research results, are just updated to better serve the interest of the research academy and the public at large. We have the chance to optimize our use of the internet for exactly what it was created for, to revolutionize the speed, efficiency, and effectiveness of how we not only conduct but communicate research.

SPARC and our member libraries, look forward to working OSTP and all the federal agencies here, in productive and positive way to construct and implement simple and effective policies that can make this vision of 21st century research communication a reality for us all.

Thank you.

STAFF: Thank you so much. Next up we have John Vaughn. The microphone is yours whenever you are ready.

JOHN VAUGHN: Thank you. I am John Vaughn, executive vice president of Association of American

Universities, presenting the joint comments of AAU, Association of Public and Land-grant Universities, and the Association of Research Libraries.

The OSTP Public Access Memorandum provides new opportunities for a productive partnership between research universities and federal research funding agencies, to accelerate the pace of scientific discovery, promote innovation, and enrich education.

AAU and APL Universities, together, conduct nearly two-thirds of federally funded research. Their research libraries supply much of the infrastructure in support of that research. The policies federal agencies develop should minimize the cost in complexity of compliance with grant requirements for both principal investigators and their institutions. University budgets are stretched thin, and federal research funding is under considerable pressure.

Therefore, implementation of broad, national public access policies should proceed in a manner that respectfully balances the considerable benefit that will come for making research results more widely available, against any sacrifices the current research progress that those efforts may entail.

Our associations believe that the following

functionality considerations for repositories will be key to a achieving the goals of the OSTP policy directive.

One, copyrights should not be assigned to final peer reviewed scholarly publications in an exclusive manner that will prevent preservation, discovery, sharing and machine based services such as text-mining.

Two, agency compliance requirements should be transparent and deposit requirements should be easy for researchers to accomplish. Agencies should develop effective grant-tracking tools that will enable universities to manage effectively compliance with agency regulations. To the extent possible, requirements should be comparable across agencies to minimize the burden on universities of mandated compliance.

Three, peer reviewed scholarly publications should be linked openly to their source data to the extent possible, to allow reuse in replication of results.

Four, open standards will be necessary to ensure interoperability and the metadata describing publications, should be based on open standards to ensure that the public can read, download, and perform text-mining on publications.

Five, agencies should require the use of persistent, unique, identifiers for grants, publications,

data, and authors, to foster reuse of content in development of new services.

Six, a variety of metrics should be supported to provide information on access, use, and impact, of the final peer reviewed scholarly publications.

Seven, a variety of scholarly publications from publicly funded research should be accessible to persons with disabilities.

Six, excuse me, seven, a variety of metrics should be supported to provide information on access, use, and impact of final peer reviewed publications. We have already said that – running out of time.

Both downloads, finally, of scholarly publications for research purposes should be allowed under specified terms and conditions that are developed by agencies in consultation with their external constituencies.

I will close with some comments about institutional repositories. Members of the university community are initiating a study of the feasibility of federating existing institutional repositories into a virtual repository, which could serve as distributed system in support of the goals of OSTP Public Access Policy. Such an approach would build on existing cyber infrastructure

capacity already in place.

Should this study demonstrate that such a system could be feasibly integrated into and extend current capacities, we encourage OSTP, federal agencies, and other pertinent partners, to join with research universities in the creation and use of this as one component of the OSTP Public Access Policy.

There are a number of factors that this feasibility study will have to address, but we do believe that this is a promising approach. Our three associations firmly believe that the OSTP policy provides an extremely effective framework for expanding public access in ways that will be enormously beneficial. We stand ready to work with the agencies in its implementation.

STAFF: Thank you. Next up we have Elliott Maxwell. Whenever you are ready the microphone is yours.

ELLIOTT MAXWELL: Thank you for the opportunity to address the Board. My name is Elliott Maxwell and I directed the Committee for Economic Development Study of access to tax payer funded research.

The Committee for Economic Development is an organization made up of business CEOs and university presidents that focuses on economic development and its impact on the society. It traces its roots back some 68

odd years, to its place in helping develop the Marshall Plan. I want to focus really on why we care about this issue of openness and access.

The overarching purposes of public access policies are to aid researchers, accelerate the progress of science, increase the overall productivity of the research enterprise, spur innovation, and stimulate economic growth for the benefit of all. Public access policies are not meant to ensure or support any particular business or business model, nor should they be designed to impede or hinder any particular business or business model.

As Nobel Laureate Joseph Stiglitz wrote, the primary input for the creation of new knowledge is prior knowledge. So policies should be directed at broadening and quickening access to that prior knowledge.

In its 2012 report, The Future of Tax Payer Funded Research, Who Will Control Access to the Results?, CED analyzed the NIH public access model based on four years of experience with it, as well as the economic literature on the cost and benefits of sharing information and data.

The Board also examined every public statement that we could find, congressional testimony, regulatory filings, filings regarding the creation and implementation

of the NIH policy, by proponents and opponents alike. A copy of the report is available on the CED website.

The report concluded that the NIH Public Access Policy has substantially increased public access to research results, with benefits that far outweigh the cost and should be extended to other federal agencies, which as you know, the OSTP policy announcement directed.

The policy accelerated progress in science by speeding up and broadening diffusion of knowledge, not only to researchers in the field of the study, but to other researchers who do not have access or who are unlikely to subscribe to subscription-based publications. Greater diversity among researchers led to the exploration of a larger variety of research results.

Why is this important? It is not to dimension the role of experts in a particular field, but there is a kind of proximity paradox. When we want to know something we turn to experts who think they know about that subject. We turn to the people we know. But it is vaguely akin to the old joke about why you would be looking for your car keys in a parking lot under the only street light – it is because you can see the ground there and they may not be there, they may be in other places. The broadening and the diversity of research paths leads to quicker development of

science.

Others have better solutions, others may make contributions that one would not foresee. Broader dissemination of research results generated more follow-on research, made it easier to locate research, and avoid duplicative and dead end research. It spurred commercialization, increasing the government's return on its investment.

I particularly direct you to Heidi Williams' work at MIT on comparing the results of Solara and the Human Genome Project, particularly in its impact on the commercialization of research. It's a new way. The sharing of information is a new way of thinking about value, a new way of extracting returns from the work of researchers. IP thought, and it is based on the notion that one has to have incentives to do research, one had to have incentives to monetize that research, sharing provides a different way of thinking about adding value and one that the research tends to support.

The report found no persuasive evidence that greater public access has substantially harmed subscription supported STN publishers, threatens the sustainability of their journals, or their ability to conduct peer reviews. There was no evidence of a reduction in traditional

publishing outlets, while open access outlets have grown substantially. There was no data submitted by subscription based STEM publishers, who have the best evidence of what is happening. In contrast, what they provide to financial analyst suggests a very rosy future.

What you should keep in mind, one is to focus on the researchers. What will make it easier for them to locate and access research and make use of it, including copying, distributing, displaying, linking, translating, et cetera. Access must be machine readable, subject to text and data mining, as other people have said before.

We need to go beyond access to the articles and build consensus on the reuse of the underlying data, computer programs, prtocols, algorithms, so research can use tools of their own choice. It is unlikely that all fields will have the same requirements, but the success of the NIH policy suggest it is broadly applicable and should be changed to reduce access only if data and evidence is provided.

Thank you very much.

STAFF: Thank you. Next up we have Paul Koch.

PAUL KOCH: Thank you for the opportunity to comment today. The OSTP Memorandum directs that the public access plan for each federal agency should include quote, a

strategy for improving the public's ability to locate an access digital data resulting from federally funded scientific research, end quote.

I am a water resources engineer and an environmental consultant, and I would like to offer two suggestions for improving discovery and use of data and publications, that pertain to water resources and environmental management to issues that are becoming ever more important. Both of these suggestions involve making advances in information technology in these areas.

The first area is enhancing search by geotagging a publications and data. As part of my work I look into factors that affect the availability and quality of water. These research efforts are often driven by basic questions about what is going on upstream in a watershed. For example, what studies have made projections about the quality and quantity of groundwater and surface water flowing towards points of water withdrawal. What has science learned about the aquatic ecology and riparian habitat associated with water bodies of interest?

What recent studies have examined water governance issues or projected land uses within a watershed or above the aquifer that feeds the water supply? The process of finding useful information relative to these

kinds of questions could be expedited by the consistent implementation of standards for geotagging publications and data.

Implementation of these standards would allow a user to supply to the search engine not only research terms, but a search polygon, such as a watershed boundary or water management jurisdiction or a wildlife preserve. Then retrieve from the search engine published information pertaining to a particular area of interest. That kind of functionality would not only save search time on individual projects, it would tend to further broader knowledge of a region and make natural resources management more effective there.

Geotagging, as you know, is hardly a new idea. Research groups are already making use of geotagging for data cataloging and search in using an ordinary web browser. Accelerating its application will enhance the use of research results for the benefit of the public sooner, rather than later.

The second notion concerning tagging is to tag publications with the functional linkages that they investigate. A couple of observations. Keywords have been used of course, for a long time to tag our scientific publications. Keywords alone, however, do not explicitly

capture the functional linkages among the variables that have been investigated.

Second observation is that scientific papers tend to be devoted to a narrow set of research questions. Even when multifaceted studies are undertaken, there is incentive to disaggregate findings and report them in separate papers. A system that can readily aggregate study results in meaningful ways would be helpful.

By tagging publications with a functional linkages with which they are concerned, useful relationships within a body of literature – even among different disciplines, can be more readily discovered by a system that can retrieve and assemble diagram those linkages.

For example, if one study only reports the effect of a chemical pollutant on human health and another only reports the effectiveness of a technology for reducing the presence of that pollutant in the environment, then a link between the health problem and a potentially useful pollution control technology may readily emerge from a search on the chemical, the health problem, or the technology.

Any notions about some new tagging system immediately raises questions about technology choices,

cost, vocabularies, incentives, for authors and publishers to use it. From what I have seen at this point, I am persuaded that unless populating a new tag field, becomes as necessary as providing an abstract and keywords, participation by authors and publishers will be minimal.

To conclude then, todays environmental challenges are often complex and multifaceted, and the proliferation of knowledge within disciplinary specialties and subspecialties makes the useful synthesis of that knowledge evermore challenging. Mechanisms for cataloging and searching that can assemble geographic and functional connections between individual sets of discoveries will help us understand, appreciate and manage our world better.

Thank you.

STAFF: Thank you very much. Next we are going to move to WebEx version. Unfortunately we do not have Christian on the line right now, so we are going to skip by him. Let me put up our first speaker and do a sound check here. Hi, Stevan, can you –

STEVAN HARNAD: Michael, can you hear me?

STAFF: It is your turn so when you are ready you can begin.

STEVAN HARNARD: Okay, all set. I have been listening to all the talks now and some of my five minutes

is spared by the fact that many people have said important things already. Heather Joseph mentioned how important it is that the deposit should be immediate and that it should be time-tagged with the date of acceptance of the article. Another speaker said that institutional repositories should be federated. Of course, that is the natural solution. Nobody deposits directly in Google. In a sense, depositing directly in PubMed Central is like depositing in Google, it doesn't make sense. Researchers should deposit in their own institutional repositories. That is what the funder mandate should say. Then the institutions are in the best position to verify that the deposits are being made in time, using the date mark of the acceptance letter.

The deposit doesn't have to be immediately open access, it just has to be immediately made. Because of publisher embargos some articles may have to be made closed access for a while. Sixty percent of journals already endorse immediate open access including most of the top journals, but for the 40 percent that embargo it, they should still be deposited immediately because their depositories have a button that allows represent request to be facilitated so the requester just has to press one button and the author just has to press another button in order to fulfill the eprint request.

So location and timing of the deposit is absolutely crucial for access purposes, as well as for verification of the mandates. That includes funder mandates and institutional university mandates. In fact if funders require depositing institutions, then the institutions will be encouraged to adopt mandates of their own for the rest of their research output that is not covered by funder.

Now I want to give a quick history of this. The UK, which had a very similar session this morning at 6:15 Eastern Daylight Time, in London in front of a Parliament Committee, the U.K. was the first one to propose that universities and funders should mandate open access. They were in the lead from 2004 until 2012, then in 2012 a disaster happened and the publishing lobby managed to persuade the government to mandate instead of mandating green open access self-archiving, which is what the Select Committee recommended in 2004, they recommended gold open access. They recommended paying for gold open access instead of depositing articles cost free for green.

The solution to this problem, which is a huge problem because it means the UK double pays for publications and none of the other national funders around the world are mandating gold open access. The solution is,

of course, exactly what is being discussed over here. Which is funders should mandate green open access – meaning deposit in institutional repositories. The Higher Education Funding Council of England has just proposed that. In order to eligible for the research evaluation, articles have to be deposited in the institutional repository, otherwise they are not visible and they have to be deposited immediately upon acceptance for publication.

Embargoes are of course, besides subscription access tolls, which prevent people from accessing the literature and that is what open access is all about, that access should not just be for subscribers, it should be for all potential users. Besides subscription access tolls, subscriptions are paying for publication. A second constraint is being placed by publishers that are embargoing open access. The way around that is to require immediate deposit, regardless of whether or not there is an embargo, you can put it in as closed open access. Let the reprint request button take care of research needs during embargo, and soon embargoes will die their natural and well deserved deaths.

The scenario after this is that once green open access makes subscriptions no longer sustainable because institutions can cancel subscriptions once they have

everything available as green, then publishers can downsize and their only remaining function will be peer review. Access provision will be done by repositories all over the world, the Federated Repositories, if you like. Archiving will be done by them. The only cost and therefore the only service, will be peer review and that can be paid by gold open access. It can be paid, instead of double paying, as it is being double paid now, it can be paid out of the institutional subscription cancellation savings, and only a small fraction of them. Right now if you pay for gold open access, even if it is pure gold, you are double paying, you have to pay all your subscriptions because you don't have access to the subscription journal content while they are just subscriptions. So you have to pay the subscriptions and on top of that you have to pay for gold. If you are paying for hybrid gold, which means the same publisher is charging authors if they want to make their articles open access, then you are not only double paying, but you are allowing double dipping.

STAFF: Thank you, Stevan. Sorry I had to cut you off there. We appreciate you making time to comment. We are going to get back into our list of speakers here. Unfortunately the next three folks who were going to call in, are not here or on the computer right now or on the

phone. So we are going to move to Amy, who is just starting up her video and unmuting herself. I appreciate that.

AMY NURNBERGER: Can you hear me?

STAFF: Yes, and we have your video as well. So whenever you are ready I will start your five minutes.

AMY NURNBERGER: Alright, hello. My name is Amy Nurnberger and I am the research data manager at Columbia University. Thanks very much for this opportunity to offer comment on increasing access to the results of federally funded scientific research. Columbia University is dedicated to advancing knowledge and learning at the highest level and to conveying the products of its effort to the world and we support the memorandum's objectives within this context.

We particularly appreciate the efforts of the agencies to consult with various parties that will be effected the resulting policies, and applaud the goal of developing policies consistent in their compliance requirements. Beyond consistency, effective policies for public access to publications should set clear objectives related to preservation of content. They should describe funding provisions for access and preservation for both the short and long term archiving of scientific literature.

They should require human and machine readable access to research outputs, as many others have mentioned. They should facilitate working partnerships between the existing repositories maintained by publishers, institutions, societies, and other third parties, that meet conditions that allow for indexing, public access, reuse, interoperability, preservation, and that can be certified as trust repositories.

They should maintain flexibility to accommodate new technologies by allowing freedom to choose the most appropriate platforms. They should maximize access to the content by setting standards and requirements for deposit of the content. Particularly, with regard to metadata, that should use controlled vocabularies, provide attribution for funding organizations and grant identification, describe resources in a way that enables relationships to be determined semantically and use controlled identifiers.

They should implement processes specifically designed to achieve the policy stated goals that facilitate easy compliance and reduce administrative overhead, rather than adopt systems created for other uses and other purposes.

Good policy that maximizes the benefit of public

access to scientific publications should be specific about the research and technological standards, while still allowing freedom of choice in the specific technological tools used to achieve these standards. We urge the federal agencies when developing their policies, to consider the power of consistency in encouraging adherence and minimizing the cost and complexity of compliance. We believe these goals are in keeping with those previously stated by this administration, and certainly are in keeping with the goals of principal investigators and university administration.

Thank you again, for this opportunity.

STAFF: Thank you, Amy. So next we are going to open it up to the audience for folks who decided after our registration closed or while they came today, that they were interested in speaking. Again, I would ask that you state your name when you go up, so we know who is speaking and have that for the public record.

So whenever you are ready, the microphone is yours.

DOUGLAS GAGE: Hello. My name is Douglas Gage, I am an independent technology consultant, based in Arlington. I retired in 2004 after a long federal Defense Department career – the last four years as a program

manager at DARPA. I am speaking here today as me, on behalf of myself, not for any employer or client, past, present, or future.

The first point I would like to make is just to stress that the focus of everything that we have been talking about today seems to be mostly on articles that are being published or about to be published, and how we are going to treat those. But I think it is really important that access to journals and proceedings and publications that are previously published, are very, very important, perhaps more important than the new publications. Because if I read a publication and I am interested, if it is a good publication, the first thing I am going to do is go to the references and try and read those. If I can't get to those, well, then that is a problem. Then if I really would like it, I go to the references and references and so on.

The second point I would like to talk about is to consider who is it that has an interest in the act of reading of a published technical paper and who should be or might be, willing to pay to facilitate that access if there is a payment required?

The first and obvious candidate is the reader, him or herself. The second would be the reader's

institution or company. The third is the author, like a gold open access mode. The fourth is the author's institution. The fifth would be the sponsor of the author's work at the time that he or she was writing the paper. This would be directly or indirectly placed into the project costs that were billed.

The other one that I did not mention that I sort of skipped over, you may have noticed, is the sponsor of the reader's work. This is actually of course, where the economic value in terms of the research process lies - that is the reader - is working on some project formally or informally, and presumably reading the article as aided in making that research go better.

Traditionally if you have a researcher who is an employee of a company working on some contracted sponsor effort, then the cost will be put onto the contract somehow, directly or indirectly, through the institution.

What about the new ways of doing business? What about challenges and prizes? DARPA's Grand Challenge, Urban Challenge, et cetera, Centennial Challenges for NASA. Standards efforts, I am familiar with jaws and the robotic standards. They seek the participation of a broad base of relevant players, but in order to play you have to be able to pay $500 to get the documents from SAE, which is a real

damper unless you are formally funded and sponsored.

So the third one of course, DOD is looking for non-traditional Defense contractors, typically small businesses that could not afford to or might even figure out how they might play in these kind of things.

So the idea then is to create some mechanism by which the sponsors of a non-traditional effort can pay for literature access for the participants in that effort. So it would be a system which would interface with the publishers of the literature, the sponsors of the efforts, and the readers who are the users. The publishers would make their materials available through the system, the sponsor would sign up, make arrangements with the system operator, the readers would then sign up under the aegis of a given sponsor, and so on. There, of course, would be business arrangements needed all the way around there.

One of the things I want to stress is that in some cases you need a very, very broad base of materials to be included and you need a very fine resolution of access. My hobby is I am interested in supporting people on Mars. This is a nice book. It is actually the Journal of Cosmology, 54 papers, they are all online, they are all free, but the references, you figure 50 papers, 20 references each, and they cover from caves all across the

world of research, physical sciences, biosciences, psychology, and so forth. I can't access them. I go over to GMU library, I can't access them there. I am looking for something that I can use, and other people can use, in a broad way, that sponsors can sponsor access. I think what the analogy is as being with the performing rights organizations that are used for music.

Thank you.

STAFF: Thank you so much. So there are other individuals who have not registered and are interested in providing comments at this point, we welcome you to the microphone.

DR. HAUSER: Is there anyone else? If not, I will make –I don't know if this violates the neutrality of the Academy or not, but I will make one small comment before I close this session and the next session will start at 3:45 p.m., and that is I think it is implicit in everything I have heard today, but I hope that whatever solutions are adopted are very forward looking because the changes that are actually underway and what people do with research publications or other research findings. I will in that spirit, I will offer one example, which is the National Academies Press. As of about a year and a half ago, we started giving away everything free in PDF. The

economic model that supports that presumes that there are still enough hard copy purchases to support giving away the free searchable PDFs.

There is sort of a demographic issue there, which has to do with the succession of cohorts. Although I still love hard bound books and buy them by the carload lot compulsively, the question is what will happen in future cohorts as people become increasingly accustomed to reading from screens and the like. I just think that is an interesting question to think about.

With that, again, I apologize if any prejudices show, I will close this session and invite you to return here at 3:45 for the final session of today.

(Break)

Agenda Item: Public Comment

Session 3 – Publishers (Group 1), Walk-in Registrants, if any

DR. HAUSER: I am still Bob Hauser, executive director of the Division of Behavioral and Social Sciences at the National Research Council. I said that not for self-aggrandizement because there may be some folks who are logged in by video and were not at our earlier sessions. Okay, that was self-serving. But in any event, this is our third session of public comment for the day. We will hear

from a first group of publishers and some walk-in registrants. We have only six presenters here, so if you can multiply six times five, as I can, that suggests that we will actually be – unless there is a surge of walk-in registrants – I suspect that we will finish before our allotted hour of 5:00 p.m. this afternoon.

So with that, I welcome our first speaker of this session who is Stephen Lowe from the U.S. Department of Agriculture. No. Gordon Nelson from the Council of Scientific Society Presidents. I take it all back.

GORDON NELSON: My name is Gordon Nelson. I am the President of the Council of Scientific Society Presidents. Advocates have opined that surely, research funded by tax payers should be freely available. Cooperating federal agencies are to be complemented with this meeting, which, for really the first time, brings together all stakeholders and interested parties.

We need to focus, however, on a couple of questions. What is the impact of open access? Are there unintended consequences? The Council of Scientific Society Presidents is the organization of those in the presidency of some 60 science, mathematics in science, and mathematics education societies. The constituent societies have a membership of 1.4 million. At our meeting two weeks ago,

societies identified open access as a prime concern.

On February 26th, the New York Times had an editorial -- we paid for the research so let's see it, urging that government financed research be made available at no charge within a year. That editorial was openly simplistic. A significant fraction of the scientific literature is published by not-for-profit societies. Publications often represent an important core activity of those societies. Their pricing is at a fraction of that of for-profit publishers. Societies give back net revenues to science via essential value added services.

To publish a journal is not free. It requires hardware, software, management of the peer-review process, editorial work, maintenance of the database over decades, and printing the final product. The real question is who pays, the authors, their institutions or the very grants in question, the users, libraries, companies, and individuals, or a third party, government, that is the tax payers, or donors?

The first issue is a concern that if the new policy is implemented without consideration for scientific societies, there will be serious damage to both science and science education. Scientific societies have been publishing journals for over 100 years. They, indeed, are

a core society activity.

Net revenues from publications fund a variety of STEM activities, such as scholarly meetings, paying to help students attend scientific meetings, career support and mentoring, science courses and seminars, development of educational resources, public outreach activities like chemistry day or science cafes to name only a very few. If open access is not done carefully, some scientific societies may not survive. With it, the loss of essential services supporting the scientific enterprise, as well as the likely loss of access to archived journals.

The second issue is if users do not pay, the who pays? The plan seems to be author publication fees on the order of $1,500 to $2,000 per article. Where are researchers to get this money? I am a chemist. If I have 10 graduate students, I would likely publish ten papers per year. Publication fees would total upwards of $20,000. Unless funding agencies increase grant size two to four percent to cover publication fees, I would need to reduce the number of publications and/or cut a student.

A recent letter to *Chemical and Engineering News* raises a third issue. The writer said I am concerned about the effect of the federal open access policy on U.S. global competitiveness. I simply do not understand how making all

federally funded research available to the global community for free makes the U.S. globally competitive. I am hoping someone will enlighten me. If the U.S. is the only country that mandates open access, doesn't that put the country at a global disadvantage?

When I started my career, page charges were the norm. We have worked long and hard to reduce or remove page charges. The purpose was to create broader, more robust platforms for publication. Journals are international. Publication fees will reduce U.S. papers perhaps by 10 percent. Offshore authors are likely to go elsewhere. How can society journals remain viable? A key will be the embargo period. An embargo period less than 18 months will likely result in not-for-profit journal collapse and with that will be the collapse of some scientific societies.

Scientific societies have a special place in maintaining a vigorous scientific enterprise. Societies reinvest revenues in the science and in the scientific workforce of the future. Open access clearly impacts the health of scientific societies. Open access impacts research grants, which foster innovation. Again, will federal agencies increase grants by two to four percent to cover publication costs?

New open access policies should not ignore issues of global competitiveness. I ask agencies to please act with care. Thank you.

STAFF: Thank you so much. Next up is Sarah Ohlhorst.

SARAH OHLHORST: Hello. Good afternoon. I am Sarah Ohlhorst, Director of Government Relations for the American Society for Nutrition or ASN. ASN appreciates the opportunity to provide comments regarding public access to peer-reviewed, scholarly publications resulting from federally funded research.

Founded in 1928, ASN is a not-for-profit scientific society with nearly 5,000 members from academia, clinical practice, government, and industry. ASN publishes the two leading peer-reviewed scientific journals in nutrition science and dietetics, *The American Journal for Clinical Nutrition* and *The Journal of Nutrition* and the review journal *Advances in Nutrition*.

ASN supports the principle of increased public access to scientific information that stimulates innovation and we support a clear, coordinated policy for federal agencies to increase such access. ASN has voluntarily taken significant steps to accomplish public access of our journals, such as offering free public access to articles

12 months after publication on our website since 2000 and including ASN's entire journal collection in online databases and repositories.

ASN supports a 12 month post-publication embargo period as a guideline for making research papers publicly available. A shorter embargo period in public access policies devalues journal subscriptions and, therefore, subscription revenue, which many publishers rely heavily on to support their publishing operations, including the cost of collecting, peer-reviewing, editing, composing, disseminating, and archiving manuscripts. All of which add significant value to peer-reviewed publications. A shorter embargo period can also more easily compromise the business models of small publishers, including many not-for-profit publishers, who publish journals on a bi-monthly or quarterly basis only.

ASN supports public/private collaboration to avoid unnecessary duplication of existing resources and mechanisms that provide public access. We urge the government to work with publishers to provide public access directly from the article of record in the journal by providing links back to the original content to enhance value for all stakeholders.

ASN opposes publication of multiple versions of

the same manuscript, as this will confuse and in some cases even corrupt the scientific record. ASN agrees that it is important for federal agencies to ensure that attribution to authors, journals, and original publishers is maintained. ASN supports policies that allow publishers to retain copyright while giving privileges to authors. ASN also supports clearly identifying copyright holders and open access databases and repositories. ASN does not require blanket requirements and grant contracts, which have the potential to deny authors and publishers the benefits of their copyright.

ASN supports decentralized approaches to archive publications and metadata. To avoid significant and unnecessary costs, any potential federal repository should link to the published research article on the publisher's site rather than post a duplicate copy. ASN believes it is a duplication of efforts for multiple federal agencies to establish separate repositories while publishers and others have systems currently in place to archive peer-reviewed scholarly publications.

Federal support for the archiving efforts already underway by public/private partnerships is critically important to maintain existing publisher archives. Federal support could also encourage innovation and accessibility

and interoperability of these archives while ensuring a long-term stewardship of the results of federally funded research.

ASN looks forward to a continued dialogue on this important issue. We urge federal agencies to fully involve publishers in the implementation of public access policies. Thank you.

STAFF: Thank you so much. Up next, we have Mark Sobel.

MARK SOBEL: Good afternoon. I am Mark Sobel, the past President and current Executive Officer of the American Society for Investigative Pathology or ASIP.

ASIP is a non-profit, educational 501c3 society that owns the *American Journal of Pathology*, which is published monthly with 6,000 pages of content annually. It has been published since 1925 and is the highest cited pathology journal in the world. We also co-own *The Journal of Molecular Diagnostics* or *JMD* with the Association for Molecular Pathology, which is also an educational non-profit society. *JMD* was founded in 1998 and is published bi-monthly with 750 pages of content annually.

As a small biomedical society, ASIP faces significant challenges to continue self-publishing two high-profile pathology journals through a 20 year period of

revolutionary change. As a consequence of declining subscription revenue and staggering demand for more specialized mobile access and enhanced online features, ASIP contracted with Elsevier in late 2010 to manage the journals' business operations.

ASIP supports the principal of increased public access to scientific information. We are a signatory to the DC principals. We offer free public access to articles 12 months after publication on our journal website. All of our subscribers have free and immediate access to all of our articles from the date of publication.

From 2007-2009, we experimented with a six month embargo period for *AJP* and experienced a steep decline in institutional subscriptions. Based on our experience, a six month post-publication embargo period devalues journal subscriptions, is not consistent with publications, such as *JMD*, that are published less frequently than monthly, and does not provide subscription revenue to support affordable page charges and maintenance of publishing operations, especially peer review, editing, and composition, investigations of scientific fraud, and archiving scientific articles.

There was no single appropriate embargo period. Individual publisher business models are not arbitrary, but

are carefully calibrated to meet the needs of the scientific end users.

It is important that federal agencies not ignore the role that publishers play in adding significant value to peer reviewed publications. We believe our society is the best guarantor and guardian of the scientific literature published in our journals.

We do not support the growth and proliferation of national repositories that are redundant to the content that we already provide on our website. Like our colleagues at ASN, ASIP supports public/private collaboration to avoid unnecessary duplication of existing resources. We strongly urge the federal agencies to work with publishers to provide public access directly from the article of record in the journal by providing links back to the content.

We oppose multiple versions of the same article, since that is the road to corruption of the scientific record. We also believe that our system of a mixed model of revenue is the best model because it gives both authors and libraries a cost-effective means of disseminating scientific information.

ASIP urges federal agencies to ensure that attribution to authors, journals, and original publishers

will be maintained. We believe that the government should allow publishers to retain copyright, since it is the publishers who must guarantee the integrity of the scientific record and to, often, initiate investigations of scientific fraud. Copyright holders should be clearly identified in open access databases and repositories. ASIP does not support blanket requirements and grant contracts that have the potential to deny authors and publishers the benefits of their copyrights.

In conclusion, very careful consideration needs to be given to archiving and public access policies, especially if these are to be tied to growth in the U.S. economy and improving output of the U.S. scientific enterprise. ASIP strongly supports the decentralization of archived publications and metadata to avoid unnecessary duplication of costs. Federal repositories should link to the published research article on the publisher's website, rather than post a duplicate copy in a federal repository.

ASIP has significant concerns about the long-term viability, sustainability, and protection from piracy of a single federal repository. We look forward to working with the federal agencies to further public/private partnerships in maintaining existing archives, which should be interoperable and should ensure the long-term stewardship

of the results of federally funded research. Thank you.

STAFF: Thank you so much. Next up, we have Kathleen Fitzpatrick.

KATHLEEN FITZPATRICK: Good afternoon. My name is Kathleen Fitzpatrick. I am the Director of Scholarly Communication of the Modern Language Association.

Since the Royal Society of London, learned and professional societies have been founded precisely in order to help facilitate communication amongst members and between their members and the broader public. That communication developed into the form of the scholarly journal, which accrued a number of formal publishing processes, including editing and peer review that marked it as an authoritative resource for knowledge in its field.

Such resources came to be valued not only by the members of society, but also by a broader range of scholars, researchers, and students. As a result, research libraries collected these journals and made them available to their patrons.

This system was stable for some time. Scholars joined societies in order to access those societies' resources. Societies were supported in their work not only by their members, but also by libraries, whose subscriptions extended the reach of those resources. Funds

generated through membership dues and subscriptions enabled societies not only to fulfill their mission of facilitating scholarly communication, but also to support members in developing professional practices and standards to advocate on behalf of the field within institutions and on the national and international scene and so on.

Things have changed in recent years, however, and the development of new communication technologies is only one of those changes. Scholars' professional lives have become increasingly precarious as employment conditions in colleges and universities have dramatically worsened. As a result, many scholars are unable to commit resources to membership in professional societies.

University and research libraries' budgets have been strained by often exorbitant subscriptions to commercially produced journals. As a result, those libraries are decreasingly able to help support the not-for-profit societies to which the scholars at their institutions belong.

Societies are faced with declining memberships, increasing publishing costs, and diminishing subscription revenue. As a result, many societies have turned to larger publishers as a means of sustaining their communication programs and supporting their other functions.

Into this already complex set of competing interest and needs, enter the internet, in particular, the World Wide Web. The Web was, like scholarly societies, invented for the express purpose of supporting communication amongst scholars. The difference, of course, is that the Web permits any individual scholar with server access and a little bit of technical ability to share his or her work directly with the world, seemingly reducing the need for the collectives historically provided by scholarly societies.

Moreover, the Web reduces the reproduction costs, if not the production costs, of scholarship to near zero, further diminishing everyone's willingness to pay for such work. Polarization sets in. The internet wants all information to be freely and openly available. Scholarly societies, needing membership and subscription revenue to survive, want to control access to the work that they produce.

These constituencies in scholarly communication have largely talked past one another in recent days. We, at the MLA, strongly believe that this need not be so. We all, scholars, libraries, and societies, share the goal of increasing the wealth of knowledge that we hold in common. If we focus on that collective goal, a viable path forward

can be forged.

There is still reason for some benefits of membership in a scholarly society to be exclusive to members if we rethink the role of the scholarly society in the digital age. The shifts that I have described require us to consider the possibility that the locus of a scholarly society's value in the process of knowledge creation may be moving from providing closed access to certain research products to, instead, facilitating the broadest possible distribution of the work done by its members.

This is a profound change not just for societies, but for their members. We may, in coming years, operate under a model in which, rather than joining in order to receive the society's journal, one, instead, joins a society in order to get one's work out to the world surrounded by and associated with the other work done by experts in the field.

The value of joining a scholarly society in the age of open, public, web-based communication then, may be in participation. At the MLA, we have developed a platform through which our members can collaborate with one another, can conduct group discussions, and can share their work freely with the world. We are working with our members to

develop a set of new, professional practices and standards for open, publicly accessibly communication, new modes of editing, and new modes of peer review.

We are committed to the idea that the role of the society in the years ahead will be to support those practices, to promote the work done by our members, and to create the broadest possible public understanding of the importance of such work for our collective future. For this reason, we are happy to support the National Endowment for the Humanities in its work on this project. Thank you.

STAFF: Thank you so much, Kathleen. Next up, we have John Downing. He is coming to us via the web. Just give me one second to pull him up.

JOHN DOWNING: I should be here.

STAFF: Great, John. Whenever you are ready, the microphone is yours.

JOHN DOWNING: Thank you so very much. I really appreciate being here. I am speaking for myself today, but I will sound remarkably like several previous speakers. I am strongly supportive of open access, but I am here to express my hope that open access publication policies will avoid unintended consequences for U.S. scientists and science societies.

In addition to my volunteer role as President of

the Association for the Sciences of Limnology and Oceanography -- we look after the water of the world, I am a member of the Executive Board of the Council of Scientific Society President, a professor at a large university, and a volunteer professor assisting a community college. This is kind of typical of science society presidents. These engines of unbiased, inexpensive science publications and science training are mostly run by volunteer scientists.

My society has been a leader in providing open access content. As we have heard this morning, science societies are the descendents of science academies, an engine that helped to ensure the reliability of scientific discourse. I hope that those crafting new policies on open access science publication consider the diverse services offered by science societies and create policies that do not erode their ability to contribute to the creation, to the maintenance, and to the enhancement of the STEM workforce.

There are two facts that I would like to accentuate. First, science societies operate primarily on revenues from publishing. Second, science societies turn back all publishing revenues to provide essential services supporting the science enterprise. Scientific societies

provide many essential services. Among these are objective science publications, of course, scholarly meetings, professional networking, web archiving of historical publications, early career support and mentoring, professional interaction, science discourse, enhanced diversity in STEM fields, career advancing honors and awards, outreach, and free public information, independent educational resources, and several other thing.

In addition, non-profit science societies need a gradual and consistent transition, mostly because we are volunteers. Scientific societies operate on very tight budgets and are staffed mostly by volunteers like me. Because of this, we adapt slowly.

In my field, most science was published by science societies 40 years ago, whereas, now, 80 percent of all science citations accrued at commercial publishers. Five publishers now cover more than 70 percent of them. I hope agencies will agree on a gradual and consistent transition that will not lead to loss of science societies and a decrease in the diversity of sources of scientific information.

Some would argue for a very short or even non-existent embargo period. Short embargo periods will mean that science society publications will be at a higher risk

of being cut from libraries' budgets in favor of the big bundles, thus reducing subscription revenue. Elimination of embargo completely would alter the flow of funds, meaning that the cost of publication would be borne by authors, not by libraries. Policy would then need to identify time stable funds to support dissemination of research results. Those funds would need to actually outlive the length of research grants.

Published research is greater than the sum of its grants, I think. Certainly, publications are made of materials and labor purchased with grants, but they are also built from scientists' innovations and publishers' investments and costs. We should be careful to avoid changes that would risk squelching innovation or publishers' ability to provide quality publications. I am also personally concerned, too, that author paid open access will price out poor scientists while forcing U.S. scientists to subsidize global innovation.

In conclusion, scientific societies have a really special place in maintaining a vigorous scientific enterprise by reinvesting publishing revenues in the scientific workforce of the future. Well-intended plans altering the publishing environment without considering science societies could compromise this engine of

scientific productivity. Avoiding this, I think, requires gradual transition, a stable and alternative publication funding stream, inclusive publication options, and valuation of scientists' intellectual investment.

I hope that policy discussions seek to recognize the special contributions of science societies, who publish not to enrich their enterprise, but to enrich the science enterprise as a whole. Thank you.

STAFF: Thank you, John. At this point, we are going to open up the mic for individuals who are interested in making a presentation. If there is anyone -- I see someone coming to the microphone. Great. If anyone else is interested, you can just prepare to go next. As I mentioned before, please just state your name so we have that on the record. Thank you so much.

JOSE MERINO: Thank you very much. Hello. I am Jose Merino. I am the Clinical Research Editor for the BMJ, here, in the United States. BMJ, formerly, the BMJ Group, appreciates the opportunity to comment on the memo. BMJ Group publishes around 40 biomedical journals, including the flagship, the BMJ.

Some of the journals, like BMJ Open are purely open access. Others allow authors to opt for open access. The BMJ, which is the flagship, has a hybrid model where

there is a pay for educational and journalistic pieces, but fully open access to research.

We agree that there are benefits from making the direct results of federally funded scientific research accessible to everybody and that research published in peer-reviewed journals should be publicly accessible to maximize its impact and accountability. We believe that the gold model of open access via publication in open access peer-reviewed journals is the ideal mechanism to achieve these goals. The green model of author self-archiving is not viable and may not fulfill the proposed regulation, as was demonstrated in the recent study funded by the European Union, the Publishing and Ecology of European Research Project.

Providing gold open access via journals is a well established way to widely disseminate publicly funded research that is supported by a range of viable business models, provides professional services for authors, reviewers, readers, librarians, and funders, and provides effective peer review mechanisms.

Research published using this mode of open access can be available upon publication rather than after an embargo period. In particular, in the biomedical sciences, we think that an embargo of 12 months may unnecessarily

delay the development and implementation of measures that would lead to better patient outcomes.

Open access is more than free access because it allows, via licensing and proper attribution of original sources, reuse of the text in metadata, thereby maximizing the usefulness of the content to all readers and other researchers. Over many years, the BMJ has piloted, evaluated, and developed a range of successful open access publishing models using creative common licenses. All open access articles in the BMJ journals are flagged as open access in the metadata, in the table of contents, in the article content box, and in the PDF.

BMJ open access articles may be reused by both authors and third parties in accordance with the terms and conditions of the Creative Commons Attribution Noncommercial 3.0 Unported license. Under this Creative Commons license, users are free to share and adapt the contribution for noncommercial purposes under the condition of full legal support. The BMJ Group also, for the Creative Commons CCBY license for authors who funders, such as the Research Council in the United Kingdom, who require complete, unrestricted reuse.

The BMJ and BMJ Open fully support the initiative to share data because access to data is essential to ensure

transparency in research. We believe that this is the most important element of the open access movement as it has the greatest potential to improve the evidence base for medicine and health care. Both the BMJ and the BMJ Open require all authors of original research papers to state in their manuscripts whether, how, and where they will make the data available and what steps they have taken to protect patient confidentiality.

Moreover, starting in January 2013, any randomized control trial of drugs and medical devices are considered for publication in the BMJ only after the author has committed to making the relevant and anonymized patient level data available on reasonable request. Thank you very much for the opportunity to share my thoughts.

STAFF: Thank you so much. If there is anyone else who is interested in speaking, now would be the time to come up to the mic. If not, I see we have Bob, who will lead us into the close of the day.

DR. HAUSER: I would like to start by thanking all of you who have joined us today in learning from these several interesting and sometimes interestingly different points of view. I invite you to rejoin us tomorrow. Now, here is the important thing that I can say besides good bye.

Keep your nametag if you are coming back tomorrow because my handlers have informed me that if you keep your nametag, you will not have to sign in again when you come through the front door of the building. You can just flash that and it will be your ticket to enter without further ado.

I invite you to join us tomorrow where we will have one more listening session followed by the wrap up by Brain. I know that he has already shared with me the fabulous graphic he has been working on. I expect you will all want to see it tomorrow. Thank you all again and have a good evening.

(Whereupon, the meeting adjourned.)

National Academy of Sciences

National Research Council

Public Comment Meeting

Concerning

Public Access to Federally Supported R&D Publications

Public Commenters

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Session 4 – Publishers (Group 2)

PETER BERKERY: Good morning. The Association of American University Presses appreciates the opportunity to comment on the OSTP's February 22nd memorandum on increasing access to the results of federally funded research.

AAUP's 131 members represent more than 90 percent of the nation's university presses. Along with a variety of aligned mission based publishers, such as museums, scholarly associations, and research institutes. Collectively, we publish more than 10,000 books in 800 journals each year. The hallmark of AAUP membership is the commitment to the broad dissemination of peer reviewed scholarship. Consequently, AAUP has a longstanding public policy and support of sustainable open access.

The member presses of AAUP embrace their obligation to confront the many challenges; economic, legal, and technological, that to the existing system of scholarly communication that open access presents. And to participate with all willing partners both inside and outside the university, to strengthen and expand scholarly communications. Many of these presses, often in collaboration with their research libraries, are already experimenting with new approaches, including various forms

of open access that seek to balance the mission of scholarly communication with its costs.

Prominent examples of our members' success in reinventing sustainable scholarly communication include Project Muse and the Muse UPCC E-Book Consortium, the University of Chicago on-line edition of the Founder's Constitution, the New Georgia Encyclopedia, the Brain Sciences on-line community at MIT COGNET, Oxford Scholarship on-line and Oxford's groundbreaking experiments with open access journals, Virginia's Rotunda, Michigan's New Press and library collaboration digital books, North Carolina's publishing of the Long Civil Rights Movement, and the high impact peer reviewed literature and theoretical and applied mathematics and statistics at Project Euclid.

Despite these successes, or indeed perhaps as a result of them, the development of sustainable open access models remains a work in progress, sometimes with profound differences across the various segments of scholarly publishing. By way of example, STEM scholarship tends to develop rapidly, and the emerging of sustainable open access publishing reflect this.

Humanities and social scientists scholarship by contrast, is created and consumed in fundamentally different ways. And sustainable open access publishing

models in HSS, it remains very much a work in progress.

Similarly, the majority of open access publishing models to date have evolved in the context of journal articles. The impact of open access principles on the publishing of monographic length content, remains more of an unknown. Consequently, while many mission based publishers have acquired the accumulated data and experience to project the embargo period required under certain open access models to recover the cost associated with the publication of say a STEM journal article, similar knowledge with respect to a HSS monograph would be scarce.

We therefore applaud the OSTP Memorandum's call for flexibility in the development of agency guidelines. A one-sized fits all approach to open access would pose existential risk to sustainable scholarly publishing. Because of their stewardship responsibilities, mission based publishers are uniquely attuned to the costs to be managed while exploring options for expanding open access. But the unavoidable truth is that under any publishing model scholarly communication is an expensive proposition. It requires, in addition to the scholars own work, knowledgeable editorial selection and careful vetting through peer review and/or refereeing, as well as a high level of quality in copy editing, design, production, marketing and distribution, in order to achieve the

excellence for which American universities have come to be praised.

It would be facile to assume that these costs disappear with the shift from print to electronic publication. Many costs remain, and others, often the relatively least expensive are simply replaced by more expensive emerging technologies. Universities have made substantial investments in their presses, and the staffs who run them are excellent at what they do.

The system of communication that these presses support plays a vital role in the spread of knowledge worldwide. We therefore note here with gratitude, the Memorandum's acknowledgement of the valuable services that publishers provide.

As the nature of scholarship varies by discipline and extent, so too must the application of open access principles. AAUP therefore urges the development of guidelines that afford mission based publishers the flexibility they need to evolve open access models that will facilitate their commitment to sustainable dissemination of knowledge.

We offer our full support, including access to our member's accumulated knowledge and experience in publishing open access scholarship, to the agencies responsible for developing open access guidelines.

Thank you for your time and consideration.

STAFF: Thank you. So next up we have Simon Ross. He was intending to call, although I don't have him on the phone so we are going to skip forward. If Alicia Wise is here, the microphone is yours whenever you are ready.

ALICIA WISE: Good morning everybody. My name is Alicia Wise and I am from Elsevier. I would like to begin today by returning to the very first talk we heard yesterday morning, where we heard about scholarly communication over time, with reference to Galileo.

The Elsevier family published the works of Galileo during his lifetime, and took considerable financial and personal risks to do so while his works were banned by the Inquisition and while he was under house arrest.

Publisher's defense of freedom of expression of authors continues to be one of the activities and services that we provide today, though in less dramatic circumstances in most cases. Publishers also support authors by connecting them to their audiences, and we do this increasingly innovative ways that make the best use of modern technologies. To support text-mining, for example, and integration of published articles with the underpinning datasets.

Elsevier strongly supports the principle of public access to publically funded information, and indeed, universal access to all research information. We believe open access has an important role to play in realizing that vision, and other approaches do to. Any model that preserves the quality and integrity of the scientific record and that is affordable and sustainable for all stakeholders and participants, is a good thing and we are happy to support those.

I wanted to talk just a moment about affordability, and particularly from the perspective of libraries. Over the last several decades there has been an annual increase in global research and development investment of around four percent per annum (increase of four percent per annum), which has driven four decades at increase of about that same size in the number of researchers and the number of articles published. Libraries have not tracked that growing investment in research and development. Together we need to address the resulting affordability problem and challenge that has become increasingly acute.

Open access can help to alleviate some of this challenge for libraries. In particular, it would be helpful perhaps, to spend a little bit of time thinking about the gold open access model, where the cost of

scholarly dissemination and communication shift essentially, from the library shoulders to the shoulders of funders. This diversification of business models that underpin scholarly communication can help to make the entire system more affordable and sustainable for all participants.

Green open access also has a powerful role to play, but we need to be mindful that it is based on the subscription model. That costs of the entire system continue to be borne by libraries, and that is a heavy burden that they are struggling to carry and have done for considerable time.

It is also important that time be allowed for that subscription model to operate if the cost of maintaining the quality and integrity of the research system are to be recovered. And embargo periods of at least 12 months seem important in most disciplinary's for most journals to achieve this.

I would like to conclude by really – I am kind of hopeful, look forward, publishers including Elsevier, look forward to working with agencies, libraries and universities, closely in collaboration and partnership. I think together we can resolve the challenges of the current system, preserve what is good and strong and right in that system, but also find creative and innovative ways to

change, to adapt, to embrace the opportunities of new technology and support researchers to advance health and knowledge.

Thank you very much.

STAFF: Thank you so much. Next up we have Damon Dozier. The microphone is yours whenever you are ready.

DAMON DOZIER: Good morning. My name is Damon Dozier and I am the director of Public Affairs for the American Anthropological Association. First, and foremost, the American Anthropological Association would like to thank the sponsoring organizations for holding this planning meeting to receive public comment regarding the OSTP recent policy statements on so called, open access publishing of federally funding research studies.

The AAA believes that the federal government has the right to require that research sponsored by federal funding be made available to American tax payers, and also recognizes the value of disseminating information as widely as possible. In fact, their statement for the association speaks to the importance of spreading anthropological knowledge to diverse audiences.

We are concerned however that some proposals to provide such access to tax payers, such as those being considered on Captiol Hill, do not recognize several important facts about scholarly publishing. Namely, that

publishers use different models with many moving parts, publishers cannot simply change publishing models and programs overnight without deleterious harm being made to the quality and integrity of content and that drastic changes may affect academic freedom in peer review of funding proposals in confidentiality of research subjects. Two issues of particular concern to the social science publishing community.

The AAA applauds the OSTP collaboration based approach to increasing access by working with the federal research funding agencies and by encouraging these agencies to embrace the challenges and public interest unique to each field.

The American Anthropological Association believes that when it comes to increasing access, it is highly appropriate to take into account the knowledge cycle, researchers who are not funded by the federal government, and the need to protect sensitive cultural data. Our members look forward to providing meaningful input as this process continues to evolve.

We testify today to urge this group to consider the unique situation of society in association journals published I the humanities and social sciences. While there has been a wealth of intension and focus on the business and financial aspects of peer reviewed scientific

technical journals, there has been hardly any discussion or information made available about social science publishing.

First, after 12 months, much of the content in many STM fields can be old news. An embargoed period of 12 months often has little effect on the financial models upon which in some fields, publishing is based.

In anthropology however, where over 90 of downloads occur after 12 months from the date of publication, the sided half-life of our quarterly journals is over 10 years, a 12 month embargo period does nothing to help our subscriptions.

Research on the behavior of acquisition librarians demonstrates clearly that the pattern of user demand for journal content is such that if librarians have only to wait 12 months to access that content free, such journal subscriptions will be readily dropped.

Researcher Simon Enger, found that only when the embargo is extended to 24 months in this model, does the final published article obtain a greater than 50 percent share of preference. This was a study of 424 librarians. Only 10 percent of these participants reported a social science focus, and four percent reported a humanities focus. So social science and humanity disciplines are under reported in this study.

Finally, scholarly journal publishing in

anthropology differs greatly than that in other fields. In a report funded by the Mellon Foundation that examined the financing of scholarly journal publishing among social science and humanity societies, researcher Mary Waltham, found that publishing costs in social science journals average is $526 per page. More than double the average of $226 per page cost to publish in other types of journals.

Because the evidentiary base of ethnography, linguistic anthropology, and archeology, as reported in text, not graphs and tables, as it comprises observations in transcripts of human behavior and artifacts, our journals require much longer articles than those published by some of our counterparts.

One final note, in anthropology and the humanities, book leaf publication is still a meaningful publication unit. Journals play a critical role in the success of these works by reviewing books in productions. In 2010, AAA journals published 411 book reviews.

If the AAA journal publishing program cannot be sustained, it may be that university presses and other scholarly publishers of book leaf works could also be irreparably damaged.

We thank you for these opportunities to submit these comment and we look forward to working with you in the future. Thank you.

STAFF: Thank you so much. Next up we have Felice Levine. The microphone is yours whenever you are ready.

FELICE LEVINE: Good morning everyone. I am Felice Levine, executive director of the American Educational Research Association, the National Scientific Association, of 25,000 members dedicated to advancing knowledge about education, encouraging scholarly inquiry about education, and promoting the use of education to serve the public good.

AERA supports the principle of providing public access to research articles, whether federally funded or not. One of our six peer review journals has been open access to readers through our website since 2000. We also allow authors to put toll free hyperlinks on their own website or in their institutions archive, that provides immediate and free access to the version of record upon publication.

In addition, in partnership with our publisher SAGE, we provide authors the option of paying a modest article processing charge in order to provide immediate and ungated access through the main journal website.

In April, just a few days ago, AERA council's approved the publication of AERA Open, a new peer reviewed open access journal. AERA Open will be freely accessible

to uses in authors, with accepted articles and will pay very, very modest APCs.

As many of the speakers have already noted, publishing is fundamental to the role of scientific societies. Scientific societies serve as disseminators of quality, peer reviewed research. They contribute to and advance cumulative, innovative knowledge, through a vetting process based on high standards of peer review.

They also serve as knowledge catalyst, reinvesting our resources generated through scholarly publication into efforts to further advance their fields. Efforts to provide open access to federally funded research must be implemented in a way that preserves this vital role, while simultaneously embracing the principle of open access. That is why AERA is proceeding deliberatively, but experimentally.

In November 2012, AERA held a conference e on open access publishing in the social sciences with diverse stakeholders. There was wide support for the principle of open access and for working collaboratively, including with government agencies, to develop the best models for reaching this goal.

We offer the following recommendations in this spirit. First, we continue to encourage the federal government to adopt an approach that takes advantage of

existing mechanisms for public access to federally funded research, such as toll free links. Toll free links provide access to the article of record and can be utilized immediately without direct threat to the sustainability of the enterprise. Such links also help to ensure proper use and citation counts which would be seriously compromised if articles or various versions of articles, were maintained separately.

Secondly, for totally ungated access, we encourage federal agencies to establish a post-publication embargo period of at least 12 months, unless federal resources expand to cover APCs. For journals where the majority of published research is federally funded, any shorter embargo period could erode subscription revenue for scientific societies and impede their ability to support their fields.

Third, the federal government needs to address APCs, which have the potential to disadvantage researchers at institutions where resources are minimal to cover such costs. AERA encourages the federal government to provide funds equitably for APCs and all federal grants. This is especially important in the social and behavior sciences where the size of research grants is far lower on average than in other science and engineering fields.

Lastly, we urge the federal government to test a

decentralized approach to public access, rather than establish a mega archive or archives. A decentralized approach at the outset, might be more challenging for locating results or treating publications themselves as a digital database. In the long-run however, it is wise to invest in the development of innovative technological solutions that permit distributed linkages and searchers. We recommend a 18 to 24 month period to develop such a technological tool. Such an approach can have major payoffs for the end user while minimizing cost to the government and minimizing unintended consequences for scientific societies.

In conclusion, AERA supports making federally funded research widely accessible. We urge continued openness and flexibility in agency implementation plans. We suggest a formal mechanism or committee be established to that end.

STAFF: Thank you very much. Next up we have Julie McClure. The microphone is yours whenever you are ready.

JULIE MCCLURE: Good morning. My name is Julie McClure and I work in the science policy office for the American Society of Agronomy, the Crop Science Society of America and the Soil Science Society of America.

First I would like to thank the sponsors for the

opportunity to participate in this forum and provide comment on this critical issue.

The Agronomy, Crop, and Soil Science Societies are the premier international scientific societies focused on food, agriculture and natural resources research. The societies meet member needs through publications, recognition and awards, placement services, certification programs, meetings and student activities.

Our members obtain research funding from an array of federal agencies, including USDA, NSF, DOE, USGS, NASA and EPA, as well as research support from corporate partners.

In 2012 the Agronomy, Crop and Soil Science Societies launched a digital library that now holds all of our publications, including nine journals, 320 books, extension in teaching resources such as guides and digital media, newsletters and other general content. The content is searchable via leading edge software that provides users with guided navigation, journal, article, and author level matrices and links to external sources. Authors also have the option of paying an additional $1,000 fee to make the article fee to make the article open access at the time of publications.

We also allow authors to post a PDF version of their accepted papers after peer review, on their own

personal websites and/or their employer's sites, provided the DOE link appears in the PDF. We have also just hired a new books editor in an effort to grow this content of the digital library.

Journal publications are the single most important revenue stream for the Agronomy, Crop, and Soil Sciences Societies. Gross revenue for 2012 were as follows; 60 percent from publications, 30 percent from meetings, and 10 percent for member dues. While inn principle, we favor the full and open sharing of publications for research and education purposes, clearly policies that impact price and availability of our publications, could have serious budget consequences.

We must carefully consider the timeline for policy implementation. A 12 month embargo period may be acceptable to most of our members from an author perspective, however going forward with this policy could mean that our societies like others, would need time to transition to a different budget model. The budget implications are not well understood since the details of the new policy are not yet fully available.

One key question that will determine the broader impacts of the new open access policy is this. What is really meant by the direct results of federal funded scientific research? The following points and questions

exemplify the potential effects of this key definition on professional societies and the land grant universities.

On books and monographs, these are peer reviewed and based on federally funded research. Will they fall under this policy? Embargoes for one year, then freely available, changes the value proposition. We would likely reduce our book publishing effort and value.

On extension publications, many of our society members at land grant universities have extension education appointments that complement their applied research efforts. Most extension publications are peer reviewed and based on federally funded research. Will these fall under the new policy?

An increasing number are being sold and the income being used to supplant reduced state and federal support for extension programming. Making these freely available after one year will alter the cost recovery budget model being used to support these programs. Will other media for teaching or extension education that were supported by federal monies, including slide sets, DVDs and CDs, and cell phone apps, fall under this new policy. Making these freely available, even after embargo period, will dramatic alter the cost recovery budget model currently being used for these media.

Finally, we need to consider what type of

document will need to be made available. PDF or XTML tagged articles or some other format. XTML tagged articles are searchable and have enhanced functionality in the digital library we use but are at a significant expense to the Agronomy, Crop, and Soil Science Societies.

While the public deserves the enhanced functionality, the core question remains, who will pay for it?

Thank you for this opportunity and we look forward to engaging you more in the future.

STAFF: Thank you. Next up is Adam Fagen.

ADAM FAGEN: Good morning. My name is Adam Fagen and I am the executive director of Genetics Society of America, a non-profit scientific society with nearly 5,000 members around the world who work to advance knowledge in the basic mechanisms of inheritance from the molecular to the population level.

GSA publishes two scholarly journals, Genetics, which has published original research on a range of topics bearing on heredity, since 1916, and G3, Genes Genomes Genetics, an open access journal established in 2011, to provide a forum for the publication of high quality foundational research, with a particular focus on studies that generate useful, genetic and genomic information, including novel datasets of broad interests to the research

community.

GSA has pursued policies that balance access to our publications, service to our members and the public, and the economic viability of our business model.

GSA supports the goals of increasing access to federally funded scholarly research, archival preservation, search and discovery, article and metadata identifiers, and interoperability between agency and private sector platforms. We feel that GSA and other publishers, are in the best position to carry out these objectives all at low cost. Indeed, most publishers have already developed a robust infrastructure to meet these and other objectives.

GSA is committed to providing complete and fast access to its publications while maintaining rigorous peer review and peer editing and the high standards that define our journal. Manuscripts accepted in Genetics are published online early, and are free to read within two weeks of acceptance. After final online publication, each issue is embargoed for 12 months. This embargo period allows Genetics to offer a fair price and to retain its subscription base, which is critical to the current and future success of the journals and of the society.

Genetics authors also have the opportunity to make their articles available without embargo by selecting an open access option. G3, GSA's fully open access

journal, provides free access to all its articles immediately upon publication each month.

We believe that it is critical that there be a single host for the final version of record for the journal articles and that this repository be the publisher. We already provide easy, continuous access to primary research articles in fulfilling our own mission. To promote economic efficiency and avoid duplication of efforts by the government, readers should be directed to the version of record on the publisher's website. We expect federal agencies not to expend the considerable cost and resources to duplicate existing archives held by individual journals and publishers.

GSA is a supporting publisher of Chorus and its distributed approach to public access, where publishers would host the open access content on their websites in the format most appropriate for the field of study. Directing readers to publisher's websites enables interested parties to benefit from the innovations and access to information we already make available.

For example, Genetics and G3's data policies require that all data be fully available to other researchers which are accessed from our journal websites. We believe that the interest of science are best served by allowing other scientists to access data, not only for

study replication, but its building blocks of science. However, it should be noted that the long term hosting of such data is not without cost.

GSA and other publishers, are committed to ensuring that articles remain available in perpetuity. In fact a growing collection of private and public/private resources, have proven effective for ensuring a permanent archive that can be easily accessed. We have been publishing and providing access to scholarly articles for nearly 100 years and continue to do so as we best serve the needs of our community and the public.

We believe that publishers that are part of the community, especially scientific societies, are in the best position to serve the needs of scholars in the field. Since research areas often spend the interest of several federal agencies, we are concerned that dissimilar requirements of different agencies will cause confusion among the research community and lead to considerable inefficiency as authors attempt to comply with the different requirements depending upon their funding source.

Finally, that while we agree that embargo periods may differ by discipline, we are concerned that stakeholder petitions to change embargoes, might not allow sufficient engagement of publishers. Potential changes to embargoes are likely to erode peer review and peer editing, and

negatively impact existing business models, and therefore the viability of publishers in all sectors of scholarly publishing, and therefore must be discussed in depth, with all of the important stakeholders.

GSA would again like to emphasize that we share an interest in providing broad access to scholarly articles, in a practical, cost effective way, forward, that involves participation by all stakeholders. These activities should be done with as minimal duplication of effort and resources as possible. We believe that that is by directing readers to content housed on publisher's websites, which in most cases already offer the needed access, and can continue to do so at no or minimal additional cost.

Thank you very much for your consideration of our comments.

STAFF: Thank you. Next up we have John Ochs. Whenever you are ready, the microphone is yours.

JOHN OCHS: Thank you. Good morning. On behalf of the publications divisions of the American Chemical Society, we appreciate the opportunity to provide input into the development of public access policies regarding publications.

The ACS is the world's largest scientific society, with over 163,000 members. The publication's

division is the publisher of over 40 scholarly journals that are among the most highly regarded in their fields. We appreciate that the February 22nd OSTP memo recognized in its policy principles, that publishers provide valuable services essential for ensuring the high quality of many scholarly publications and that it is critical that these services continue to be made available.

We share the interest of the government in maximizing the dissemination, discovery, and use of knowledge. And believe that the best way to achieve this goal is through the use of public access models that are sustainable in the long run, and through the collaborative development of flexible federal public access policies that both recognize the value provided in the publishing process, and take into account the differing citation in use practices of different research communities.

ACS, along with other publishers, recently partnered with federal agencies to develop a solution at no cost to the federal government, which promises to resolve a longstanding agency problem in identifying articles that report on research that they have funded. We have also joined with others to propose another equally cost effective public/private partnership to the OSTP Publications Interagency Working Group that would enable agencies to meet the key goals of that memo.

However, we share the concern of other societies and publishers that have pushed for free access without regard to consequences, may well jeopardize the availability and diversity outlets for scholarly communication and we urge government to carefully consider the impact of any policy on the ability of journals to sustain funding.

Policies should continue to allow grant funds to be used for publication costs. And insure that researchers know that this is an allowable use of funds, where it may be the best route to promote public access. Policies that focus on delayed access to manuscripts just accepted for publication, need to take account of the fact, as was mentioned by an earlier speaker, that this system is essentially funded by subscriptions and other similar revenues, and should ensure that the length of any delay is sufficient for that funding to be recovered.

In summary, we think that through a public/private partnership that respects the need for sustainability in scholarly communication, federal agencies and publishers can together, best address the goals and requirements of the OSTP memo.

Thank you.

STAFF: Thank you. Next up we have Philip DiVietro.

PHILIP DIVIETRO: Good morning. My name is Philip Divietro and I am the managing director of publishing for ASME, the American Society of Mechanical Engineers.

With more than 130,000 members worldwide, ASME is largest mechanical engineering professional organization in the world. Since its founding in 1880, ASME's central mission has been to advance public safety and the quality of life throughout the world.

ASME has balanced this mission with reasonable economic models in order to become an essential resource for mechanical engineers and other technical professionals throughout the world, for solutions that benefit mankind.

ASME's reputation as a neutral convener, has been earned over these many decades, by its deliberate embrace of all stakeholders in the consensus process and in facilitating a robust peer review process for technical content that is built on integrity and honesty. Throughout its long history, ASME has deliberately maintained affordable publications, conferences, standards, workshops, and seminars.

ASME endorses the principle of providing public access to and expanding the dissemination of federally funded research in ways that advance public safety, welfare, and improve the quality of life throughout the

world.

ASME supports the free distribution of research reports and raw, data, generated from government funded research, which is markedly different from the evaluated journal papers in which the private sector invests significant resources to peer review, produce, and disseminate, worldwide. Peer reviewed papers are not the direct result of the expenditure of tax payer funds. Conversely, they result from significant publisher investment, in vetting, and publishing peer reviewed material that is considered the gold standard of scientific communication and content.

Journal papers are indeed distinct works in which publishers invest heavily in all phases of development, from accepted unedited manuscripts to professionally published final content. As such, publishers should determine the business models by which their publications operate. This should include the timeframe, if any, within which a final peer reviewed manuscript or final published papers is made publically available.

It is the ability to recoup this investment that enables innovation, allows infrastructure to be developed, including archives and metadata, and provides incentives to try new approaches, which ensures the archival permanence of such valuable material. Long term stewardship of content

carries with it significant costs that are already being borne by publishers. Copyright is an essential ingredient in promoting creativity, innovation and the continued integrity and reliability of the scholarly record, and must be protected from unauthorized dissemination and piracy.

Peer reviewed papers should not be made public within a duration of the article's copyright, without the copyright holders permission. It is critical that mandates not be established that would undermine intellectual property rights without full voluntary rights holder authorization, intellectual property rights protection and compensation.

Embargo periods should also be determined on a case by case basis. Collaborative basis rather than through a federal prescriptive process. There should be a careful evaluation of the value of providing open access to a final research report, after appropriate embargo periods, rather than asserting a type of imminent domain over the peer reviewed journal article. This solution would allow standardization of information reported, rapid and broad dissemination of the government funded materials, even before publication of a peer reviewed article and the preservation of intellectual property.

ASME supports the policy on access to research outputs released on Febraury 22, 2013 by the White House

Office of Science and Technology Policy, which outlines a reasonable balance resolution of issues around public access to research funded by federal agencies. We also appreciate the administration's recognition of the valuable services that publishers provide, including the coordination of peer review, that are essential for ensuring the high quality and integrity of many scholarly publications, as well as how critical it is that these services continue to be made available.

ASME also appreciates the support of the National Academy of Sciences in convening this forum to carefully review approaches to public access and comprehensively consider the economic implications of various public access models, including the impact on the federal budget. The peer review process and the health of America's innovation ecosystem.

We believe that the best approach to archiving greater public access for federally funded research is through public/private collaboration –

STAFF: Sorry, Philip, we had to cut you off at the end of the five, plus 30. Unfortunately our format only allows five minute per speaker but we greatly appreciate your comments.

Up next we have John Baillieul. The microphone is yours whenever you are ready.

JOHN BAILLIEUL: Thanks very much. Good morning, I am John Baillieul, professor of engineering at Boston University and director of BU Laboratory for Electronic Systems. When I am not working with IEEE colleagues, my day job is teaching in research. My research has frequently led to publication, over a 100 of which have sided support from U.S. funding agency grants. I address you today on behalf of the IEEE, where I am chair or Products and Services Committees, one of two committees, that oversees our publication program.

First, I would like to say along with other speakers before me, that the IEEE appreciates the chance to provide our recommendations to the National Research Council on how to meet the recent directive of the OSTP. It is important that we craft a coordinated solution to public access, rather than disparate approaches. The fact that multiple agencies have asked the National Research Council to coordinate this meeting, to collect public comment is a big step in the right direction.

Those of you familiar with the IEEE know that we have a very visible presence in the world of technology research. We have more than 425,000 members in over 160 countries. This makes the IEEE the world's largest not-for-profit professional association. Our mission is simple, advance technology and innovation and excellence

for the benefit of humanity.

A bit part of this mission is our portfolio of peer reviewed journals. The IEEE is committed to providing authors with a choice of where to publish their work, to giving published articles wide visibility in the scholarly community, and to ensuring the integrity of the work it publishes. Our focus however, is not only on authors, the IEEE supports the growing consensus that the public should have convenient and more economical access to the results of tax payer funded research.

The effort to achieve this goal however, must make sense and be sustainable for authors, readers and publishers. The IEEE therefore recommends a minimum embargo period of 24 months. The IEEE believes that an embargo period of 12 months is not workable in the areas of engineering and technology. We have data that shows that 85 percent of the users of our explored digital library platform retrieve articles older than 12 months. This is largely because the research we publish in engineering and related disciplines, has a very long shelf-life and it is valuable for many years.

We fear that imposing a 12 month embargo policy or shorter, would encourage users to forego immediate access and cancel their subscriptions. They can simply wait out the 12 month embargo period. All that said, we

can certainly see the value in making research available for free in a timely manner. This is why we already offer open access options for all of our journals.

Any authors who wish to make their research immediately available for free have the option to pay article processing charges. Of course, the IEEE offers traditional journal options where there is no charge to the author and the content is accessed via membership or by subscribing to IEEE explore database.

It is important to remember that scholarly publishing is not a one size fits all approach. With this in mind, any solution resulting from this body must preserve academic freedom and be business model neutral. The policy should allow authors to choose the most appropriate venue to publish their works, whether it is a journal funded through traditional reader subscriptions, author pays open access, funding sponsorship for publication, or some combination of these.

Any embargo period of less than 24 months will damage the IEEE's ability to fulfill its mission to authors and scholars worldwide. On behalf of the IEEE, I strongly urge that policy call for an embargo period will be a minimum of 24 months.

We at the IEEE applaud the OSTP's call for public/private partnerships to find a reasonable path to

making research more widely available. Such partnerships can leverage infrastructure and experience of publishers and minimize the expense to tax payers. Towards this end, the IEEE is a supporter of FundRef, a project that helps federal agencies identify journal articles to the research to the research that they fund, all at no cost to the government.

The IEEE stands ready to work with its colleagues and scholarly publishing to create similar partnerships that could provide agencies with low cost tools to address the OSTP requirements.

Thanks very much for the opportunity to address the body.

STAFF: Thank you so much. Up next we have Elizabeth Nolan. The microphone is yours whenever you are ready.

ELIZABETH NOLAN: Good morning. My name is Elizabeth Nolan and I am chief publishing officer at The Optical Society. I want to thank you for the chance to comment on OSTP's Public Access to Research Memorandum.

As a non-profit scientific publisher of 16 journals in the field of optics and photonics, OSA welcomes the opportunity to work with our federal agency partners in developing a public access solution that meets the needs of all stakeholders. Towards this end, I would like to discuss

four issues that OSA believes are key to the successful implementation of a public access policy.

First, I would like to talk about quality, integrity and reliability. Journal publishers like OSA, are the most trusted source of scientific output for the research communities that they serve. OSA's publishing expertise and the technology, as well as its sustained long term financial investments in its journal program, allows it to transform more than 8,000 raw manuscripts a year, into high quality versions of record.

It also allows us to ensure the integrity and permanence of this content and to provide the fastest, most accessible dissemination of this knowledge around the world.

Currently, 50 percent of OSA's journal content is produced by the Gold Open Access Model. The implementation of open access at OSA is the result of an innovative culture that started more than 16 years ago, when OSA launched its first open access journal, Optics Express.

Today, this journal, which publishes roughly 4,000 papers per year, is one of the most highly cited journals in its field. Its reputation and continued growth demonstrates OSA's longstanding commitment to open access. Yet, while we support open access, we believe it is crucial that any mandated public access policy not compromise a

publisher's sustainability. Doing so could result in significant harm to the quality, integrity, and reliability of the published results.

Speaking of sustainability, today publishers provide more options for accessing journal content than ever before but this access comes at significant cost. For non-profits like OSA, substantial disruption to our revenue streams and copyright ownership, could negatively impact the economic ecosystem used to underwrite the highly beneficial outreach, education, and career development programs that we offer to our scientific communities.

One solution that may meet the goals of both publishers and the administration, is the decentralized archive option that provides links back to the publisher's website. A decentralized solution will enable public access to federally funded researcher findings without any additional cost to tax payers, will allow funding agencies to provide grants to researchers, rather than diverting funds to a government specific platform. And will rely on publishers to provide a robust infrastructure for the production of high quality peer reviewed research.

My third point relates to flexibility. Scholarly publishing continues to change as a result of technological and business innovation. This innovation has led to multiple access points to journal content. In order to

continue to provide a wide variety of access options, publishers need a great deal of flexibility, especially as it relates to embargo periods and copyright ownership.

For Gold Open Access Publishers like OSA, publishers must be allowed to continue to own the copyright to the content that they produce allowing for any individual or organization, to use content that is publicly accessible without regard to copyright, will likely have several unintended and detrimental consequences, especially for authors.

For publishers, copyright is key to remaining competitive on a global scale and to developing new derivative products that further advance science.

My last point has to do with the importance of public/private partnerships. Publishers and government have a shared goal. We both want as many scientists and other users around the world as possible, to have access to our content. Public/private partnerships offer government substantial expertise, technological innovation, as well as distribution and archiving models that can reduce or eliminate duplicative governmental costs and improve efficiencies.

FundRef is an example of a partnership funded by publishers at no cost to tax payers that will help federal agencies identify the journal articles related to the

research that they fund. Other public/private partnerships initiatives are underway and will likely provide U.S. federal agencies with low cost tools and processes to address the administrations requirements, while ensuring sustainability by all partners.

Critically, these types of initiatives will allow government actors to utilize existing resources rather than diverting funds to pay for new publishing infrastructure.

Thank you for the opportunity to speak today.

STAFF: Thank you so much. Next up we have Michael S. Turner. The microphone is yours whenever you are ready.

Michael is not here? Okay. Instead we will go to our next speaker who has informed us that Michael is not here. Thank you, Joseph. The microphone is yours whenever you are ready.

JOSEPH SERENE: I am representing the American Physical Society. A non-profit organization with over 49,000 members, working to advance and diffuse the knowledge of physics through its research journals, scientific meetings and outreach activities.

APS publishes 10 journals, which include over 18.000 peer reviewed research articles each year. Three of these journals are Pure Gold Open Access, one since 1998, the others are all hybrid with the option of open access

under a CC BY license. Since 1997, APS has maintained publication policies warmly friendly to open access, allowing all authors versions of a paper to appear on any free site, at any time, without embargoes, and allowing authors to post APS preferred version of record on their own websites and on institutional repositories.

APS was also the first major publisher to offer its full online content free of charge to U.S. public libraries and high schools. Hence, APS supports the public access goals of the OSTP Memorandum, and welcomes its encouragement of public/private collaborations to avoid unnecessary government duplication of existing mechanisms.

These later goals are of particular concern for APS and other scientific societies, because any funding agency resources unnecessarily spent on implementing public access will not be available for actually carrying out research.

At the same time we want to recognize the crucial contributions of scientific publishers to the research enterprise and the need for sustainable funding to support these contributions.

Peer reviewed journals are even more essential in our Internet enables environment, where a vast amount of unrefereed scientific literature is freely available on the web. The importance of peer review is enhanced by the

growth of interdisciplinary research and extends not only to the scientific community, but even more so to the general public, whose members have no other basis for discriminating reliable science from bogus claims.

Peer reviewed scientific journals represent a remarkable cooperative activity of the international scientific community. For example, in 2012, APS, a mid-size publisher, approximately 35,000 submissions with the help of 25,000 volunteer peer reviewers. But in spite of the major contributions from volunteers, peer reviewed journals are still expensive to produce There costs are covered primarily now, by subscriptions from libraries and universities, colleges and research organizations.

We would be happy to have these charges covered by article processing charges if that could be accomplished without serious damage to research funding. But that does not appear to be a possibility in the United States at present.

Hence, we urge the federal funding agencies to take great caution to implement public access in ways that minimize the threats to existing subscription based business models. We warn urgently against uncritical acceptance of the generalizations across disciplines and the uncontrolled data, which frequently plague discussions of this topic.

Among other things, this will require careful attention to appropriate embargo periods. For example, three quarters of downloads from the APS journals platform occur more than one year after publication.

We also urge those who favor funding agency repositories as the homes of our long term archives to consider carefully the potential implications of recent threats of discipline or topic specific congressional interference with NSF funding. We should not comfort our self by saying this can't happen here.

APS strongly urges federal funding agencies not to duplicate the services and systems already provided by publishers, by building and maintaining their own repositories and platforms. Instead we hope to collaborate with other publishers and with funding agencies to identify an index of government supported papers that we publish to host public versions of these papers on our existing platforms, to continue to provide secure archiving through independent non-governmental organizations, such as Portico, LOCKSS and CLOCKSS. And to facilitate search and discoveries of these papers trusting the private sector to continue to be the hotbed of innovation and information technology.

We believe this can all be done at minimal cost to the government, saving scarce funds for research support

and we look forward to pursuing these kinds of collaborations. Thank you for your attention.

STAFF: Thank you so much. Next up we have Frederic Dylla. He will be our final scheduled speaker for the day and then we will be moving to walk-in registrants. Whenever you are ready the microphone is yours.

FREDERIC DYLLA: Thank you. This is probably the only time in my life that I can say, I thank the Academy, but I do thank the Academy and the organizations from the federal agencies for this important discourse on this subject.

Being the last scheduled speaker, I had time to reflect on everything this morning and yesterday, and I was particularly struck by the excellent invited talks that led off yesterday's session, that noted that for three and half centuries academia, libraries, and publishers, have been aligned in their mission to be the primary means of communicating scholarship to academia for all of the benefits that have been discussed at this meeting and elsewhere.

Over the last two decades or so, that alliance has been frayed over a number of issues. They have often been conflated. In this meeting we conflated three issues; the problems of library budgets, they have called it the serials crisis for 30 years. My colleague, Alicia Wise

from Elsevier, noted that serials have been increasing - number of titles have been increasing for practically that entire period that we have been keeping records. It has been scaling with R&D budgets in this country since World War II, and so have R&D budgets at universities, but library budgets have not. I will do a mea culpa as a publisher, as a publisher we have not come to defense of librarians to help you with that problem.

Four years ago I had the pleasure of serving on the Scholarly Publishing Roundtable, which was chaired by John Vaughn, that you heard yesterday, this group included all the cohorts at this meeting. And we examined a series of principles on the benefits and the sustainability of scholarly publishing that we have heard about at this meeting. Fortunately those principles were coded in the America COMPETES Act. That legislation led to the OSTP Memorandum that we have been addressing, and I thank OSTP for its leadership in continuing the discussions with the agencies and broadening to the discussions and the cohorts in this room, to deal with the interrelated issues of enhancing access to all unserved sectors, interoperability, and promoting innovation.

We have conflated two other issues at this meeting and elsewhere in these discussions, other than the library budget problem, and that is open access is a

business model. Almost every publisher uses open access. I consider myself an open access advocate. And it is one of a number of business models that is a mark of the rich diversity of this industry, which includes thousands of publishers and tens of thousands of titles.

The third issue we have conflated is the very real issue of providing public access to the results of publicly funded research. We are focusing today and yesterday, on publications but there are the related issues we will hear about tomorrow on data, and we have also heard about reports. They are all issues of openness and government.

I was struck by the number of speakers from my cohorts, other than publishers, who did not mention publishers by name yesterday. It was like we did not exist. Okay, we are part of the problem but we are a part of the solution of these problems. The solution hinges on sustainability. What we have been talking about is the use of an embargo that would preserve the primary business model, which is subscriptions. I second all the remarks made this morning that that has to be carefully done, particularly for fields that are not as well funded as where we have most of the data, which is biomedicine.

I also second the remarks you heard this morning about how publishers can provide some very real solutions

at low cost to our friends in academia, and to the agencies, by partnering with you with projects that we can do best, like the FundRef Project. If any of the other cohorts had to solve the problem of identifying what articles are tagged with funding, it would have been a very expensive data-mining operation. In less than a year, three of the federal agencies working with CrossRef and seven publishers, have stood up FundRef, and it will be an important building block.

Thank you very much.

STAFF: Thank you so much. At this point we will open up the microphone for other individuals in the room who had not previously registered to speak. So if you are interested in talking, please come up to the microphone. Thank you.

DR. HAUSER: There being no walk-in registrants, we will take a break now and reconvene as scheduled at 11 o'clock for the report of our rapporteur, Bryan Heidorn of the School of Information Sciences at the University of Arizona.

Thanks very much.

(Break)