DRM: A Publisher-Imposed Impediment to Progress, or a Legitimate Defense of Publisher/Author Intellectual Property Rights

Adam Chesler
Business Expert Press/Momentum Press

Jim Dooley
University of California/Merced

David Parker
Alexander Street Press

Zac Rolnik
NOW Publishers

Follow this and additional works at: http://docs.lib.purdue.edu/charleston

Part of the Library and Information Science Commons

An indexed, print copy of the Proceedings is also available for purchase at: http://www.thepress.purdue.edu/series/charleston.

You may also be interested in the new series, Charleston Insights in Library, Archival, and Information Sciences. Find out more at: http://www.thepress.purdue.edu/series/charleston-insights-library-archival-and-information-sciences.

Adam Chesler, Jim Dooley, David Parker, and Zac Rolnik, "DRM: A Publisher-Imposed Impediment to Progress, or a Legitimate Defense of Publisher/Author Intellectual Property Rights" (2014). Proceedings of the Charleston Library Conference.

http://dx.doi.org/10.5703/1288284315619

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries. Please contact epubs@purdue.edu for additional information.
DRM: A Publisher-Imposed Impediment to Progress, or a Legitimate Defense of Publisher/Author Intellectual Property Rights

Adam Chesler, Director of Library Relations, Business Expert Press/Momentum Press
Jim Dooley, Head of Collection Services, University of California/Merced
David Parker, Vice President, Editorial and Licensing, Alexander Street Press
Zac Rolnik, President and Publisher, NOW Publishers

The following is a lightly edited transcript of a live presentation at the 2014 Charleston Conference. Slides and videos are available at http://2014charlestonconference.sched.org/

Adam Chesler: All right, thank you all for coming up to the Gold Balloon here for our presentation about DRM. We have four, as you can tell, panelists up here and you have all of our bios are in the programs so we won’t bore you by giving too much detail about ourselves other than to give you the order of presentation. We’ll be starting with Jim Dooley from the University of California at Merced. Zac Rolnik is with NOW Publishers. David Parker is with Alexander Street Press and I am Adam Chesler from Business Expert Press and Momentum Press. So we’re going to try and keep our presentations reasonably brief with a goal of leaving plenty of time for some questions and some discussions so there is at least one, possibly two microphones in the room and at the end of the talks here if you have questions please step up to the mike and remember to provide your name and affiliation because context is important. Without any further ado I’m going to let Jim get started.

Jim Dooley: Okay, thanks. I’m Jim Dooley, I’m the head of collections services at the University of California Merced and I thought I would start off today just with a definition, and this is one definition from Wikipedia, of what DRM is and some context of what we’re talking about. This definition says it’s a set of access control technologies used by hardware manufacturers, publishers, copyright holders and individuals to control the use of digital content after sale, and it’s the after sale that’s one of the important things here, because this is technology that sits with the content literally forever and controls all the way downstream what the user can do with that content. The intent is to control executing, viewing, copying, printing, and altering of works or devices. This one working definition of what DRM is. I’m sure there are others. When we get to the questions perhaps some of you in the audience may have somewhat different definitions.

I want to talk today, particularly since I’m the librarian on this panel, of the problems that DRM poses from the perspective of individual librarians and also libraries as an institution. The first problem is a very simple one. Libraries today, whether they’re whatever type of institution they are, provide a large number of different types of electronic resources from a significantly large number of publishers and some of these are without DRM, some of them have DRM regime A which does some kind of limitation on printing, copying. Others from different publishers have DRM regime B. You have C, D, E, etc. This is extremely confusing to the library user who has to try to figure out, “Okay, what can I do with this and why can I not do with this particular thing what I was able to do with this other one?” And that kind of confusion and difficulty for the user obviously affects library services and so reference librarians, instruction librarians spend an inordinate amount of time trying to explain to users, particularly freshman and sophomores, “Okay, you can do this here but you can’t do that. You can do this with something else but you can’t do that.” And a great deal of time and energy is wasted.

One of the other things I’ve noticed over the years, particularly from public service librarians, is whenever I, or anybody else in collections, say we have this new electronic e-book package, journal package, whatever, many times I get this sort of deer in the headlights look from my colleagues of,
“Oh blank, here’s another one of these things I have to learn and I have to learn what it does and what it doesn’t do.” And one of my arguments here is that this is not helpful to the adoption of electronic resources generally in libraries. Looking at it from the point of view of libraries as an institution, I think there are several issues, problems with DRM. The first is it certainly has the potential, depending on how it’s used, to prevent preservation and archiving of content by libraries and libraries, museums, cultural institutions generally have a long history of preserving content and if you have DRM that makes particular electronic content go away after a particular period of time or limits the number of uses and then it goes away, obviously this has significant impact long term on the ability of libraries to preserve that content.

DRM also has the possibility often times the reality of preventing legitimate uses under the Copyright Act. It prevents users from exercising their fair use rights in their use of particular electronic content. This again I think is particularly problematic. One of the things that I’ve seen over the last, oh three or four years particularly, is that publishers very often, now particularly in the e-book market will use DRM essentially as a marketing tool. The pitch is, “Okay, we will make this content available on our platform DRM free but if you want to get this same content through, for example an aggregator then it’s going to have various kinds, flavors of DRM on it.” So, that leads me to the conclusion that in many cases publishers are saying, “Okay, we don’t really need DRM here. We can give it up provided it’s a way of getting us some sales,” and the result of that for libraries is that the presence or absence of DRM has become part of the criteria by which we evaluate offers and we try to make judgments about, “Here’s this package from a publisher without DRM. Do I want all of those titles? Am I willing to pay for a significant number of titles I don’t really want so that my users can get DRM free access or would I rather, for example, use DDA through an aggregator and accept the fact that there’s going to be DRM on that content?” These are the kinds of judgments we have to make regularly and so I’ll just wrap it up here by saying that at least by the library perspective DRM has various negative effects on scholarship and on the ability of libraries and librarians to provide service to our users and to do the things long term that libraries have traditionally been able to do.

Thank you.

Zac Rolnik: Hi, I’m Zac Rolnik from NOW Publishers and actually when David and Adam asked me to be on this panel I immediately said, “Yeah, sure, great.” Then I realized “Gosh, I don’t do DRM on my content,” and I was like “Wow, I wonder why they picked me?” So, I hope I make some sense here.

Since my publishing company does not put a DRM wrapper on its content, I just put together some talking points that I thought I would raise with you and then actually as it occurs to me as it relates to DRM. And some of these are like, do we, and we’re talking about proprietary content not licensed content where the licensor might require you to put some DRM around it to protect their content and we’re also not an open access publisher so, but we have the question of, as a publisher we want to maximize the distribution of our content and the same time we want to control access. Those are sort of conflicting points of view and it’s one of the reasons we don’t put DRM on our content and we give our authors the PDFs, we want them to distribute it; we think it helps promote the product of a new publisher and is one of the questions I always have.

The next is the impact on the user experience and just as you know, if you have your user names and passwords for all these different sites you go to, DRM is even more complicated and we know how much we hate to remember all of our user names, all of our passwords and from my perspective I want the user of my content to have the most pleasant experience getting to it. I don’t want them to be cursing as they’re trying to get to the content. So that’s another issue that always occurs to me about DRM.

The next is the cost to implement and manage DRM. Our feeling was that the benefits of protecting the content are not nearly as great as the cost to implement, administer, manage that DRM so, and lastly I kind of feel isn’t some seepage of our content okay and even good? It's
almost impossible to prevent it if you just take a title of an article or of a book you put it in quotation marks and put it into Google, you're going to find that article for free somewhere. It may not be the version of record; it may be a version given at a conference or a copy on the author's website but our feeling is actually, that seepage is good. We want people to sort of say, “Hey, oh, I never heard of this publisher, I never heard of this journal, I've never heard of this book,” and getting that access so for those reasons alone I always question as the publisher of primary proprietary content what is the value to me of DRM? And then I actually looked at DRM in the STM space and I'll also include not only STM but also academic publishing in the fields of humanities and social sciences and when I looked online I saw that and I think that this is correct but it may not be that Elsevier, Springer, Wiley Blackwell, their e-books, at least purchased directly, have no DRM on them. And so I'm wondering where is all this DRM and I know David mentioned that to me for a lot of his content they're actually required by the licensor to actually put DRM around it.

The next thing is, and I know this is not true but, you know, the idea the big deal is that everybody has everything. So, if everybody has everything why put DRM on it? Since if you assume that, you know, the majority of institutions are currently participating in big deals or consortial deals, is DRM really of any value. It also flies in the face of open access. Now again, I'm not an open access publisher, but, given the rise of interest in open access I just don't see the, there you would not have DRM at all.

And lastly, as Jim mentioned, is the issue of fair use and DRM also there kind of makes it difficult in certain circumstances to apply fair use as the patron of the content to share with other people. So for those reasons I kind of wonder is DRM really an issue amongst the, both for publishers I can see from Jim's comments the impact it has on the library and the library user but as a small STM publisher we really don't see much value for ourselves in DRM. We don't think that it would add to our business and we don't think that we're actually losing business because we don't have DRM. Those are just my brief comments, thanks.

**Adam Chesler:** So, you've already heard a couple of reasons why people don't think too much, too highly of the notion of DRM, but I thought it would be useful to explain at least, or at least to give some kind of sense or why might a publisher or a provider want to implement DRM regime. We can talk about how it is a marketing component and there's no such thing as bad publicity and it's a good thing when people find out about content by using it or sharing it but I think that there are plenty of good reasons why a publisher, and I'm using that in a generic sense, not one particular kind of publisher or one publisher in particular, would want to protect its assets and would want to make sure that there was some way of, we were talking the other day and the phrase that came into my mind was controlled maximization which is, “How do I make sure that I have some control over the way I'm getting this content out there while ensuring that it's used as much as possible?” And what DRM can do is enable the publisher to manage that process. For instance, if content is freely distributed then it's tough to track the usage. I don't mean in an NSA way track usage, but I mean, how do I know how much usage there's been? How do I go back to the customer at the end of the year and say “Hey, this is how much the content has been used, is this something you want to buy again going forward?” Because we can actually look at that and say “Here's how much it was used because it wasn't shared freely.” There wasn't a lot of lost tracking of the usage so there can be a creation of additional sales opportunities.

Jim mentioned the marketing component of that which I think is a good point. Speaking as a small publisher, if all I did was sell stuff indirectly I'd go out of business, so how do I drive people, the buying community, to buy from me directly? Well one of the ways I do that is by offering a better version or a better value for coming to me directly so there are going to be reasons why some publishers are going to apply DRM in certain circumstances because it's part of a business model which is how do you direct the traffic to the place you want it to be? In finding

**Plenary Sessions** 139
that middle ground, finding that balance of course is important. It may not work for everybody but there are some good reasons why a provider is going to apply DRM or use DRM as part of a strategic plan as opposed to it just being a knee-jerk response to the fear of distribution in the wild.

Having said that, what I wanted to briefly talk about a little bit were some of the administrative ramifications of DRM because if you want to implement one of these regimes it's not simply a matter of pushing a button. We, for instance, Business Expert Press use and Momentum Press use SERU. I would be a little bit concerned about using something like SERU if I had a really strict DRM regime in my content because I'd want to be taking care to ensure that everyone knew exactly how restricted the usage was going to be once they purchased the content. The ramifications of that is that I don't have a large staff. In fact, when I started working at BEP I think I was the third full-time employee that was hired, maybe the fourth. I didn't have time to negotiate licenses and to worry about that so not having to deal with that was an important consideration for us. We simply didn't have the time and resources to have enduring legal discussions about our content. We needed to drive revenue as quickly as we possibly could so eliminating that as a concern, never mind that it was appealing to our community it was also something that made sense for us on an internal basis because I didn't have to worry about it.

Zac mentioned the cost associated with this, especially on a technology front, and Jim talked about how there could be different flavors of it, to have to administer all that, to have to develop it and then to have to keep track of it and understand how this platform might be enabling this but another platform might be enabling something else, having to explain that to every single customer or every single user, to every single author, is a time consuming process, one which we didn't feel we had to take. These things make it harder and one of the things, you look at our website it says we're easy to buy, easy to own, easy to use and it's the only way we could do it effectively was to not get tied down with these different layers of security. I don't want to monitor users. I don't want to monitor my partners. I don't want to worry about who's using it, how they're using it, why they're using it, I just want them to use it and, as Zac pointed out, by not implementing these sophisticated or challenging or complex restrictions we ensure that people can get access to the content as quickly as they can and can use it as much as they want to and how they want to use it and it's really important for us to get the word out so people are distributing this stuff and sharing it. That's kind of a good problem for me to have at this juncture. If I wake up someday and find out that someone downloaded 500,000 articles from my website overnight I will worry about it but I will probably secretly be really happy to know that that many people care that much and think there is that much value in my content. It will be the start of, it will be a problem but it will be an indication of a good problem for me to have and that's certainly not something that I'm especially worried about.

As I mentioned before, there's a sales cycle that we want to accelerate, not slow down, and if our sales team has to spend a lot of time explaining to each customer exactly what they can do, and how they can do it, and when they can do it, and what restrictions there are, as opposed to how easy it is, then they're going to be spending a lot of time doing things besides selling and moving on to the next customer. So, when we added all that up and we looked at the ramifications of not just from, David's going to talk a bit about the author perspective, when we thought about it from how we build our program and what our strategic plan is for our type of content, and I think that this is something that other publishers look at, too, it became clear to us that restricting access, building in all of these technological hurdles, would probably be something that will actually slow down our development and not accelerate it. So you get the marketing component that Jim talked about and we try to use DRM I think selectively in an effort to build a larger program and a larger strategy for our company. So, with that I'm going to turn it over to David who's going to talk a little bit more about the people who are actually writing this stuff.

David Parker: Do we have any authors here who've actually published a book and had it
posted as an e-book? Anybody? How many e-book publishers do we have here? I might say some things that mean I have to run for the doors. Let me know if I need to hide. I was a publisher of e-books books for a long time and the assumption we generally started from was that as a publisher our interests were closely aligned with authors on DRM. Over time I’ve come to see that rather differently and I want to look at three reasons today where I think author and publisher interests are not aligned around DRM.

The first is the issue of the platform. The e-book reader platform, the e-book reader itself within which the e-book resides and then the e-book platforms on which they reside are multiple and many. The result is that you’ve got almost a double layer of trapping of knowledge creation around the content that can’t get out, it cannot be found and in a world of gold and green open access where we’re all talking about, in the journal world, how do we access not just the information but also the knowledge generated by the information that second- and third-level commentary on the content we can’t get it inside of an e-book reader platform. So if you’re an author that’s written a book, you’re proud of it, it’s a scholarly work and you have it published inside of a DRM laden e-book reader and e-book reader platform, that peripheral knowledge is never getting out, it’s trapped, it lives there forever and I think that’s a fundamental problem that I didn’t really understand until I started working with hundreds and hundreds of scholarly authors who were disincentivized to publish books over journals and largely because they couldn’t see the dissemination of a conversation around their content that they created. That’s number one.

Number two is pricing. E-book delivery inside of DRM pricing models are really just an extension of print pricing models and I came to realize over time, particularly in my work at BEP that we might actually generate greater royalty, greater opportunity for authors by deviating substantially from print pricing models and in fact envisioning pricing models that were entirely rooted in a born digital world where there was no recourse to print pricing so I don’t have answers today, what’s the right pricing model, but I’m afraid that we’re not even engaging in the conversation around e-books because DRM is so closely linked to that original pricing model driven by print and it just eliminates the conversation and more importantly it eliminates the creativity that could come in pricing.

Last is piracy. We all have seen, I guess all of you have kids like I do, I’ve seen my daughter download songs from bit torrent and share them with thousands of her friends, and I mean thousands, she has thousands of friends in her social media network, and I know that that scared us all as publishers and it scared authors a lot. They thought “Wow, my book is just going to fly out there and I’m never going to see a sale,” but I think what we’ve actually seen in the scholarly and learning space is that the piracy hasn’t really happened to the degree that we thought it might have happened, but the argument continues to be perpetuated with authors and having been on the side of negotiating contracts with hundreds and hundreds, if not thousands, of authors every time it’s the first point they bring up. “Well, how are you going to protect my content against piracy”?

And I have to go and show them that the instances of piracy of scholarly and learning content are simply not significant to the point that you need to be worried or concerned about this, and in fact, the instances of piracy for scholarly and learning content are actually good because it’s usually Professor John sends Professor Mary a version of an article or a book that they saw that they think they should be aware of, which increases exposure of the content, exposure of the publisher, and ultimately exposure to greater sales opportunities. Anyway, that’s my sh*tick and we’ll turn it over to you now for questions.

Adam Chesler: There has to be at least one.

Unknown Speaker: Hi, this question is for David. You mentioned that you show authors that piracy is not pervasive. Can you maybe go into a little more detail about that because that’s a question that I encounter as well?

David Parker: Sure, and keep in mind I'm speaking about scholarly and secondary learning content. You know, I'm not talking about an introductory to
biology textbook but the experience we have with authors is we would actually, this is prospective authors, we would take them on the web and we would start showing them examples of books that we had published and been available for two or three years and try to find version—

**Unknown Speaker:** We can't hear you.

**David Parker:** Is that better? Sorry about that. So, what we did with prospective authors is that we would take them onto the web and we would start trolling illegal file sharing sites like bit torrent and others and try to find versions of books that we had had in the market for a couple of years that were readily available as pirated copies and we would have to go through two or three, four, five, six, seven, eight entries in our catalog before we'd find one and we would have to search multiple sites unlike music and that's why I use the example of music. I can type in any song from my favorite band Dire Straits and I can find 1,000 places where you can quickly steal that cut that you want to hear so that's how we would show them.

**Unknown Speaker:** Hi, I'd like to strongly disagree with the last gentleman's point that stealing of digital content is not pervasive. I work for a journal and our content is stolen every day. It's put on a site in Russia called Cyhub and our journal is completely reproduced on that site. Not only ours but almost every journal. This site comes from a library's proxy server by either stealing passwords or on a proxy from another user. They have, they take the library's journals, all of them, and they also reproduce PDFs on a site called Livegen from India so it is a real problem for at least scholarly journals, I don't know about e-books but digital piracy is pervasive.

**Adam Chesler:** Do you guys have DRM on the content?

**Unknown Speaker:** No we don't. I'm not familiar with technology that would, you know, because we want the users to use our content. I'm just not familiar with any technology that would not allow for this reproduction but would also allow our legitimate users to use it properly but if I did find such technology we probably would implement it.

**Adam Chesler:** I think that that's part of the tension that exists, and Jim addressed it and we talked a little bit about that, is how do you find that middle ground where you can liberate the content just enough to satisfy the business needs as well as the user and the community needs? And I don't think any of us would pretend that the perfect answer exists right now, or that if we could figure out a way to control this a little bit more without restricting it and preventing fair use etc., etc. We would like to avoid that too so it's part of the challenge I think that each institution, each organization has to make a decision about what's going to work for it and what works for it for now, or for BEP, is not necessarily going to work for Alexander Street Press, and it may not work for you guys and that's part of the challenge right now.

**Zac Rolnik:** My feeling about piracy, though, is the people who typically will look for pirated copies would never buy your content anyway, they're not your customers and we're too small to chase down all the pirated versions, whether it's Rapid Share or this site or that site. We do go to those sites and we tell them please take it down but I really don't think, I have no evidence that it is significantly stealing business from us. I simply think that those are people who probably wouldn't buy your content anyway.

**David Parker:** I just wanted to thank you for disagreeing with me because that validates that it should be one of those main points we're discussing.

**Unknown Speaker:** I just had a question, I was curious, how does the DMCA, Digital Mime Copyright Act, interfere with publisher's plans to use DRM as a marketing tool or as a tool to control use or does it just dovetail with it?

**Jim Dooley:** Well again, speaking from the librarian perspective or the user perspective obviously if we attempted to disable DRM on any of the content that we have purchased or subscribed to we would be violating DMCA and presumably the Feds would come after me or whoever was doing that but again I'll defer to my colleagues on whether there is anything regarding DMCA from their perspective other than it does,
at least section 1201, make it a crime to disable electronic controls on content.

**Adam Chesler:** All I’ll do is plead ignorance and say that I’m not really sure that we’ve had to address anything with DMCA. We haven’t had to deal with the DMCA and maybe it’s because we don’t use DRM but I really can’t, I wish I could give you an answer to that, a better answer to that. I don’t, we haven’t run into any issues with it.

**Unknown Speaker:** Hi, I’m wondering if you can talk a little bit more about your ideas for separating the e-pricing models from print, especially if you think that the e-prices would go down below print or any of your ideas.

**David Parker:** I think we were on that topic last night at dinner for two-and-a-half hours. I’m just going to, in the interest of time, I’m going to make one comment in response to your question from last night’s conversation that I think would be a fertile area for discussion for all of us and that is as DDA programs grow and libraries and universities look for more diverse kinds of content, particularly high use content that did well in the print world, I think we should be open to discussing very, very high unrestricted access DRM free per unit prices through DDA models. For example, at Alexander Street Press I have a clip or a segment that I know would be viewed 2,000 times a year by students on your campus and I was willing to give it to you unrestricted access, would you give me $10,000 for it for that one piece of content? You’d probably say “No, no way, no way,” but it’s a conversation we don’t seem to be engaging in and I think that that’s what DRM does. It stops that conversation.

**Unknown Speaker:** I just wanted to address the comment about pirated materials not being utilized by your potential customers and that may be true about the libraries’ but I’m not certain that it’s true of the student who’s referred to or used to utilizing pirated songs, movies and if they’re utilizing pirated journals or books the library might not then be purchasing them, so.

**Zac Rolnik:** Well, I think that is actually correct. I mean one of the problems without having DRM on your content is as all the librarians in the room know that you’re looking at the usage of our content to justify purchasing or renewal of the content and without DRM there’s nothing to prevent a professor from downloading it and then just emailing it their students. There’s no violation of a license there but the result is rather than getting 25 downloads for that particular piece of content you’re getting one download of that piece of content but at the same time I just kind of like the idea that people have no problem accessing the content and in terms of those students who are finding the pirated content I will again say that they’re not going to buy it, they’re not going to spend, whether it’s $39.00 for an article or $35.00 for an e-book or whatever it might be, if it’s not free. Even if it was $2.00, they’re still not going to buy it.

**Jim Dooley:** And I’d just like, again from the library's perspective, many of us have become, and I will admit this, certainly slaves to usage numbers to determine whether something is of value and whether we want to resubscribe to it. I think that many of us, and I’ll speak for my colleagues here at the University of California, we have spent a goodly number of years, and I think we’re about ready to put all of this stuff out for public comment, trying to develop much more sophisticated metrics to enable us to determine value rather than simply the number of downloads but I’ll admit this is a problem. If you get pushed in a corner and you have no money, just usage numbers, raw usage numbers is an easy way to go but I would hope just from the librarian’s side that we can become a bit more sophisticated than that and to try to understand exactly what we’ve been saying here that, yes, there is leakage. Yes, usage, raw usage numbers by themselves are not a particularly good metric for value.

**Adam Chesler:** I think that there's, what Jim's touched on there is actually, it's kind of like the holy grail of pricing models which is how do we determine value or rather how do you determine value because I can establish a price but you’re going to determine the value. You’re going to or the users are and trying to figure out a way to measure, monitor and to meter that is one of the ongoing challenges we have. I think a lot of the
people up here and certainly the publishers in this room have gone through pricing model exercises in trying to figure out, “Alright, what are we going to do, peers or usage or FDEs?” or “How are we going to assess this?” and I don’t think we know. I think we’re still trying to experiment with that and that’s where I think some constructive dialogue, independent of things like DRM or the print world or whatever, how do we assign value to this and how do we then fit that into a budgetary model that the budget model that you guys have with the material, with your materials budget which of course is growing, if growing at all incrementally, it's not leaping. David mentioned if he had some incredibly useful piece of content you could easily say, “Yeah, it’s probably worth that.” But, if, you know, if that's going to cost you $10,000 and you're budget is $20,000 can you really afford one article for that kind of money even if you’re spending a few dollars to download? That’s part of the ongoing challenge. How do we figure out what that value metric is and how do we apply that broadly if it's only going to be on a, if the publisher has something different?

Unknown Speaker: Zac, if widespread access is a desirable outcome for your content does that bring you closer to contemplating becoming an open access publisher either partially or fully with the titles that you're publishing?

Zac Rolnik: We've actually, well we have two types of products. Our primary product we actually pay our authors and we pay our reviewers. Our authors tend to be for that product tenured and shared professors and in addition to that the fields we work in, business, economics, electrical engineering, are not wellsprings of open access, it's not a really open access environment so for that reason all these foundations and trends and even for our regular journals, we've thought about it but it's not a model that we have decided to move towards.

David Parker: And the complete counterpoint to that, Zac, will beat me up later for this, is I think content and information is getting more rather than less open. I think that's sort of a fundamental fact that I hope it's not debatable. I think everything across my 20-year career shows content is more rather than less open and as publishers, if we don't experiment with open access, if we don't dive deeply or dive shallowly into open access and play around with the opportunities it presents to new business models than we might miss the boat.

Zac Rolnik: I just want to make one, nothing to get into, we actually, we are green open access. We provide authors with the PDFs, they can post them on their websites, on institutional repositories, the version of record, there's no embargo period on that, so, I guess in some ways we are open access but we still are publication model. Our business model is a subscription based model rather than an APC model and again part of it is just the environment that we're in. If you look at biomedical publishing my guess is 75% of research, at least 75% is federally funded. I can tell you in business and economics probably less than 5% is federally funded. The environment, it's just a very, very different environment. There are no grant monies to be able to pay for these APCs and in business and economics, I'm aware of only one very successful open access journal and actually that has migrated toward a subscription model also.

Adam Chesler: No other questions? Well, we're wrapping up about five minutes early today so on behalf of the panelists up here I'd like to thank you all for joining us and for your questions and I'm sure all of us who are here will welcome follow up feedback if you care to share it with us after the conference. There are evaluations; please fill them out. Enjoy the rest of the show.