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DEPARTMENT OF COMMERCE

PUBLIC MEETING ON

DEVELOPING THE DIGITAL MARKETPLACE

FOR COPYRIGHTED WORKS

FRIDAY, DECEMBER 9, 2016

8:30 A.M.

U.S. PATENT AND TRADEMARK OFFICE

MADISON AUDITORIUM

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OPENING REMARKS**(8:32 a.m.)**

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3 MS. PERLMUTTER: Good morning, everyone, and
4 welcome to the USPTO. I'm delighted to see so many of
5 you with us here today and also those watching online or
6 joining us in one of our regional offices. Today's
7 meeting is hosted by the Department of Commerce's
8 Internet Policy Task Force. And for those of you who are
9 not familiar with the Task Force, it was formed by the
10 then Secretary of Commerce in 2010 to look at the policy
11 and operational issues impacting the private sector's
12 ability to realize the potential for economic growth and
13 job creation through the internet.

14 The Task Force's work since then has only been
15 amplified by an increasing focus on the digital economy
16 at the highest levels in the Department of Commerce,
17 including the recently formed Secretary's Digital Economy
18 Board of Advisors. And as part of the Task Force's
19 effort, the USPTO and NTIA have focused on copyright
20 issues, producing two papers, a green paper in 2013 on
21 copyright policy, creativity, and innovation in the
22 digital economy; and a white paper earlier this year that
23 made a number of policy recommendations.

24 In the green paper, one of our key topics was
25 how the government can help facilitate the further

1 development of a robust, online licensing environment.
2 And as many of you know, because many of you
3 participated, we've already held two public meetings and
4 solicited public comments on that topic. The most recent
5 meeting was in April 2015, so now more than a year and a
6 half ago.

7 And in that meeting, we focused specifically on
8 the development and use of standard identifiers for all
9 types of works of authorship. We looked at
10 interoperability issues among systems and databases used
11 to identify the owners of rights and the terms of use for
12 works. And we looked at the possible creation of a
13 portal such as the Copyright Hub that was under
14 discussion in the U.K. for linking to those types of
15 databases and licensing platforms.

16 Now, since that time, as happens in internet
17 time, there has been a tremendous amount of development.
18 Different technologies and different rights management
19 solutions have emerged to address the challenges in
20 different content industry sectors, and some of those
21 we'll be hearing about today. We also recognize that
22 these discussions are far from limited to the United
23 States, that they're taking place around the world,
24 including in Europe and Canada and China and Japan. And
25 in the global environment in which digital content is

1 shared, of course, standardization becomes increasingly
2 key for discoverability, for growth, and for
3 interoperability.

4 Now, we believe that industry is best placed to
5 develop forward-looking standards that reflect the state
6 of the art in technology. But at the same time, in our
7 meetings and in the public comments you all submitted,
8 we've heard from stakeholders that the government can
9 play a useful role in convening discussions and
10 facilitating constructive cross-industry dialogue.
11 Today's meeting is designed to be the next step in doing
12 just that.

13 So we've brought together experts and
14 representatives from both startups and established
15 industry players to inform us about current initiatives
16 and current challenges in digitizing and cataloging and
17 licensing all types of copyrighted content, and then
18 hopefully to discuss ways forward.

19 So there's a lot to discuss, as you all know.
20 We'll look at how best to identify who owns content and
21 what can be done with it. We'll look at developing
22 catalogs or registries and creating new solutions that
23 can build on those efforts to benefit consumers and
24 creators alike.

25 Now, of course, there's considerable focus

1 these days on the need to move forward in this area. And
2 I note that just yesterday the House Judiciary Committee
3 leaders recommended that the Copyright Office maintain a
4 searchable, digital database of historical and current
5 copyright ownership information and encourage the
6 inclusion of additional information, including metadata
7 such as standardized metadata, so very relevant to our
8 discussion today. So we look forward to an interesting
9 and productive exchange of ideas.

10 So a few housekeeping notes. We'll start with
11 three panels this morning. We will then hear short
12 presentations about some of the new initiatives underway,
13 before we break for lunch and open up the hall just
14 behind us so that you can find out -- look at and find
15 out a bit more about these efforts.

16 After lunch, we're going to have breakout
17 sessions, and if you haven't yet signed up for one,
18 please do so at the coffee break this morning. And then
19 at the end, we will come together in a plenary session to
20 hear some short reports from the breakouts and also to
21 discuss what you think could be fruitful next steps.
22 We'd very much like to hear your thoughts about how the
23 Department of Commerce and/or any other parts of the
24 government can further assist.

25 So before we begin the first panel, it's my

1 pleasure to introduce Paul Sweeting, who is the founder
2 and principal of Concurrent Media Strategies and
3 cofounder of the RightsTech Project, and we've asked Paul
4 to provide an overview of some of the issues and topics
5 that we'll be discussing today.

6 Thank you very much, and enjoy the day.

7 Paul.

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1 **OVERVIEW: CURRENT AND FUTURE INITIATIVES**

2 MR. SWEETING: Good morning. I am Paul
3 Sweeting, and I'm a cofounder of a new initiative called
4 the RightsTech Project, which is a platform for focusing
5 discussion around technology, innovation, involving
6 rights management and rights registries and content
7 identification. And I was asked by Susan to sort of help
8 out putting this program together this morning and to
9 provide just a little bit of overview of why we're here
10 and what we're talking about.

11 So developing the digital marketplace for
12 copyrighted works. Well, one of the main challenges to
13 developing the market is that the market is not uniformly
14 digital. Certainly, the far end, the ultimate end of the
15 pipeline, the consumer end, if you want to call it that,
16 is essentially digital by definition. Consumers use
17 digital devices to access work stored as digital files
18 that get delivered over digital networks. It's a
19 completely digital ecosystem. And all of those
20 transactions -- the accessing, the delivery -- happens at
21 a machine-to-machine level. The files never sort of
22 break character as digital files.

23 At the extreme other end of the pipeline, where
24 content -- where works are created and brought to market,
25 it's not quite as digitally complete, but it's largely

1 and it's increasingly digital. Many works today are
2 created directly as pieces of software, like video games,
3 for instance. Many works are created using digital tools
4 or undergo their first fixation, to use the copyright
5 term, as a pattern of bits. Think about digital
6 photography. The majority of music recording these days
7 happens that way.

8 But there's a big piece in the middle. Call it
9 the business-to-business layer or the rights clearance
10 layer, where all of those machine-to-machine transactions
11 are supposed to be recorded, accounted for, paid for,
12 remitted from, properly attributed, which doesn't happen
13 with the same machine-to-machine efficiency as the two
14 other ends of the -- of the pipeline do.

15 There are a lot of reasons for that. Some of
16 the reasons are basic. The information required for that
17 to happen is not in a machine-readable format, or it
18 might be in different formats on different machines,
19 making it difficult for the machines to talk to each
20 other. In many cases, the information simply doesn't
21 exist because it was never collected in the first place,
22 or it's incomplete, or it's ambiguous. And in some
23 cases, the people who have the information regard it as
24 competitive and are not always inclined to share. I'm
25 not going to name names, but you know who you are.

1 Some reasons have to do with the sheer
2 complexity of the task. If you take the music industry
3 as an example, you know, 15 years ago, 20 years ago, the
4 main business was the sale of physical goods. That's
5 where almost all of the money came from. And those sales
6 could run into the millions for a big-selling album, but
7 it was still within the realm of information that -- or
8 activity that could be relatively easily tracked and
9 accounted for.

10 Who was supposed to be paid and how much from
11 those sales was fairly standard. In some cases, it was
12 actually statutory. And it was well understood, and
13 there were systems that had been put in place over the
14 years to manage that information flow and to manage that
15 payment process. There was certainly a -- you know,
16 occasional disputes around the edges where things weren't
17 always as transparent as they might be, but it was --
18 you know, it functioned pretty well.

19 Today, of course, streaming has almost
20 completely supplanted physical sales. Not only does
21 that change who gets paid and how much they get paid, but
22 it -- it introduces a whole new element into the
23 equation. In the past, where -- when a record was sold,
24 nobody -- except in the case of venues or people who
25 played music publicly, nobody really had to worry about

1 how often a record was played once it was sold because it
2 was not relevant to any downstream revenue stream.

3 In the streaming universe, exactly how many
4 times a record got played in a variety of different
5 contexts is of paramount importance because it determines
6 the calculations as to how much each interested party
7 gets paid. So that's a data management problem that is
8 orders of magnitude larger, and the systems to manage
9 that simply haven't had as -- you know, the time to
10 evolve to the same level of maturity that existed in the
11 physical realm.

12 There are -- there are data management
13 problems outside of the music industry. You think of
14 the photography industry. There's been an explosion in
15 the -- both the volume and the velocity of reuse of
16 visual works, often without any attribution information
17 attached to it. And it's an immense data problem for
18 the industry, and once again the systems for tracking
19 and managing that haven't really evolved.

20 But a bit -- another really big reason for the
21 lack of machine-to-machine efficiency in that middle
22 layer is a lack of standards. The creation and the
23 consumption of digital works is by and large governed by
24 standards. The formats are standard; the network and
25 communications protocols are standard; many of the

1 digital tools and sensors that are used to create the
2 program -- the content is based on standards; and any
3 service provider or creator that wants to get into the
4 market can do so simply by adhering to those standards.

5 But a lot of the important steps in the middle
6 don't have comparable standards to govern them: the way
7 that works are identified and distinguished from one
8 another; the way information about them is presented, the
9 metadata; the way rights in the work are expressed; the
10 way attribution is made. Those are still mostly ad hoc
11 processes that are not governed by standards. And that
12 introduces an element of ambiguity into the system, and
13 machines hate ambiguity. And until you can get that
14 ambiguity out of the system, reducing it to automating it
15 at a machine-to-machine level is extremely difficult.

16 So, today, we're going to be talking about some
17 efforts to create some of those standards and to -- and
18 to reduce that ambiguity and reduce the complexity of the
19 tasks that need to be managed. So our first panel will
20 be talking about efforts to create standards for the
21 identification and description of individual works. Now,
22 we're all familiar with standard identifiers, things like
23 UPC codes or ISBN numbers in the book industry. But
24 those are really merchandising codes. They're designed
25 to make it easier to track and manage retail inventory.

1 What we need, what -- you know, what the
2 industry, the world needs, is a way -- is a standard way
3 to identify works independent of their packaging because
4 a single work can appear in multiple different packages.
5 And we need a way to identify the work independent of
6 those packages, but it has to be done in a way that can
7 be associated with those packages because ultimately
8 what's needed is a way to trace back whatever happens to
9 a particular package. We need a machine-to-machine link
10 back to the underlying work. And that's going to require
11 a lot of standardization effort.

12 The second panel we'll turn to is a discussion
13 of ways to authoritatively register those works and to
14 compile that information into some sort of accessible
15 database. As was just mentioned yesterday, the Chairman
16 and Ranking Member of the House Judiciary Committee
17 issued an initial proposal to create a -- what they
18 called a "up-to-date digital searchable database" of all
19 copyrighted works and associated copyright ownership
20 information within the U.S. Copyright Office.

21 It sounds, at least in principle, similar to
22 what the British government has been working toward with
23 their U.K. Copyright Hub, and we're very fortunate this
24 morning to have Caroline Boyd from the U.K. Copyright Hub
25 here, who is probably, I would guess, going to become a

1 very popular person in these parts over the next several
2 months. And hopefully she'll be able to share some of
3 the learnings from the effort in the U.K.

4 Our final panel will focus on ideas for
5 creating more efficient transparent marketplaces by
6 leveraging the information in registries and leveraging
7 the standardized metadata and identification of works, as
8 well as some new technology such as blockchain or what's
9 generically referred to as distributed ledgers. And
10 there is an interesting debate around whether those
11 registries are best managed, maintained by government
12 agencies such as a republic agency, such as Copyright
13 Office, or could proprietary registries have a role in
14 what ought to be the relationship between those --
15 between those two.

16 So later, as was mentioned, we will have a sort
17 of lightning round series of presentations from some
18 entrepreneurs, developers who are here regarding some of
19 the initiatives that they're working on. And then we'll
20 go into the breakout sessions.

21 So that's the sort of rough architecture of
22 what we'll be talking about today. And with that, I
23 guess I turn it over to Paul Jessop, a man who has made a
24 career out of putting numbers on things. Paul's from
25 County Analytics and is involved in just about every

1 significant metadata and ID initiative in this space.

2 And he'll be moderating our first panel.

3 So, Paul, please come up.

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1 MORNING PANEL SESSION 1

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Unique Identifiers and Metadata: How is a work unambiguously identified and distinguished from other works; and how are attributes assigned to that work in a consistent manner?

MR. JESSOP: I tell my mother that the U.S. government has invited me to come to Washington. I don't say, "I put numbers on things."

So good morning, everybody. I'm Paul Jessop. I'll introduce the panel. I'm not going to give any detailed biographies. Those are the in the pack that's been distributed, I assume, electronically.

On my left, George Howard from Berklee; Mark Isherwood from RightsCom; Giridhar Manepalli from the Corporation for National Research Initiatives, which is a mouthful; Stuart Myles from the Associated Press; and Carlyn Staudt from National Geographic.

I'll let them say a little about themselves as we go, but not too much, because time is relatively short, and it's what they say rather than who they work for that I think we're interested in. I need to clarify that anything I say today is my view, not the view of anybody I have as a client. Many of the things I say

1 they won't agree with. That's why they hire me.

2 This is a, as was said earlier, a followup
3 session. There were earlier seminars on this subject.
4 Other panels will deal with all the cool stuff like
5 licensing and terms, while we're just going to deal with
6 the nuts and bolts of identification and metadata. And
7 it's been said, if you can't specify what you own, you
8 can't deal in it. And I'd add probably, well, you can't
9 deal in it certainly with any precision or safety.

10 I'm going to just go through a couple of
11 definitional terms which the panel are very welcome to
12 argue with, but they've served me well, and I would
13 encourage their use. But other people may find a
14 different mapping of terms or indeed say they're
15 completely inappropriate in their field of activity.

16 So identification to me is the association of
17 something with a token that stands in its place. This
18 came home to me this morning as I jumped on the Metro
19 from my very modest hotel and got onto the Metro at a
20 station called Mount Vernon Square 6th Street Convention
21 Center. And I'd compare that with the French approach to
22 naming their metro stations, where they have names like
23 Republique or Robespierre, clearly a token rather than a
24 functional description of what that station will do for
25 you.

1 Moving on, binding. Binding is to me the
2 process by -- it's the mechanism which identification
3 works. It's how you associate the thing you're
4 identifying, if you call it a reference -- sorry,
5 technical term -- with its code.

6 A registry, this is a word that's been bandied
7 around a lot. And to me, a registry is just about
8 identification. It's just about that binding of the
9 identifiers with the things. If you move on to a rights
10 registry, that might add information about who owns
11 things, in what territory and what terms they're
12 available on.

13 And then you've got all the other cool stuff,
14 how many beats a minute, whether it's popular, whether it
15 was cited on last night's news. That's kind of, I think,
16 for these purposes out of scope. I'd refer to that as
17 discovery data, how you can uncover it.

18 Those names, I say, are up for grabs. And what
19 I'd ask the panel initially, and I won't necessarily go
20 along in linear order, is what their experience has been
21 applying these sorts of principles to the fields of
22 endeavor that they've been working in. And I'm going to
23 start with Mark Isherwood, just because we've shared some
24 of these experiences, and you may want to kick off with
25 your background in doing these sorts of things in the

1 areas you've been working in.

2 MR. ISHERWOOD: Okay, thank you. Good morning,
3 everybody. Although Paul attributed me as RightsCom, I'm
4 actually here representing one of our clients, Digital
5 Data Exchange, or DDEX, which hopefully many of you are
6 aware of. DDEX is a standards organization focused
7 pretty much entirely on the music industry, and we
8 develop standard message formats for communicating data
9 up and down the mainly digital supply chain, not
10 exclusively.

11 So DDEX doesn't really do identification in the
12 sense that we're managing a token as Paul called it. We
13 are able to carry that information and actually encourage
14 people who use our standards to do that, but we find
15 through implementation of the messaging formats just how
16 -- what's the word -- problematic some of the standard
17 identification systems are. What happens when you
18 standardize the format you communicate is that the
19 quality of the data really start -- or the lack of
20 quality of the data really starts to shine through.

21 And, so, we do work mainly informally with
22 other standards bodies relative -- of the standards
23 bodies relative to DDEX like IFPI for the ISRC and SESAC
24 for ISWC, but -- and this is my personal view, not
25 DDEX's, some of those bonds need to be a lot more formal

1 in the sense -- and structured so that there is actually
2 a common way of moving forward amongst all of the
3 standards relevant to a particular media sector and,
4 secondly and very much a secondary activity, similar
5 across standards organization interactions across media
6 types because the recipients, basically the retailers,
7 would like to see everything, regardless of which media
8 industry it comes from, is being managed in roughly the
9 same way.

10 Now, we don't even have the first bit in place
11 really within the music industry, so actually spreading
12 that out to cross-media is, I'm afraid, you know, another
13 step further on. So I hope that gives an indication of
14 what DDEX does and where I'm coming from in terms of this
15 panel.

16 MR. JESSOP: Thanks, Mark.

17 George, you're coming for a slightly different
18 perspective on music from -- through your Open Music
19 Initiative you're involved in. Can you talk about how
20 these issues affect that?

21 MR. HOWARD: Sure, yes. I'm here representing
22 Open Music Initiative, which is a nonpartisan entity that
23 grew out of Berklee's Institute for Creative
24 Entrepreneurship and is sort of a growing consortium of
25 both academic institutions, as well as on the academic

1 side -- Harvard, MIT, and Berklee -- as well as
2 entrepreneurs from sort of startup stage all the way up
3 through established companies like Netflix, all of the
4 major labels. And very much working to be -- and the
5 term I'm using -- and again, it's always hard as we're
6 defining these, and I don't know that I'm necessarily
7 speaking for OMI, but I kind of am -- a coordinating
8 agent.

9 In other words, we're not going to build
10 anything ourselves. We are interested in precisely what
11 the buzz word I'm sure of what -- of the day will be,
12 this notion of interoperability. We want to provide
13 guardrails, guidance, so that people will be able to
14 build more effectively as we move forward.

15 My life has been defined as sort of tilting at
16 a windmill of trying to help artists create sustainable
17 careers on their own terms. And, so, the junction of OMI
18 in that gesture and what that manifests in my life is,
19 you know, running record companies or cofounding entities
20 like TuneCore, is really one of seeing us go from eras of
21 unstructured data to structured data, right?

22 And I think if we look around and see that --
23 and increasingly I think it's important to be looking to
24 adjacencies. I think the music business has been
25 historically bad at looking at adjacencies, so I think

1 it's great to convene groups of people that have
2 different experiences. But if we think about the sort of
3 movement from unstructured data to structured data or
4 maybe better said from modeling to measuring, from eras
5 of when you'd have your electric bill read twice a year
6 and then the rest of the year was just an extrapolation
7 to, no, I know exactly how much energy you're using every
8 second. To get there, to get to a precise sort of
9 measuring rather than modeling, to take all the data,
10 whether it's to map a genome or to map a song, requires
11 interoperability.

12 My personal thesis, and I think what we're
13 trying to balance on the OMI side of things, is, sure,
14 there has to be an academic side where you're thinking
15 about standards and APIs, but I think we've proven,
16 arguably, that unless you have transactions, unless you
17 have commerce, you'll never get to standards, right?
18 Transactions lead to standards, not the other way around.

19 And I would argue that the failings of other
20 types of entities around this -- these types of
21 objectives have failed because they've tried to define
22 the standards first and then say now let's go transact
23 around them. I think you have to have a strawman out
24 there, some guardrails, get transactions going, and then
25 people in the market ultimately decide what the standards

1 will be. And, so, that's the balance that we're trying
2 to strike at OMI.

3 MR. JESSOP I think that's interesting. I
4 think Mark would probably agree that DDEX succeeded
5 because it superceded a series of Excel spreadsheets,
6 sealing wax string, and Scotch tape, which was not very
7 effective for those concerned.

8 I'd like to move to National Geographic now
9 because I went to an interesting meeting earlier this
10 year. They were trying to give numbers to marine
11 animals, what we call the internet of oysters. It didn't
12 really turn out that way. I guess you're less concerned
13 with identifying the animals than the representations of
14 them. So do you have some experiences in the area?

15 MS. STAUDT: Sure. I come from the business
16 side of National Geographic, so I've been there for about
17 20 years. I've produced programs; I've programmed
18 programs on the channel; and now I am in charge of
19 monetizing our video content across the globe. I really
20 became interested in this subject matter. Again, I'm not
21 from a technical background. When I'm trying to move our
22 assets across the world quickly and be able to monetize
23 them effectively, and I realize that our lack of
24 structure in the way that we identify these assets was
25 really, really -- I was struggling with it.

1 Just recently, we were acquired, or entered
2 into a joint venture, with 21st Century Fox. And, so,
3 I've also been involved with taking our assets and
4 incorporating them into robust systems that 21st Century
5 Fox has in place and realizing how in a lot of ways our
6 systems had been inadequate and that what they were
7 offering as systems that gave unique identifiers to
8 titles could really kickstart and supercharge our ability
9 to monetize.

10 And that's really how I started to become
11 interested in this topic and how crucially and vitally
12 important I think it is for our business, especially
13 being a global business, that we really take this
14 seriously and invest resources behind it.

15 MR. JESSOP: Cool. Thanks much.

16 Giridhar, you've been involved in audiovisual
17 as well, but also in a way that works across fields. Can
18 you say something about that?

19 MR. MANEPALLI: Sure. I am primarily here
20 because Don Dulchinos, the executive director of
21 Entertainment ID Registry, the association has asked me
22 to proxy for him. And we at CNRI have actually helped
23 the founders of the Entertainment ID Registry Association
24 put together the EIDR registry in the first place and
25 while at CNRI we focus a great deal about information

1 management in an efficient way and in a secure way with
2 the help of several architectural principles that we
3 clipped together and call them as digital object
4 architecture. I am primarily here to represent the
5 entertainment ID registry focus of identifying these
6 entertainment and movie assets.

7 One thing that the EIDR registry has done in
8 particular is to minimize the amount of information that
9 it actually captures and associates with any identifier
10 and left the value-added services out of it. So in many
11 ways, you can think of the EIDR registry as an idiot
12 savant who knows a little bit about these various assets
13 but that could be later on used by several services
14 downstream.

15 Later on during this panel discussion I hope I
16 can get into the details of what exactly is being
17 identified and what metadata is being captured and the
18 business and the social reasons for it.

19 MR. JESSOP: Thank you.

20 And, Stuart, the world of news and information
21 has been kind of salient lately as people wonder about
22 its validity. Does identifying help us with that, and
23 does it help your businesses?

24 MR. MYLES: I'd like to think that news is
25 always salient, but --

1 MR. JESSOP: But only when it's true.

2 MR. MYLES: So, yes, so I'm Stuart Myles, the
3 Director of Information Management at the Associated
4 Press. So I deal with all kinds of metadata for all of
5 the news that we publish or distribute and aggregate and
6 so on. So that's a couple hundred thousand texts or
7 photo or video items a day. And we have a archive of
8 sort of 300 million items that we sell to people.
9 Basically, the AP has been a B-to-B publisher since the
10 1800s.

11 So one of the things that we want to do is --
12 well, there's a couple changes going on in the industry
13 that really drive our need for rights. One is that it's
14 traditionally been a very manual process where people are
15 exchanging news between newspapers or websites and radio
16 stations and so on, and an editor looks at every single
17 one so they can read the rights statement and so on.
18 That's less and less true.

19 And the other thing that's going on really on
20 the business side is that we're trying to create new
21 businesses. So we want a new kind of ad hoc ways of
22 selling the news and selling our photos and selling our
23 video and so on.

24 So we got into the right side of things, and
25 for me, it was a -- in terms of identifiers, it was a

1 series of surprises. So things that I would be simple
2 and straightforward turned out to not be so. I thought,
3 like, okay, let's start off with something simple like
4 how do we identify a photo. Okay, we've been doing that,
5 you know, for a hundred years; it should be
6 straightforward.

7 It turns out it isn't for a few different
8 reasons. One is that everybody wants their own
9 identifier for different reasons. So, you know, the
10 computer geeks will manufacture a long, opaque GUID
11 that's great for computers, but that's horrible for photo
12 editors. They want to use what they call the slug, which
13 actually dates back to hot lead and the print newspaper
14 days. Or a friendly key, which is sort of a short,
15 mnemonic thing and so on and so forth.

16 So, like, okay, we can't really agree on how
17 we're going to identify things, but maybe we can map them
18 all together. All right, that sort of works, but then
19 what is a photo? Is it the preview version, the main,
20 the thumbnail, all of these different things. The same
21 sort of thing for videos, except it's even worse because
22 you've got aggregates of things. So does the video
23 include the text, the script that goes along with it?
24 What about the individual slices and so on?

25 So even just -- things turn out to not be

1 things, atomic things. They turn out to be molecules.
2 They're aggregates of different pieces of information all
3 aggregated together, and then you think about
4 translations and so on. It turns out to be incredibly
5 complicated.

6 So, like, okay, maybe we can talk about the
7 contracts. Like, well -- because we want to digitize
8 those, obviously. So we'll say, like, well, let's look
9 at them, presuming they're all digitized. Let's dig them
10 out of the filing cabinet and maybe we can type them in.
11 And, unfortunately, we don't have contracts written down
12 often. They're often just handshakes, inviting different
13 agencies, you know, sort of we'll send you some of our
14 news; you send us some of ours and it will all be fine.
15 Okay, and so on.

16 So -- and even how do you describe things, how
17 do you manage things across versions. So, yes, so things
18 that I thought were quite simple each as you sort of peel
19 back the layers, these things turned out to be very, very
20 complicated. And it's not that people don't want to make
21 things work; it's just that -- it's just that we're
22 encountering tradition, the way work flows currently
23 work, the way people want it to work. You can try and
24 impose things -- solutions that make sense for, let's
25 say, machines, but if they don't work for the people who

1 need to work with that content or make money off it, then
2 it's going to be very much an uphill battle.

3 MR. JESSOP: And so say all of us.

4 So what -- I'd like to just go down the panel.
5 What entities is it? I mean, bearing in mind we're here
6 talking about the licensing and/or managing of
7 copyrighted works. Which sorts of works do we need to
8 worry about most? Where's the leverage, and what can we
9 probably leave to phase two?

10 George, where would you start?

11 MR. HOWARD: No, I mean, this is amazing,
12 right? And this is what I mean about sort of adjacencies
13 or collisions or whatever. I mean, we're in this era of
14 terrible echo chambers where we just feed our information
15 that we want to hear back at ourselves. So hearing
16 Stuart describe this, you know, most of my work is
17 sitting around with other music people, right? So you
18 say that -- your description, and I'm writing them down,
19 that's the music business, right? And I've always said,
20 the music business is a canary in a coal mine, right?
21 And as goes the music business, so goes other businesses,
22 almost axiomatically or maybe at the same time.

23 So where I always -- I mean, and your phrase,
24 like, we want this to work. It's sort of -- it's sort of
25 a crime looking for a villain. So I did a project with

1 National Public Radio where NPR had said, okay, in a
2 post-Serial, the podcast world, we want everything to be
3 a podcast, of course, because that worked once and,
4 therefore, it will, you know, always work, right? And,
5 so, let's make everything a podcast. So they took their
6 over-the-air ephemeral broadcasting and said, well, let's
7 make it downloadable. No, because you don't have the
8 music rights for that, right?

9 So they call me in, what do we do, George? I
10 said, well, you're [expletive], right? And you are --

11 MR. JESSOP: You are allowed to say that.

12 MR. HOWARD: Well, I looked around. I don't
13 know who I was looking for, my mom or something, right?
14 And, Mom, I told you to wait in the car.

15 And, so, well, what do we do? And I said,
16 well, the problem here is there's this crime without a
17 villain, right? I mean, the artists certainly want this
18 to work; the labels don't really have any issue with
19 this. There's just not a system to do it.

20 So we did actually stand up -- this word will
21 get tossed out and some people will get mad at me for
22 saying; others will love it. We did stand up a
23 blockchain for them and allowed for sort of at least line
24 of sight around what are the necessary rights and how can
25 it interoperate and all of those things.

1 Where I go, to your point, is you were sort of
2 asking -- I forget the precise way you worded the
3 question, but it was like what type of rights or what --
4 I mean --

5 MR. JESSOP: What entities.

6 MR. HOWARD: Well, but, so, I think that we're
7 in a sort of a post-entity era, right? Your atomization
8 of stuff, right, an internet of things, all of these
9 things, it's just ones and zeros. The music industry
10 kind of fell apart, not because of piracy but because it
11 switched from analog to digital, which meant it became
12 information, and people just wanted to diffuse
13 information.

14 So the same exact problems or challenges or
15 opportunities you're having -- and, by the way, where are
16 you from -- National Geographic -- that's what we are
17 facing, right? Arguably slightly more complex because of
18 music copyright is typically going to have two rights
19 holders because there are two copyrights associated with
20 each work, but who cares?

21 So at the end of the day, where I always go
22 down -- back to is you create a work and arguably through
23 most industrialized countries, because of Berne and other
24 treaties, it's going to be governed roughly the same way
25 around the edges, and you get a bundle of exclusive

1 rights. If you start from there and then look at how
2 those works are used, and this is where I go back to
3 transactions lead to registration, you can then track
4 back whether it's a photo, whether it's a piece of news,
5 whether -- you have essentially the same bundle of
6 rights.

7 So I'm hugely indifferent but also hugely
8 excited that the conversations with music people and news
9 people, et cetera, can now confront the same problems
10 because they are precisely the same problems. And the
11 music business has a terrible habit of sort of
12 verticalizing and saying, well, no, this is just us; we
13 must call NASA to figure these problems out. That's not
14 the case. So start with the bundle of rights.

15 MR. JESSOP: I agree. I mean, I call this
16 music industry exceptionalism.

17 MR. HOWARD: That's great. I'm stealing that.

18 MR. JESSOP: The music industry says we're
19 different.

20 MR. HOWARD: We're different.

21 MR. JESSOP: You have to understand, we're
22 different.

23 MR. HOWARD: No.

24 MR. JESSOP: No, they're the same. But that
25 said, the entities, and I'm going to argue with you here.

1 MR. HOWARD: Do it.

2 MR. JESSOP: The entities in there are
3 different because, you know, who cares if it's a work or
4 a recording? Actually, the songwriter cares.

5 MR. HOWARD: No, but no more than -- no more
6 than the photographer.

7 MR. JESSOP: Well, that's right because you've
8 got the same --

9 MR. HOWARD: Or the writer.

10 MR. JESSOP: -- the same stratification of
11 rights in photography as in movies as in music as in
12 everything else. You start with something and build upon
13 it.

14 MR. HOWARD: But, so, then, who cares to be --
15 to answer your question is the creator. Whether you're a
16 creator or the rights holder, however you want to define
17 it, whether I'm a creator or a rights holder of a
18 photograph, of a piece of authorship, what -- musicians
19 don't care more than photographers.

20 MR. JESSOP: Absolutely they don't. But if --
21 sorry, I am going to come back to you in a moment. But
22 if you're creating a recording, then the class of data
23 you associate it with includes things like performers,
24 instruments, places, recording quality, all sorts of
25 things.

1 MR. HOWARD: Maybe --

2 MR. JESSOP: If you're a songwriter, those
3 things don't apply. You've got a different class of
4 information you need to associate with that.

5 MR. HOWARD: Completely disagree. That is
6 something --

7 MR. JESSOP: So how do you -- how do you assign
8 --

9 MR. HOWARD: That's something --

10 MR. JESSOP: -- Lucille to a piece of sheet
11 music? It's absurd.

12 MR. HOWARD: It's not absurd. I mean, it's
13 exactly what he's going through. He's saying they're
14 taking old, crusty artifacts and trying to register them
15 in some digital way. Lucille, by whomever --

16 MR. JESSOP: Lucille is B.B. King's guitar.

17 MR. HOWARD: Oh.

18 MR. JESSOP: It's a particular instance of a
19 particular resonating guitar, and you're telling me it
20 can be associated with a piece of sheet music?

21 MR. HOWARD: Of course you can -- no, no, a
22 piece of sheet music?

23 MR. JESSOP: Yeah.

24 MR. HOWARD: I don't -- I don't understand the
25 premise.

1 MR. JESSOP: Well, the musical -- the musical
2 work isn't associated with the instrument that's used to
3 record it.

4 MR. HOWARD: It could be.

5 MR. JESSOP: The instrument is associated with
6 a recording that's made of the work.

7 MR. HOWARD: I drive into my driveway and my
8 little dongle on my keychain talks to my Nest thermostat
9 and increases the lights and talks to my Sonos to play
10 B.B. King. Those are all interoperable little pieces of
11 atomized information talking to each other. If you think
12 that we're not going to start atomizing this and
13 structuring those things on a blockchain so that we can
14 track -- there will be a time in the not-so-distant
15 future when the next time some jackass launches an IED
16 we'll be able to take each component part of that and
17 track it back to source, 100 percent.

18 MR. JESSOP: So I've been -- Mark, I know you
19 want to say it, but I'll come back to you in a moment.

20 MS. STAUDT: I mean, I'm just going to take a
21 step back and take a different approach to your question.
22 From a business perspective, National Geographic is an
23 organization that has print, photos, video; we have music
24 assets as well. I look at it from a business level and
25 what I can monetize the most quickly and the most

1 effectively and make the most money with. And for us,
2 video is becoming more increasing of importance.

3 If you look at a lot of the data that we're
4 seeing on mobile consumption, video usage is going up
5 tremendously. So just from a business perspective and
6 looking at the portfolio of assets that I own, video is
7 becoming increasingly important.

8 MR. JESSOP: Mark.

9 MR. ISHERWOOD: Well, so, I will try to answer
10 your question about identification. Some of you will
11 know a project called the INDECS Project, which came up
12 with the line that people do deals about things. And
13 what you need to do in terms of identification is
14 identify the people, identify the deals, and identify the
15 things. And in each case, those may not be single
16 entities; they may be very complex conglomerations of
17 people. So it's not just the artist; it's the third
18 trombone player or whatever it happens to be.

19 And what that's highlighting is a phrase for
20 which I have to put \$10 in the swear box, which is
21 functional granularity. If you need to know it, you need
22 to know it. If you need to identify it, you need to
23 identify it. And that's a discussion that you have to
24 have amongst yourselves. And that comes back to Stuart's
25 point about complexity, and I think it's quite an

1 important friction that exists.

2 Last week in London, I was at a DDEX meeting
3 where we took probably two hours to determine what we all
4 meant by "featured artist." If you had been a member of
5 the general public sitting in there, you'd have been
6 going, what the hell are these people talking about. But
7 what that was was a function of granularity conversation,
8 is we need to have a common understanding of what we mean
9 by "featured artist" so when our machines talk to each
10 other they know that too.

11 And it is complex. And the friction -- and
12 this may sound like a criticism, Carlyn, and it's not
13 meant to be, but a friction is then between those ops and
14 IT people who are trying to solve these operational
15 problems and the businesspeople who just want to do it.
16 They want to get it out there; they want to get their
17 dollars coming in; and then they turn to the ops and IT
18 people and say, well, why is it such a big problem.
19 Well, it's because, you know, we have to do functional
20 granularity. If you want us to identify it and to be
21 paid on it, then we've got to figure out a way of doing
22 it. And --

23 MS. STAUDT: I completely agree with you, Mark.
24 And, actually, that's why I'm here --

25 MR. ISHERWOOD: Yeah.

1 MS. STAUDT: -- because I've become one of
2 those businesspeople who actually is starting to get
3 interested in this area --

4 MR. ISHERWOOD: Yeah.

5 MS. STAUDT: -- because if I pay attention to
6 it, then you can help me more with it.

7 MR. ISHERWOOD: Yeah, yeah. So I think, you
8 know, those are the two points I wanted to -- those are
9 the core things you need to identify, people deal in
10 things, and we have to recognize the inherent conflict
11 between business and ops and IT around this because this
12 is complex stuff. It's not easy, and it takes time.
13 And, so, we just have to be aware that not all
14 corporations internally are going to be pulling in the
15 same direction on some of this stuff.

16 MR. JESSOP: Okay, so I want to just take 30
17 seconds to do the tutorial piece on functional
18 granularity because it's important.

19 Yeah, 2000, the document was written, the
20 Indecs Report. It's not out of date. It was written in
21 a technology-independent way, and it's still salient. And
22 if you haven't got a copy pinned to the wall above your
23 bed, you should have. Functional granularity says that
24 if for some purpose you need to distinguish between two
25 things, you need to give them different identifiers. And

1 that's so obvious, but so much time has been wasted in
2 these industries by not getting that bit right that it's
3 extraordinary. And, so, if you need to distinguish
4 between things for some purpose, you need to give them
5 different identifiers.

6 For some purposes, my car and your car are the
7 same. If you want to buy a new alternator, they're the
8 same car because they've got the same alternator in them.
9 But when you go through a speed trap and a photo camera,
10 you want to make sure that they're differentiated so you
11 get the speeding ticket to the right person.

12 Giridhar, can you talk about the relevant
13 entities in the EIDR system and what it is you identify
14 and how that helps and what you wish you did, what you
15 wish you hadn't done?

16 MR. MANEPALLI: Right, so, George talked about
17 -- start with the bundle of licenses or bundle of --

18 MR. HOWARD: Oh, bundle of rights that you're
19 ascribed by law, yeah.

20 MR. MANEPALLI: Right. But when you're talking
21 about those rights, you need to clearly know what you're
22 actually talking about in terms of the actual assets. So
23 from a consumer standpoint, let's say that I am watching
24 the movie *Top Gun* on my TV. And let's say ten days later
25 I watch the same movie using Netflix on my computer. To

1 me as a consumer, they both look one and the same.

2 When I talk about it with my friends and chat
3 about it, I say, well, I watched the same movie twice
4 because I loved it so much. But in reality, when you're
5 talking about rights, you need to understand that the
6 movie that I actually watched on TV is a different
7 sequence of bits compared to the sequence of bits that I
8 actually watched when I was watching on Netflix.

9 And when you're talking about rights, you
10 clearly need to identify that there are different kinds
11 of rights associated with two different manifestations of
12 the same movie. So one thing that we have done in the
13 EIDR registry is identify granularly these various
14 manifestations of this abstract work. For doing that,
15 what we have done is that we register the abstract work
16 itself, which we call as title objects, and we allot a
17 unique and resolvable identifier to that, and we then
18 build a graph.

19 If there are multiple edits because one is
20 meant to be played in just airplanes, one is meant to be
21 played on Netflix, then we actually create multiple edits
22 and identify each of those uniquely, and then even extend
23 that further to capture the different technical
24 variations of it. Like if you have a different language
25 subtitle to it, then we identify that, because all of

1 these -- identifying all of these separately actually is
2 critical in terms of managing the entire ecosystem
3 throughout the distribution pipeline.

4 Not just from the licensing standpoint, but if
5 you imagine when a movie is being produced, several
6 different organizations come together, not only at the
7 production -- in the production phase, but also in the
8 post-production and distribution phase. And different
9 people have different rights and authority over the
10 assets that they are creating. So you need to precisely
11 identify what those are. And that's one thing that I
12 think EIDR registry has done well, which is why we are
13 seeing the use -- the extensive use of the registry in
14 the last couple of years.

15 MR. JESSOP: So just to be clear, you've got
16 abstract entities, which would be *Top Gun*, the movie; and
17 then you've got identifiers for things which are
18 specializations of that, which are particular prints,
19 particular versions, particular edits, particular
20 soundtracks.

21 MR. MANEPALLI: That's right. And different
22 kinds of metadata is actually associated with different
23 assets at different levels.

24 MR. JESSOP: Right.

25 MR. MANEPALLI: To uniquely identify what we

1 are talking about.

2 MR. JESSOP: Stuart, what about your world?

3 MR. MYLES: So I think I'd pick on two kinds of
4 identifiers. One is really driven by our business as
5 well, so there's an insatiable desire for video. You
6 know, I mentioned we do a couple hundred thousand items a
7 day, which is mainly text and photos. We only do maybe
8 100 videos a day, so not nearly enough for what our
9 customers would love to consume. There's just no end.
10 And really our customers are not necessarily the news
11 industry anymore. It's, you know, all kinds of people.
12 We're happy to sell to almost anybody, our content as
13 well.

14 So really identifying videos and the complexity
15 comes in exactly the kinds of things that we've been
16 talking about, about like, you know, are these two
17 different cuts of the same video the same, yes and no and
18 so on. But actually the identifier -- the kind of
19 identifier that I -- I think everybody else in the news
20 industry, or that is needs, and if anybody here has
21 thought this, please let me know, it's identifying the
22 organizations or the people or -- so most of the rights
23 that the news industry deals with are restrictions.

24 So let's say Yahoo News out, how do you
25 identify that? So that's not Yahoo; that's a part --

1 that's a department within Yahoo, which may or may not
2 exist across reorganizations and so on. Editors looking
3 at that typically understand what that means, hopefully,
4 but how do you do that in a machine-readable way? How do
5 you do it in a way that cuts across different
6 organizations in a way that's scalable, not necessarily
7 owned by one company and so on. So please, whoever has
8 solved that, let me know.

9 MR. JESSOP: Super interesting. We didn't plan
10 this. While I didn't ask for that, so that was the segue
11 into the next, where do we need to identify parties,
12 people, organizations? I spend a goodly proportion of my
13 life worrying about this than trying to do it. I'm just
14 conscious what it says on the screen here, we're about
15 the digital marketplace, and we've got parties of
16 different characters. We've got end customers who are
17 doing the licensing, and then we've got participants in
18 the things we're identifying or things we're trading,
19 which who are due some kind of recompense, some
20 compensation.

21 Do people on the panel have a -- I mean, we've
22 heard from AP. What about the needs for identifying
23 parties in their systems? Mark, Start.

24 MR. ISHERWOOD: Well, I mean, one of -- in a
25 way, this is a function of granularity thing. I mean,

1 within DDEX, we have -- we have representatives from
2 right across the supply chain, so at the sort of musical
3 work end, we've got rights societies and publishers,
4 record labels, aggregators, DSPs and so on, so it runs
5 right across.

6 And for each of those sort of sectors, they
7 need to know different things. So referring back to the
8 interesting meeting last week about what "featured
9 artist" meant, that was primarily a group of people like
10 SoundExchange here and PPL in the U.K. who need to know a
11 bunch of information that the labels who own them
12 themselves don't really need to know past a point because
13 in most territories nonfeatured artists, session
14 musicians, whatever you want to call them, get some sort
15 of remuneration for secondary uses of the sound recording
16 --

17 MR. JESSOP: It's worth saying, there's a
18 statute that says they're due that.

19 MR. ISHERWOOD: Yeah, yeah.

20 MR. JESSOP: It's not just been dreamt up.
21 There's a law that says that.

22 MR. ISHERWOOD: No, no, no, sure.

23 MR. JESSOP: Or actually it wasn't until
24 somebody got it signed into law.

25 MR. ISHERWOOD: And it's sort of slightly

1 different in different territories, but obviously it's a
2 big part of what SoundExchange does. And if you talk to
3 SoundExchange, one of their biggest problems is actually
4 identifying these people because these recordings took
5 place in a studio in the middle of nowhere in 1970.
6 Everybody was stoned out of their head, and they can't
7 remember who was playing whatever. And yet they're due
8 money.

9 So, you know, and that's a different view from
10 the music rights society. So you don't care two hoots
11 about the artists unless they happen to be creators and
12 writers of the song. And, so, you have to be -- you have
13 to be aware that it's different things for different
14 people. And it depends where you're sitting in the
15 supply chain.

16 If you're looking at it in the whole, you need
17 to identify anybody who has a role to play, who has done
18 a deal of some sort, however innocuous, who is likely to
19 receive money. Money, though, is not necessarily the
20 sole driver. If you're involved in archiving in a record
21 company, then you want to know the complete lineup of
22 people, including people who are not necessarily due
23 royalties as a consequence of what I was just talking
24 about.

25 So, again, archiving looks at the world from a

1 completely different place. Some of those will want to
2 know, you know, which digital audio workstation was being
3 used, how many microphones there were, which one -- what
4 -- well, you know, what type they were, you know, what
5 the sound levels were. It just depends on where you want
6 to be and where you are in the supply chain.

7 MR. JESSOP: So let's stay focused on the
8 marketplace issues. George, you were shaking your head
9 at some of that.

10 MR. HOWARD: Yeah, well, no, I mean, partly in
11 agreement and partly in disagreement, which is good, but
12 I'm glad you brought up SoundExchange. I mean, I think
13 objectively we can say that SoundExchange has been
14 successful just from a year-over-year growth in terms of
15 collection and distribution, right? It's a staggering
16 thing.

17 I would say that unequivocally the reason it's
18 been successful is because in order for creators or
19 rights holders or performers -- somebody mentioned the
20 third trombone player -- how do we find them? Well, if
21 you're a third trombone player and some other third
22 trombone player says, hey, man, if you ascribe -- if you
23 put in your rights to SoundExchange, you will get money,
24 then that other third trombone player says, well, I'm
25 going to go get me some of that. And that's what's going

1 on.

2 That's why SoundExchange -- SoundExchange says
3 "we got the money; we have a statutory mandate to collect
4 this money; we can't give it to you unless you prove
5 authenticity and the right, and then we'll give it to
6 you." And that has been shown objectively to work, that
7 more people are saying this is my right. So it's just
8 pure-ass incentive.

9 The through line of this -- and, Mark, to your
10 point about, well, money's not the driver; it could be
11 archival purposes -- I will say if these archivists don't
12 figure out a way to monetize it, they're going to go
13 away. And that's a sad thing for the world, but that is
14 the truth.

15 And the through line of all of this
16 conversation so far is we -- National Geographic; we,
17 Associated Press -- for the life of me I don't know what
18 you're doing -- but we -- we want to have more business
19 opportunities with our heretofore locked assets. We want
20 to unlock those assets in a commercialized way. And I
21 say to you, unlock them and find the rights holders. If
22 you can't find the rights holders, once it rises to a
23 level where there's actual value, those rights holders
24 will find you. They will sue you. You will then either
25 come to terms or you will not, and transactions will lead

1 to registration and deals.

2 It's ludicrous to think that we're going to sit
3 here and think how we're going to use these disparate
4 rights in new ways. I have this idea for a VR game,
5 whatever, where it will be called "Don't Fear the
6 Reaper." And it will be -- you put the headphones on and
7 the "more cowbell" song comes on, and it's me on a horse
8 with a reaper behind me.

9 What's that? Is it a derivative? Is it a
10 public performance? Is it display? Is it reproduction
11 distribution? It's all of them. We have those rights.
12 We have that codified. I would have to go get those and
13 use it. And those rights holders would either get paid
14 or they would sue me.

15 MS. STAUDT: I think it also gets even more
16 important when you start creating derivative works from
17 the original work. So to your point, if you do a VR
18 piece or we put together a compilation of something, even
19 carrying that rights owner one step further into the
20 creation of a new work, and works are being created and
21 compiled in --

22 MR. HOWARD: We know this.

23 MS. STAUDT: -- volume.

24 MR. HOWARD: For the music business.

25 MS. STAUDT: Yeah. And it's just -- that's

1 also key, and that identification up front is key.

2 MR. HOWARD: It won't happen up front. How can
3 you anticipate what the kid in the bedroom is going to do
4 with a Queen song and a drumbeat from Miles Davis? You
5 know, you can't anticipate that.

6 MR. MANEPALLI: But you know about their
7 existence when they were created, so if you incentivize
8 the entire participation with this ecosystem to actually
9 --

10 MR. HOWARD: How?

11 MR. MANEPALLI: -- allot -- if you incentivize
12 them --

13 MR. HOWARD: How?

14 MR. MANEPALLI: The question is not about how
15 at this point; the question is whether or not we can
16 actually move towards that goal. And -- but anyway, if
17 you incentivize those people to actually allot these
18 identifiers at the time of creation --

19 MR. HOWARD: I'll answer my own question. You
20 incentivize them with the potential of making money or
21 generating awareness for their work.

22 MR. MANEPALLI: Or if there is no overhead in
23 creating those identifiers, then they might as well
24 create those identifiers.

25 MR. HOWARD: No.

1 MR. MANEPALLI: Which is exactly --

2 MR. HOWARD: You don't know artists. They will
3 not do that.

4 MR. MANEPALLI: Which is exactly what is
5 happening in the data set community, so we can take that
6 as a precedence and we can work towards it.

7 MR. JESSOP: I think actually George comes to a
8 very interesting point, is how you incentivize the people
9 and how they get the tools into their hands that do these
10 things for them. And this -- it's been very clear in one
11 of these aspects that asking artists to do stuff -- in
12 fact, asking publishers to do stuff, which is kind of a
13 bit peripheral, is a guaranteed recipe for it not
14 happening.

15 MR. HOWARD: Yeah.

16 MR. JESSOP: So there's a standard called ISTC
17 for standard text code. It is more moribund because it
18 relied upon publishers to register basically manuscripts
19 when they came through the door and got accepted. And
20 there was no clear reason for them to do it. Because
21 they haven't done it, there's a whole bunch of really
22 cool downstream stuff that isn't happening, but there
23 wasn't a clear link. There wasn't a motivation between
24 the action and the consequences downstream. Making
25 things -- not transparent, but making things automatic so

1 that a creator doesn't need to think about it, it just
2 happens, is a much surer path to success, I think.

3 Mark?

4 MR. ISHERWOOD: Yeah, but, I mean, the point I
5 wanted to make is I kind of partly agree with George and
6 partly not. But, I mean, so far, we've largely been
7 talking about what I call established business,
8 established, in my case, music industry. The thing is
9 we've now got a huge chunk of creators who are not in
10 that -- they're nowhere near part of that established
11 environment. And to say to them you need to get an ISRC
12 for your recording is utterly pointless because they --
13 either they don't care or, you know, you know, they just
14 won't listen.

15 And I think there are issues there about how
16 the systems -- however good or bad they may be -- are
17 available in a way that you described, Paul, because I
18 think it doesn't mean that we're excluding that kind of
19 part of the industry from the internet itself because
20 they can still find money, but they won't be part of this
21 kind of standardized identification infrastructure. And
22 that is going to become more and more of an issue as time
23 goes by.

24 MR. JESSOP: So that brings us to a point, and
25 I wanted to take this conversation, who does the

1 registration. And that sort of is a great segue in a
2 sense because I'm suggesting that if you're a bedroom
3 deejay then it's the application that you're deejaying on
4 that should do the identification, that -- when you say,
5 yep, that's done, I finished that, send it to my friends,
6 it should at that point identify it in some way so that
7 when they -- and we'll leave aside for a minute how
8 exactly this happens mechanically, when they say this is
9 cool and remix it, the EIDR identification puts this
10 through into the derivative work, and I take your point
11 entirely.

12 But in some cases, the identification is done
13 by third parties entirely, by bibliographic agencies, by
14 librarians in the case of some parties. Most of the
15 party identifiers around there have come out of the
16 Library of Congress, blast them. They've done a
17 fantastic job on that, quite without anyone's knowledge.
18 People say, well, how come I've got this identifier.
19 Well, the librarians did that for you. That's what
20 librarians do, ever since we burned the one in Alexandria
21 -- the other Alexandria -- they've been giving index
22 cards to stuff and keeping track. But so who should do
23 the registration?

24 MR. ISHERWOOD: Can I just pick up on the point
25 you made about the sort of bedroom deejay? DDEX has just

1 launched about two months ago a new standard called the
2 recording information notification specification, and
3 what we'll be working with over the coming months is
4 working with digital audio workstation companies to
5 actually integrate this into their standards.

6 There are also a number of companies like
7 Orderly or Jamba, various other companies like that that
8 are creating apps and tools for creators and musicians to
9 actually start to collect some of this data. And if we
10 can persuade them to integrate the RIN standard in as
11 well, then we're going to start to, A, find a way where
12 we can start doing the identification, but also find a
13 standard way in which the sort of data at the point of
14 creation can actually gradually start to enter the sort
15 of established supply chain. So this is something else
16 that we've worked on, and it kind of brings a complete
17 suite of standards from creation point to when the money
18 gets back to the rights owner.

19 MR. JESSOP: Yeah, I mean, just two points. I
20 was on the -- I came through New York on the way here. I
21 met a company that are doing 500,000 tracks a year -- and
22 completely almost unbeknown to the bedroom deejays and
23 school marching bands and whatever who are distributing
24 their stuff through them -- they get an ISRC as part of
25 that. And it just works. And there are plugins for

1 Adobe Photoshop that get you a watermark and a number to
2 make sure that your photograph is visible to other people
3 in a -- identified to other people in a visible way --
4 invisible way in this case.

5 Who does the registration for audiovisual works
6 within the EIDR system, Giridhar?

7 MR. MANEPALLI: It's mostly the creators
8 because they care. And there are two perspectives here.
9 I guess the perspective that George is taking is that the
10 parties who care are the parties who are going to
11 register and get an identifier allotted to that. The
12 other perspective that I'm taking, not necessarily as the
13 only perspective, is that if you can somehow lower the
14 overhead of creating these identifiers and given that
15 most of the assets today are born digital, you can
16 actually associate an identifier at the time the digital
17 asset comes into existence. And if you can make that
18 happen, then we don't leave it up to the downstream
19 services to actually allot those identifiers because if
20 the same asset is now being used by two or three
21 different parties, then it will end up with three
22 different identifiers because they haven't had any idea
23 that these other parties are also using the same asset.

24 So if you can somehow come up with a -- with a
25 system for associating these identifiers at the time when

1 these assets are created, then the disambiguation will be
2 -- well, the ambiguity will be less.

3 MR. JESSOP: I'm going to come to Stuart, but I
4 wanted to say there are microphones in the room, if
5 you've got something you'd want us to talk about, you
6 need to go to one of them and then wave at me so you
7 catch my eye.

8 News must be almost as complicated as music in
9 this sense as to where these things are going to get
10 identified and who's going to register, whatever we're
11 going to do with them.

12 MR. MYLES: I mean, so for us at the AP and
13 most news organizations I'm aware of, it's not really
14 that simple what you're describing. So, I mean, often
15 the person who creates a work is not the rights holder,
16 right? So, in fact, it's very rarely the case. So one
17 of the complications, then, is it's normally an
18 organization that's the rights holder, but organizations
19 or parts of organizations that change over time, merge as
20 acquisitions, spinoffs, companies go out of business and
21 so on.

22 And, also, so we don't really do central
23 registration. It's really essentially -- typically it's
24 we share works, we reassert an identifier, so as a piece
25 of content flows through different news organizations, it

1 gets multiple different identifiers, and there is no
2 centralized system.

3 MR. JESSOP: And National Geographic, do you
4 get identifiers through from your suppliers?

5 MS. STAUDT: Yeah, we get -- I mean, I can only
6 speak from the video side of the business. We recently
7 have started to work with 21st Century Fox and their
8 Foxipedia, which is basically at the moment of creation
9 of that video asset it gets a unique identifier and then
10 can move on from there. But we're struggling across the
11 organization. That's just particular to video.

12 How do we, then, build that out to make sure
13 that photos are encompassed and the print works and --
14 and as a multimedia company that our systems are joining
15 up across all platforms.

16 MR. JESSOP: A challenge indeed.

17 In the audience, I'm hoping your microphones
18 are going to work.

19 (Comment off microphone.)

20 MR. JESSOP: Okay, I can hope that microphone
21 needs to be done something to it, but so the point was
22 that identifiers are being stripped out by the engines
23 that are being, A, used by the large tech companies. I
24 don't know how they get away with that because the --

25 MR. HOWARD: Who gets away with what?

1 MR. JESSOP: Well, with removing rights
2 management information from photographs when they use
3 them.

4 MR. HOWARD: We talk in these bizarre -- what's
5 the word -- like, who's "they"? Like there's some -- I
6 mean, this isn't "they." There's no -- I mean, you're
7 dead right. If I -- if I want to upload something to
8 YouTube and YouTube's content ID says, no, you can't do
9 that, I tweak it one DB and yes, I can. So your point
10 about an immutable ledger -- and somebody brought up
11 Foxipedia, which I assume is like Wikipedia, right? --
12 Wikipedia has a change log. So if I put some bad data in
13 there, eventually the wisdom of the crowd, such as it is,
14 or the Wikipedia editors will say, no, that's bad data,
15 and it will get changed, but I can scroll back and see
16 that.

17 That's the metaphor for the blockchain. You
18 can put bad data, garbage in, on the blockchain, and it
19 will be immutable. What we're really talking about is
20 reputation management. What we're really talking about
21 is do you have any authority to ascribe something there.
22 And then we're talking about what happens when the chain
23 is broken, when DRM -- nobody wants to say that word, but
24 that's exactly what we're talking about now, DRM. Once
25 that gets broken, how do we reconnect it?

1 There are companies out there. I don't know if
2 anyone's here, but one of the OMI signatories, a company
3 named MediaChain, and they're saying, no, we can
4 reconnect it and we can reconnect it both through sort of
5 reputation scores as well as technology like YouTube,
6 Facebook use and reconnecting you start building that up.
7 We are arguably in a pizzagate, post-truth world where
8 it's going to take some secondary source to say, who are
9 you.

10 I'm working right now with Intel on a
11 blockchain project to address secondary ticketing to say
12 is this a bot or is this a human being that's buying this
13 ticket, because if I -- that bot buys it and then resells
14 it, who do you go after, right? So --

15 MR. JESSOP: So you asked the question, who's
16 "they." Well, "they" in this case is the platforms.

17 MR. HOWARD: No.

18 MR. JESSOP: Yeah. Well, hang on.

19 MR. HOWARD: Come on. I mean, it's --

20 MR. JESSOP: Don't argue. Don't argue with --

21 MR. HOWARD: -- but who builds the platforms?

22 MR. JESSOP: -- what I'm -- that's just the way
23 that the word is being used here. The platform is being
24 built by large tech companies. When people upload media
25 to them -- I'll come back to you in a moment, Stuart --

1 they actively remove the metadata before they publish it.
2 And I don't know how they get away with it because my
3 understanding is that that's not permitted because that's
4 rights management information.

5 Stuart.

6 MR. MYLES: Thanks. So as well as working with
7 the Associated Press, I'm also Chairman of the Board of
8 the IPTC. So IPTC is a news technology standard body,
9 and one of the things we've done over the last few years
10 is we've done a study where we take photos and that have
11 embedded metadata. We upload them to various different
12 platforms like Flickr and Facebook and so on, and we look
13 at what is the metadata that gets preserved and what gets
14 stripped out.

15 So I guess the good news is that most of the --
16 over the last few years they are -- most of those
17 platforms are starting to strip out less metadata. But
18 most of them -- most of them do still strip out metadata,
19 and I'd be happy to share afterwards if anybody's
20 interested, links to the detailed studies. So that's one
21 thing.

22 The second -- so a couple more points, if I
23 may. One second thing is there are actually legitimate
24 reasons that people put forward for why they strip out
25 that sort of metadata. And, actually, AP also eliminates

1 certain kinds of metadata from photos.

2 So in our case, we, for example, eliminate
3 location information. So if a photographer is in a war
4 zone, their digital camera records exactly where they are
5 when they took that photo. So we have policies about
6 what kind -- what we do with that metadata. Some of it
7 is stripping it out; some of it is sort of blurring the
8 details and so on. And that's actually a similar reason
9 why organizations like Facebook have put forward about
10 why they eliminate metadata. It's because they realize
11 that it can be used to leak information inadvertently
12 that some photographers would have no idea that that's
13 what they're doing.

14 And, then, the third thing is that there is --
15 there are ways to re-identify photos. So even though --
16 even though the metadata itself can be stripped out and
17 the photo itself can be edited, filtered, cropped, and so
18 on, there are techniques that you can use to say this is
19 probably the same as this. And, you know, again, I'm
20 happy to talk about it later.

21 MR. JESSOP: And, actually, looking at some of
22 those reverse image systems, they are spookily good, like
23 scarily good. I wanted to come back to you, and then
24 I'll come to Bill for a comment, and then I want to move
25 on to the last question, which is what should the

1 government do about all this. But do come back --

2 AUDIENCE: But a reverse search is an active
3 search. You have to actively participate in that, as
4 opposed to containing the information in the files for
5 someone to be -- easily be able to identify that file.

6 There's a gentleman in the U.K. I know that is
7 working for the music industry trying to get music
8 licensing and to come up with a .BC file.

9 MR. HOWARD: That's Benji. He's probably here.

10 AUDIENCE: I saw him speak --

11 MR. JESSOP: He's on the list to be here today.

12 AUDIENCE: -- at a forum in California. So
13 it -- I mean, that's the type of thing where the
14 authorship is the only one that can put that information
15 into the blockchain. It goes into the blockchain at the
16 beginning when it's pushed out onto the internet. And
17 that's something, I think, that would really help because
18 I personally believe that you're saving so little file
19 space by removing the metadata, which is Facebook's
20 supposed reason for doing it, but they're purposefully
21 pulling out the authorship information out of that.
22 So...

23 MR. JESSOP: Mr. Rosenblatt, sir.

24 MR. ROSENBLATT: Hi. Yes, I'm Bill Rosenblatt
25 from GiantSteps consulting firm in New York, and whenever

1 this issue of identification bound to an asset comes up,
2 I'm always surprised, if not shocked, at the lack of
3 mention of watermarking as a way to solve this problem.

4 MR. JESSOP: I think I mentioned it once.

5 MR. HOWARD: It came up, and I just said DRM.

6 MR. ROSENBLATT: Watermarking is not DRM.

7 MR. HOWARD: Okay, well, what do you mean,

8 Bill?

9 MR. ROSENBLATT: Simply embedding an identifier
10 into an asset. DRM is controlling access so that you
11 can't --

12 MR. HOWARD: Through an embedded --

13 MR. ROSENBLATT: -- do certain things.

14 MR. HOWARD: Okay.

15 MR. ROSENBLATT: No, no.

16 MR. HOWARD: So what do you -- go ahead.

17 MR. ROSENBLATT: I'm actually tired of having
18 the water -- is watermarking DRM argument, so we can take
19 that outside if you want. I do have boxing gloves in my
20 luggage.

21 The point is that, yes, there is some effort
22 and cost involved to embed data into an asset, and then
23 there are certain types of assets for which that's not
24 particularly effective, but I've seen a lot of discussion
25 about blockchain techniques. You know, as you know,

1 George, I'm active in the Open Music Initiative.

2 And a lot of these solutions like dotBlockchain
3 and mediachain and so forth, nobody's talking about
4 watermarks. Watermarks are a way of forcing the
5 identifier to travel with the asset so that it can't be
6 stripped easily. Let's say easily. So I just want to
7 put it out there that that's something that ought to be
8 talked about more.

9 MR. JESSOP: I completely agree. I mean,
10 watermarking's a very cool technology. It works very
11 well in many cases. I would point out in the music
12 industry there's a movement towards what they call single
13 digital master, so it would be a single, very-high-
14 resolution master from which all other distribution
15 copies are derived.

16 So whatever watermarking you're going to put
17 in, you've got to put it in at the very early stage,
18 which means it's got to be inaudible and not affect the
19 quality, even at the very highest quality levels, which
20 are now stratospheric. And that's a really tough nut to
21 crack and a very tough nut to prove to people -- because
22 you can't prove a negative -- that they can't hear it.
23 But that's probably a rabbit hole for the purposes of
24 this discussion, but it's one we should certainly mark as
25 being worthy of further discussion.

1 MR. ROSENBLATT: Right, but the other point
2 that I just want to make quickly, and I agree with
3 everything you said, is that the beauty of something that
4 you embed as a watermark is that it's unambiguous because
5 you put it there.

6 MR. JESSOP: If there's some data that's
7 persistent that it points to.

8 MR. ROSENBLATT: Right, but the -- I'm
9 contrasting that with something like a reverse image
10 search or a fingerprint which is not 100 percent
11 accurate. It's often good enough, but sometimes it's
12 not.

13 MR. JESSOP: The testing I've done, the false
14 negatives in fingerprinting are -- on the good systems --
15 very low indeed. It's certainly on the same order as the
16 watermark do, right. I should have said at the beginning
17 I reserve the right to shout "rabbit hole" if we're about
18 to go down one, and I'm about to do that. Watermarking,
19 rabbit hole. Conversation over coffee, by all means.

20 I've got a couple of minutes left. I wanted to
21 go down the panel and ask what should the government do
22 verging on the spectrum from run systems, make everyone
23 do it, and get out the damn way. What should the
24 government be doing? George.

25 MR. HOWARD: Educate, market better. There is

1 a fundamental lack of understanding. I see it every day
2 in the classes I teach at Berklee and at Brown at the
3 creator level about what rights they have and they don't
4 have. I'm not saying that that is an easy education
5 process, but they need to endeavor to do a better job of
6 it.

7 And then -- and then they need to enforce
8 contract. And that's it. And then they should just stay
9 the hell out of the way and move towards a place where
10 there is fewer licenses, statutory licenses, because we
11 have to move out of the modeling to measuring. We have
12 to move to measuring. The licenses are an artifact of a
13 modeling society. As we move to a measured system, the
14 highly statutory licenses should have no place.

15 MR. JESSOP: Okay. No longer than that, Mark.

16 MR. ISHERWOOD: I think broadly I would agree
17 with what George has said, which is a rare thing, but the
18 only --

19 MR. MANEPALLI: That was going to be my line.

20 MR. ISHERWOOD: Okay. The only -- the only
21 caveat I would make to that is that there is the
22 occasions where governments can actually do some sort of
23 metaphorical banging heads together to encourage the
24 adoption and development of standards. I think one of
25 the difficulties with this is that as we all know this is

1 a global issue, not a country-specific issue. And for
2 individual governments to do separate things is actually
3 going to get in the way. So there's a very important
4 coordination and cooperation activity that has to go
5 along horizontally between governments to make sure that
6 individual activities don't start to get in the way.

7 MR. JESSOP: Thanks.

8 Giridhar, briefly.

9 MR. MANEPALLI: Like I said, I completely agree
10 with George on this one, and this is the only thing that
11 I agree with him today. And -- but I just wanted to say
12 that this conversation that has -- the discussion that
13 has happened so far is slightly polarized towards rights
14 management, but the -- but the importance of allotting
15 identifiers and associating identifiers with digital
16 assets is important, not just for license management and
17 rights management, but also for a variety of reasons.

18 In the case of movie industry, it could be
19 because of the identification of the viewership, for ad
20 placements; it could be because you would want to
21 identify the devices on which the movies could be played.
22 There are myriad reasons why you want to actually
23 associate an identifier at the time of its creation.

24 And we have seen this -- seen similar kinds of
25 challenges in the scientific data sets area where if you

1 don't associate an identifier at the very beginning when
2 the data set is created, there is a decay in the amount
3 of knowledge and information and context that could be
4 associated back with the digital asset. So I hope we can
5 move towards a world where the creations of identifiers
6 are -- have no overhead, and therefore they are created
7 at the time when the digital asset comes into existence.

8 MR. JESSOP: Very briefly, Stuart. Ten
9 seconds.

10 MR. MYLES: So there's technical solutions for
11 things like identifiers and formats for things like
12 RightsML and ODRL, which I'm sure will be mentioned
13 later. There's business needs that players in the news
14 industry want, but the problem, I think, is that nobody
15 really wants to make the first move because they're
16 worried that they'll adopt the wrong set of technologies
17 or standards and so on. So could the government bring
18 organizations together to help them figure out a way to
19 make a move into proper rights management that eliminates
20 or modifies some of that risk?

21 MR. JESSOP: Very briefly.

22 MS. STAUDT: Very briefly. I just think
23 encouraging companies and helping them find ways to
24 effectively get the resources in order to put forth some
25 of these unique identifiers and implement them, you know,

1 that's as simple as it is. Help corporations put these
2 in at the beginning when they are creating these works.

3 MR. JESSOP: Thank you very much indeed.

4 Ladies and gentlemen, would you join me? Thank
5 our panel. We've got to the end.

6 (Applause.)

7 MR. JESSOP: There were a couple of responses
8 came in over the living airwaves. We need to have
9 digital contracts for any business or action in order to
10 protect rights. So there's digitalization of the
11 contracts.

12 And a clarification on EIDR is any party can
13 register for a unique ID if they've got a business need
14 for it. So that's an aspect to what we were talking
15 about.

16 Thank you very much. We'll move on.

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MORNING PANEL SESSION 2

1
2
3 **Registries and Rights Expression Languages:**
4 **Once works are identified and described**
5 **consistently, how is information about rights**
6 **ownership organized into usable registries, and**
7 **how is that rights information expressed in a**
8 **standardized way?**
9

10 MR. GRIFFIN: Okay. We're the second panel.
11 We're picking up the baton in a relay race of some kind.
12 The first panel was, of course, focused, as it was, on
13 identifiers. We're speaking more broadly about
14 registries and rights expression languages, and so we
15 make the assumption that the thing has been properly
16 identified, that the ambiguity has been rung out of the
17 system, and that then there is information to be recorded
18 and enumerated.

19 And, so, the question before is how, not if, we
20 organize rights ownership information into usable
21 registries. Now, I'm not going to be that strict on the
22 issue that it's rights ownership information because I
23 think there is a more broad sense.

24 Greg, I know you're looking at things a little
25 more broadly than that. And, actually, I think of it as

1 a rather broad category. Once you have a lynchpin
2 identifier for something, you can then, of course, have
3 many spokes off that hub, and rights ownership
4 information is but one of those things. But we are going
5 to talk about how we express that rights information --
6 or whatever information -- in a standardized way.

7 When I was researching this panel, I noted that
8 Ryan had referenced a tweet that I thought was a kind of
9 theme for us, and that was that it takes a pretty good
10 meeting to beat no meeting at all. So I thought the
11 panel did a good job of giving us a pretty good meeting,
12 actually a very good meeting. And our goal is to try to
13 keep that up so that you don't wish you were someplace
14 else. So we're going to stay on that theme.

15 And I'm going to introduce each one of these
16 panelists briefly, and then we're going to move on. So
17 Nathan Lands is here from Blockai, and there he is the
18 CEO and cofounder. Nathan, yeah, raise your hand. Good,
19 people can see that.

20 Bill Colitre from Music Reports is the vice
21 president and general counsel there. He heads the
22 royalties services division and leads their business
23 development team.

24 Ryan Merkeley from Creative Commons is the CEO
25 at Creative Commons, but more importantly, he calls

1 himself dad, geek, and barista, and sort of -- amateur
2 barista, likes open things, which he terms as, for
3 example, government or diners. So I think that's rather
4 good.

5 Greg Cram is here from RightStatements.org, and
6 they have 12 standardized rights statements for online
7 cultural heritage. And they are funded by the Digital
8 Public Library of America and Europeana, which makes it a
9 really interesting project. And the things that you're
10 working on are really for the benefit of mankind, no
11 question.

12 Jeff Sedlik is here, and he is the cofounder
13 and the president and the CEO of the PLUS Coalition, but
14 in addition, he's quite the creator himself. And, so, he
15 is a professional photographer, and he makes films and
16 other things like videos and so forth and so is quite the
17 creator.

18 And then last but not least we have Greg
19 Fioravanti, who is the vice president of business affairs
20 at Discovery. Lest you think that he is a geek or a
21 quant entirely, he also acquires content and commissions
22 content for Discovery, which makes his job a doubly
23 interesting position, I think.

24 So, okay, I want to pick up a thread from the
25 first panel because I thought it was rather spot on to

1 have an example that meant something. And, so, I'm going
2 to ask Jeff Sedlik to talk a bit about photography
3 because there were some issues that came up from the
4 audience, and it's an interesting example for us to use.
5 And, also, I note this because Jeff is right in the
6 middle of bringing about a project that isn't quite
7 public yet but will be, and so I think there are some
8 special insights there. I know apropos to the first
9 panel, he's working to identify photographs which today
10 do not have so much a common identifier to them but also
11 is embarking on including a rights registry with that.

12 So, Jeff, could you tell us a bit about the
13 PLUS Coalition and the work you're doing on recording and
14 enumerating photography and other graphics and images?

15 MR. SEDLIK: Thanks, Jim. So the PLUS
16 Coalition is -- let's see, I'm a lot -- I have a lot less
17 hair and a lot more gray hair, and I think I'm about an
18 inch shorter than when I started on this. I was at a
19 Copyright Society meeting sitting with Marybeth Peters
20 and David Nimmer, not two people who you would think were
21 the most forward-thinking on technology, but they -- what
22 they mentioned was that if the photography industry
23 doesn't step forward and catch up with other industries
24 in terms of identifying creators and owners and works and
25 rights, it's going to be a dead industry, you know. And

1 this was about 12 years ago.

2 And, so, at that point, actually through a
3 suggestion and in cooperation with the Copyright Office,
4 we began to put together a nonprofit coalition of
5 stakeholders -- the creators of visual works, the users
6 of visual works, and the cultural heritage sector -- all
7 coming together into one organization to address
8 identification, to create standards to describe the
9 meaning of various terms that are used to create the
10 beginnings of standards, to communicate rights
11 information when it's passed around in contracts, however
12 it's messaged, whether electronically or otherwise, and
13 then to use that information to then proceed to build a
14 registry that's not run by the government, that is run
15 cooperatively by all the stakeholder groups who depend on
16 it.

17 And, so, this is called the PLUS Registry, and
18 it actually satisfies what was talked about earlier.
19 It's aimed to satisfy that, which is identifying people,
20 things, and rights. So you can register yourself and
21 your company; you can register your photographs, your
22 paintings, your illustrations; and you can register your
23 rights transactions. And we have the foundation for the
24 ability to communicate rights between machines.

25 The first step, obviously, was to create those

1 standards, so we dedicated four years to bringing people
2 together. We had participants from 34 countries. We
3 had 1,500 people from various different organizations.
4 Organizations like Creative Commons participated in
5 what we were doing. Stanford, the New York Public
6 Library, all the different photography groups, various
7 political -- or let's say various governmental agencies.
8 We started simple, and we said can we create a glossary
9 that defines terms that people actually use when they are
10 communicating rights information to do with visual works.
11 And we said let's take 1,500 words and see if we can get
12 everybody to agree.

13 So we created an online system. It's kind of
14 like a -- we created this system so that everybody could
15 sign in, look at these words, and basically create -- I
16 guess you could call it taxonomy -- we call it a glossary
17 for public consumption -- of all the words. And we
18 applied identifiers to all those words. And we made a
19 hierarchy of all the different types of media that exist
20 in the world. And we had teams of volunteers from very
21 interested entities working on this. And then we went on
22 to create common package of usage rights.

23 We're not talking about applying any value to
24 this. This can be free for people who want to share
25 their work in the same way that Creative Commons provides

1 the ability to identify a package of rights that you want
2 to grant to anyone who wishes to use your work. We take
3 that to another level, which is applying actual more --
4 either broad or granular rights information to a license
5 or to an offering, and we support Creative Commons as
6 well.

7 So once -- with our standards in place, we then
8 began raising money to build a registry system. And when
9 I call it a registry system, it's actually a system
10 that's designed to connect all the registries around the
11 world, and any system that holds information, we want
12 those systems to be interoperable, to be able to
13 communicate with each, and especially registries of
14 visual works, where you can search one registry or one
15 database and it will search all registries connected to
16 this network, to this rights network.

17 And that's what we've set about doing, not
18 creating one centralized registry, but creating a system
19 that connects them all. And, importantly, as a
20 nonprofit, that's impervious to buyouts or takeovers, so
21 that one media company can't come in and buy the whole
22 thing. And, also, we're not dependent on government
23 funding because governments change, as we've all seen
24 recently, and governments can pull funding. And that can
25 -- and governments can shut down registries if they don't

1 like them.

2 So this is independent of any influence by any
3 one stakeholder. We have a board of directors that has
4 one seat for every sector involved in creating, using,
5 distributing, or preserving images, and they all have to
6 be nonprofits, so you can't buy your way onto the board.
7 So we took some time to insulate ourselves from undue
8 influence and then proceeded down this road of
9 identifying people, things, and rights.

10 And we're mid-development now. We've got a
11 system that's online with people registering. We've got
12 registrations from 150 countries or so. And we're
13 continuing to build a piece that allows you to register
14 assets, and then we'll come to the piece that allows you
15 to register rights information, but the idea is that
16 wherever you are in any country you can find the rights
17 information associated with any visual asset that you can
18 find.

19 We're also working in cooperation with the
20 Copyright Hub in the U.K. -- hi, Caroline -- and fully
21 support what they're doing, of course. And we view it as
22 different pieces of the puzzle that come together that
23 all need to talk to each other to solve a global problem.
24 You can't create a U.S. registry and expect that to do
25 the trick. You can't create a purely U.K. registry and

1 expect that to do the trick. You have to tie them all
2 together.

3 So that's what we're involved in. We're mid-
4 stream, and in terms of tying it back to the previous
5 panel, we use identifiers. We created a system of
6 identifiers, but we also support ISNIs. We support any
7 different kind of identifier you want to put into this
8 system, and then we have a -- what we would call an
9 identifier unification layer that allows you -- that maps
10 all these identifiers to one spot.

11 Just answering one question that came up on the
12 last panel, which is, is it illegal to remove copyright
13 management information. No, it's not illegal. It's only
14 illegal if you do it with the intent to induce, enable,
15 or facilitate infringement. So you can strip that
16 information out of there.

17 Technically, if you were doing it with the
18 purpose of overcoming some kind of protection --
19 technical protection measure, yes, but the reason that
20 these companies are stripping it out is they need fast
21 page loads time. They want to sell ads. They want their
22 ads to show up quickly, and even though every image only
23 holds a little bit of information, it very much slows
24 down the whole system and reduces revenue and profits and
25 margins by having so much metadata and images.

1 Now, I'm Mr. Metadata, so I support keeping it
2 in there. I'm on that IPTC working group that Stuart is
3 on, and it's critical that that metadata be retained. I
4 don't want to hog the panel here, so I'll --

5 MR. GRIFFIN: Well, no, it's a good jumping
6 point because to the right of you, of course, is Nathan
7 Lands, and he's working to democratize copyright
8 registration. And he's using the bitcoin blockchain, I
9 believe, to record that information. And, so, Nathan,
10 make the argument that Jeff should be working with you
11 and recording this information on the bitcoin blockchain
12 and that it should be democratized in the way that you're
13 planning to do and doing at Blockai.

14 MR. LANDS: So I'm not sure I would make the
15 argument that he should be working with us right now. I
16 mean, we're looking to, you know, get creators to use the
17 platform, to begin with. That would have actually been
18 my question for Jeff, was I was curious, like when we
19 started building Blockai, I looked at a lot of different
20 copyright registry systems that, no offense, but I didn't
21 see any good products that, like, as a creator I would
22 actually use. You know, there is no company building
23 like a really good copyright registration system or
24 copyright search or anything like this.

25 So, I mean, I wouldn't -- you know, I would

1 love to learn more about it. I really don't know that
2 much about it, but, you know, right now, we're just
3 building a platform that's like kind of like a one-stop-
4 shop for copyright. So --

5 MR. GRIFFIN: I know --

6 MR. LANDS: As soon as you -- you know, the
7 idea with what we're building is as soon as, you know, a
8 creator creates something with whatever creative tool
9 they're using, automatically we basically kind of like
10 notarize in the bitcoin blockchain a record, which is
11 like the decentralized part of it.

12 And our model is kind of like a hybrid model
13 because to have a good user experience and to prevent
14 fraud, you also need some part of the system that's
15 centralized, and then the copyright claim itself is
16 decentralized. And, so, the idea here is that you'll
17 have a reputation on what's code named Blockai, which
18 we're -- you know, that's the code name for --

19 MR. GRIFFIN: It's a code name?

20 MR. LANDS: Yeah, for now, yeah.

21 MR. GRIFFIN: Well...

22 MR. LANDS: Yeah, we've raised quite a bit of
23 money that we haven't disclosed yet from some very
24 powerful people and will be rebranding and announcing
25 that early next year. But we launched the first version

1 in March this year to not too much fanfare, but we got
2 some attention, TechCrunch and whatnot. We relaunched in
3 July, and since then, we've been growing about 230
4 percent month over month since then. And that's mostly
5 through integration, so we're building -- you know, we
6 build integration. At first, you basically just use the
7 website and you'd put your images on there. We're
8 starting with images, but technically it works with
9 anything. And then we started building integration.

10 So we built integration with Twitter so you can
11 use a hashtag and you automatically claim your copyright.
12 We tweet at you a link to the copyright claim, and that's
13 been going pretty viral where people will see this and
14 then they'll -- they'll try it out. And they're like,
15 what does that mean, I can claim my copyright for this
16 image, and then we -- as soon as we did that, we had lots
17 of requests for building it for Instagram and Lightroom
18 and Photoshop and all that. So we're really seeing all
19 of that in the next three months, most of that.

20 And we launched Instagram about a week ago,
21 which that was -- or I guess it was two weeks ago right
22 now. But -- and since then, things have been going up a
23 lot.

24 MR. GRIFFIN: It sounds like you share Jeff's
25 fear that government ought not be involved in these sorts

1 of efforts or adds little to them.

2 MR. LANDS: I don't know. We're still figuring
3 that out. Like, I mean, I'd never -- you know, I would
4 say that out of everyone, probably everyone here, I have
5 like the least experience in copyright. We started
6 building the company -- you know, so when I was a kid, I
7 mean, I grew up in a pretty poor family in Alabama, and I
8 made money as one of the top players on EverQuest by
9 selling virtual goods and creating these things, and that
10 really like changed my life.

11 I went from, like, you know, my father was a
12 drug addict and I had a very hard upbringing, and the
13 money I made from being a kid and being able to make
14 money on the internet, that allowed me to travel the
15 world. I've got, you know, a great life, I've had money
16 my entire life since then and never had to work for other
17 people.

18 And, so, for me, like part of it was just
19 thinking about the future as, you know, jobs continue to
20 change and, you know, lots -- you know, lots of people
21 are going to lose jobs in the future, and I think that
22 one thing that's not going to be replaced for quite a
23 while is -- maybe never, but maybe 100 years, I don't
24 know -- is creativity.

25 And, so, that's where I started, you know,

1 really getting passionate about building this is building
2 the infrastructure where people who create things can
3 properly be, you know, incentivized and rewarded for
4 their work, which I think right now is not really
5 happening. And there are companies like Facebook and
6 others where their incentives are not really aligned with
7 the caring about that because it would actually be bad
8 for them to care about that. And, so, we're trying to
9 build the infrastructure for, you know, people to start
10 caring about copyright again. And, yeah.

11 MR. GRIFFIN: Well, you know, I think Blockai,
12 that would be a great name for -- in a James Bond film
13 probably.

14 MR. LANDS: Well, yeah, I mean, it's also
15 because the blockchain is only one aspect of what we're
16 doing, right.

17 MR. GRIFFIN: Gotcha.

18 MR. LANDS: And also for creators, it's a
19 little bit -- anything blockchain-related like kind of
20 just like goes over them and they're -- you know, it's
21 like one part of what's interesting to them, so...

22 MR. GRIFFIN: Well, Bill -- Bill Colitre,
23 you've got a unique platform there at Music Reports that
24 you've put together. You want to talk a little bit about
25 how you'd approach the same problem from a Music Reports

1 aspect? And, again, you know, we won't tie you to the
2 word "music" because it's given you deep experience, but,
3 of course, you'd be willing, I know, to tackle the
4 problems in photography or in any medium.

5 MR. COLITRE: Yeah, sure. And by the way, it's
6 one of the best descriptions of how blockchain can be
7 used I think that I've heard articulated yet, so
8 congratulations. That's really cool. Thank you for
9 turning that --

10 MR. GRIFFIN: Oh, not a problem.

11 MR. COLITRE: So Music Reports is primarily
12 based around a registry, this Songdex database, which is,
13 at this point, the largest and most current database of
14 music rights and related business information in the
15 world. And it did so as a private entity, and it did so
16 without any motive other than the profit motive. It
17 wasn't government-sponsored; it wasn't particularly
18 advocated or loved by the rights owners themselves. But
19 one of the -- you know, the problems that we've described
20 here is that asking creators to affirmatively identify
21 creations at the time of creation is a very challenging
22 thing, which is a little surprising.

23 I mean, for a very, very long time there's been
24 a tradition in painting to sign the painting when you're
25 done, and then, of course, you know, there's arguments

1 about whether that's even fair. Oftentimes the signature
2 would be the name of the master, but many people
3 collaborated on the work, for example.

4 But asking, you know, a poet to stop and mark
5 down everything that they've, you know, identified about
6 their work at the time of creation is almost impossible
7 and, you know, scaling that up to all the creators of a
8 major scale audiovisual work is extremely difficult to
9 imagine without a profit motive, right?

10 Asking creators to identify things
11 affirmatively when there's, you know, such a lack of
12 education about these very complex data standards, for
13 example, in the beginning is like pushing on a string.
14 It just doesn't work. But if you can pull on that string
15 by bringing the creative works into a registry where
16 there's a, you know, a commercial incentive for them to
17 do that, that can be effective, and we've proven that.

18 Music Reports began with, you know, the clutter
19 of insufficient identifiers that exists for sound
20 recordings and musical compositions. Musical
21 compositions, of course, are not digital works in any
22 way, shape, or form, and so there's -- and a special case
23 there with respect to, you know, photographs and other
24 things which are often inherently digital now. But then
25 attaching those to the inherently digital works mostly

1 nowadays that are sound recordings is itself a science,
2 and obtaining the information about those assets so that
3 you can tie those two things together is a challenge,
4 right? That's the two-part data challenge in the music
5 space in particular.

6 But, then, once you've done that and created a
7 registry that identifies those works, then you can draw
8 in rights users and offer them terms in a free and open
9 marketplace for those rights. And one of the cavalier
10 things that you said, Mr. Howard, was, you know, how --
11 you know, there are going to be transactions --

12 MR. HOWARD: I only said one cavalier thing?

13 MR. COLITRE: Well, one of the cavalier things
14 you said was that there are going to be transactions
15 first, and I'm either going to get sued or I'm going to
16 license. And there's something to that, right?

17 MR. HOWARD: (Comment off microphone.)

18 MR. GRIFFIN: Well, I hope it's not because we
19 have great respect for you.

20 MR. COLITRE: I hope it wasn't -- I hope it
21 wasn't taken that way. I didn't mean to --

22 MR. HOWARD: No, no, no, I mean --

23 MR. GRIFFIN: In the spirit of discussion.

24 MR. HOWARD: -- it might have helped you out
25 (off-microphone comment).

1 MR. COLITRE: Point taken, apology made.

2 MR. GRIFFIN: Actually, I thought it was a very
3 good observation on your part that these aren't the
4 priorities of creators. And as a result, they're
5 afterthoughts, and --

6 MR. COLITRE: Right. All --

7 MR. GRIFFIN: -- they're going to be done --
8 and, so, I think here's to you for that, but let it go.

9 MR. COLITRE: And all I meant to suggest was
10 cavalier about that is that many of the rights users in
11 the world are very, very reluctant to build businesses
12 that can be vulnerable to copyright infringement lawsuits
13 with extremely high statutory damages attached to them.

14 MR. HOWARD: (Off-microphone comment).

15 MR. COLITRE: Well, I do work with some of
16 those companies, and I can tell you that there's a lot of
17 concern about it, but there's -- that concern is tempered
18 by the --

19 MR. HOWARD: (Off-microphone comment).

20 MR. COLITRE: I'm not going to make apologies
21 for them at this point, but there is definitely a concern
22 in the rights user community to be very careful about
23 copyright. As much as many people, you know, feel that
24 they haven't done enough in that regard, they are very
25 conscientious about it and they try very hard, but this

1 lack of standards, this lack of data, creates a vacuum.
2 And, so, I think our collective task here is to try and
3 find a path for the free market to create solutions
4 around these things, and I think that that can be
5 achieved. I think our platform demonstrates that.

6 MR. GRIFFIN: Greg Fioravanti, you look at it
7 from the perspective of Discovery Communications, a
8 pretty big company now and some of our favorite shows to
9 watch, especially on, say, Friday night. So tell us a
10 bit about what you go through, not only putting content
11 together, but managing the rights around that content
12 with your company's interests in mind.

13 And then we're going to ask Ryan about how that
14 plays in his world in which I think he decidedly thinks
15 about it from a slightly different perspective.

16 MR. FIORAVANTI: Yeah, I think what we're
17 talking about here, especially when you're talking about
18 elements -- photographs, music, et cetera -- that's being
19 put into television shows, is to reduce the bottlenecks
20 and to allow for the seamless transition and transactions
21 that occur. And that's a definite concern and problem in
22 the industry. You know, from -- on the rights and
23 clearances side, when we're deciding whether or not to
24 put images or music or whatever into a show, you know,
25 production people will routinely run into a question

1 about who owns something or what the rights are to a
2 specific show.

3 And if we can't get a clear, quick answer, we
4 move on. You know, there's not enough time to, you know,
5 however great that image would be and however it might
6 enhance the editorial of the show, without, you know,
7 some clear, quick answers, you know, we'll move on. And,
8 so, you know, I think that's to the detriment of the
9 creators that by not having availability to that content,
10 you know, in an obvious manner that, you know, the
11 editorial loses out, but also the creators of that
12 content will also lose out.

13 MR. GRIFFIN: Ryan, 10 million or more
14 websites, I think, rely upon Creative Commons for much of
15 their content, and I know you look at your efforts as
16 decidedly different than those of a large company that
17 might be looking at its interests. Could you tell us a
18 bit about how you approach these issues and think about
19 them?

20 MR. MERKELEY: Sure. First maybe I just
21 acknowledge that we're an all-male panel up here, and I
22 hope that we think a little bit about -- and my comments
23 will reflect -- I hope that some different voices will
24 get brought into this conversation.

25 MR. GRIFFIN: I will note it was women who put

1 us up here, but I will say they are good -- they are good
2 women I respect, and I would not tell them how to do
3 their jobs. So I was in a bit of a quandary there, but
4 I'm with you, Ryan. I think we're all with you on that.

5 MR. MERKELEY: You know, Creative Commons is an
6 organization that creates a set of licenses that allow
7 people who hold copyright to share under standardized
8 permissive terms. And those works have been shared
9 around the world with every type of intellectual property
10 you can name 1.1 billion times plus. Our latest count in
11 2015 identified over 1.1 billion licensed works in the
12 world.

13 And what's interesting about that, and I was at
14 a meeting in Silicon Valley with a VC there, and I told
15 him that number, and he said, well, is a billion a lot?
16 And I thought only in Silicon Valley would someone look
17 at me say, is a billion a lot of something. But it's a
18 fair point. And in the scope of copyrighted works, a
19 billion is not a lot. But what's notable is that in
20 every single one of those cases an individual or an
21 institution chose to share, which is not the case in
22 copyright, where it's automatic.

23 And, so, I think my opening reference is that
24 we need to make sure that we're designing something that
25 is for everyone because everyone now holds copyright.

1 Every one of us is a copyright holder, and many of us
2 created works already this morning on our way here with
3 our cameras or whatever. And, so, because of that,
4 because of that nature, this room is actually the
5 minority.

6 Those who choose to exploit their works are the
7 minority in that discussion, which is not to say that
8 those issues aren't relevant. I'm not saying that at
9 all. But it's just to say that we need to make sure we
10 design a thing for everybody -- both those who wish to
11 commercialize, but also those who might not.

12 And, obviously, our interest is and our focus
13 is on those who may wish to commercialize. We offer
14 licenses that retain the commercial rights for the author
15 but also for those who wish not to. And when you look at
16 the proliferation of content on the internet, it is
17 predominantly that, not that which is retained -- where
18 all the rights are retained.

19 I thought about a couple of lessons from
20 Creative Commons when George was talking about the
21 incentive structure. And one of the things we learned in
22 the early days was that one of the largest incentives is
23 not commercialization, at least for those who choose us;
24 it's attribution. And in the early licenses, the cc
25 licenses had a set of licenses that allowed you to remove

1 your attribution requirement. And those licenses were
2 barely ever used and were deprecated within the first
3 number of years.

4 Creative Commons will celebrate 15 years, our
5 anniversary, this week. And, so, 15 years later, all of
6 the licenses require attribution because what we know is
7 that creators want it very much. And when you look at
8 the communities where people share content freely, the
9 place where they get into fights is mostly about
10 attribution. If you've ever been a Tumblr user and
11 watched what people fight about, mostly they just fight
12 about the time that the work got reposted and then the
13 attribution got lost or left out or scraped out. And
14 those are also the fights on Reddit and also the fights
15 on -- in various places.

16 So, you know, I think those -- that incentive
17 structure is important. So commercialization, one very
18 important incentive, but also attribution. And the thing
19 we hear more and more is how can I find out where my work
20 went, how can I find out who used it, not necessarily to
21 exert my rights, but just to know because I chose to
22 share and I want to know where it went. And, so, that
23 one comes up a lot.

24 The other is a comment that Nathan made about
25 work flows, sort of implicit in his comments about

1 embedding in existing work flows. And one of the things
2 I found interesting in some of the things Blockai did
3 earlier this year was talking to people in the platforms
4 where they are sharing content, even platforms where
5 rights information is either not there or very rarely
6 mentioned -- Twitter, for example.

7 And, so, I think that's interesting, and I
8 think the success of Creative Commons relied very heavily
9 on the idea that we were inserted into work flows where
10 you choose to apply a Creative Commons license primarily
11 by using a tool that you already use where it's embedded
12 -- Flickr, YouTube, SoundCloud, Wikipedia. It's baked
13 into the platform. You don't have to go somewhere.

14 And I think that's a lesson that we could take
15 away, which is if we want that information to exist and
16 to be shared in registries, we need to go to where the
17 users are and where they are creating and be in those
18 places, rather than saying and now go to the USPTO
19 website and file this form and fill out this information.
20 So I think that's really important.

21 The last piece -- I just want to comment on
22 this -- who should lead. I think there is absolutely a
23 place for government to play a role in this. No one
24 worries about the records at the DMV vanishing, and I
25 think there's a place for a trusted organization with a

1 legal responsibility to play that. But more importantly,
2 for me, is that whatever we do that it be an open
3 standard so that we don't have -- that we don't forget
4 the lesson of the internet, which is that it didn't
5 really light up until it was baked around open standards
6 where anybody could show up, anyone could build, as long
7 as they had the language and the tools in order for those
8 things to start to talk to each other.

9 And the interoperable connected web that we've
10 had and all of the benefits we've received from it came
11 from and out of the ability for anyone to show up, any
12 business, any individual, and know the rules of
13 engagement and know the standards. And, so, if we have
14 100 competing standards, which would be an understatement
15 of the number that we have today, you know, the old line
16 if you want to -- you know, if you put seven people in a
17 room with seven standards to create a new standard,
18 you'll come out with eight standards. I think we need to
19 be careful that we have an open standard that we all
20 agree to before we get too far down this road or else it
21 will just be a bunch of competing standards that don't
22 talk to each other.

23 MR. GRIFFIN: So your remarks remind me of
24 Daryl Friedman, my friend at NARAS, the National Academy
25 of Recording Arts and Sciences, says artists want cash

1 and credit, so that double entendre works. I really like
2 your goal. I think what you stated succinctly was a
3 useable commons powered by collaboration and gratitude.
4 So that says something.

5 Now, Greg, you know we've saved you for last in
6 this list here because I'm especially fond of anyone who
7 comes here from the New York Public Library. A librarian
8 showing up in our midst is a fantastic thing. And, so, I
9 want to hear more about these standardized approaches
10 that you're taking to cultural heritage because they
11 maybe are a little outside of our mission of rights and
12 ownership information, but they seem very, very important
13 nonetheless.

14 MR. CRAM: Well, and, in fact, that's exactly
15 what we track. So the -- our library, the New York
16 Public Library, is made up of 92 locations, and we have
17 over 51 million objects in our collections. We're
18 collecting what much of the people in this room are
19 producing. So we have a lot of assets in our collection.
20 The copyright status of those assets is variable. We've
21 been collecting for over 100 years, and we collect all
22 the way from things that are being created today all the
23 way back to stone tablets that have hieroglyphics on it.
24 So we collect a whole variety of things.

25 And for us, we've been digitizing more and more

1 works. We have about a million and a half digitized
2 assets at this point in our repository, and managing a
3 million and a half assets for us with such a varied
4 copyright status and lots of different issues around
5 those became unwieldy pretty quickly when we were
6 starting. So I've been at the library for six years, and
7 my job has been to document -- research and document the
8 copyright issues, the rights issues around assets in our
9 collections so that we know what we can do with those
10 assets in the first place.

11 So we've built a rights database that helps us
12 track who owns what, if the thing is still in copyright,
13 and any kind of licensing restrictions or other kinds of
14 restrictions that have been placed on us. All that
15 information is great. I'm really happy to collect all
16 that information, build that information. We're doing
17 about 400 items a day at this point, analyzing copyright
18 status around those things, all great information to
19 have.

20 The problem is that our users are coming to us
21 and saying I see this thing on your website; what can I
22 do with it. And we didn't have a good answer to that
23 question for a long time. We just didn't have a way to
24 share the information that we've been collecting with
25 them, other than bibliographic data. But bibliographic

1 data, while nice, is not necessarily relevant to
2 copyright determinations.

3 So what we've been doing with
4 RightsStatements.org, with DPLA and Europeana, is trying
5 to address that question. When DPLA started the Digital
6 Public Library of America, which is essentially an
7 aggregator of --

8 MR. GRIFFIN: Can I stop you just for a second?

9 MR. CRAM: Yeah.

10 MR. GRIFFIN: Because you did spell that out,
11 could you tell us a little about your two sponsors?

12 MR. CRAM: Yeah.

13 MR. GRIFFIN: The DPLA and Europeana, because
14 maybe not everybody knows what those two are.

15 MR. CRAM: Sure. I'm used to library
16 conferences where everyone knows DPLA and Europeana. So
17 DPLA and Europeana basically aggregate metadata created
18 by libraries like mine --

19 MR. GRIFFIN: But they're different, right?

20 MR. CRAM: But they're different. One
21 represents the European libraries.

22 MR. GRIFFIN: Europeana?

23 MR. CRAM: Yep. And DPLA, the Digital Public
24 Library of America, represents libraries in the U.S.,
25 cultural heritage institutions in the U.S. So they've

1 been aggregating data about the assets that these
2 institutions have been making available online. So DPLA
3 at last count had about 14 million assets in its
4 database, so you as a user, instead of having to come to
5 the New York Public Library's website, you wouldn't
6 necessarily know to come to our site to find, you know,
7 information about a particular topic. You might instead
8 go to DPLA and be able to search all of the digitized
9 collections of all the libraries in the U.S.

10 The problem that we had, though, was of
11 those 14 million assets that were in DPLA, we spent a
12 quarter -- or about 23 percent of the words describing
13 assets, those words appear in the description field.
14 You would think that that's probably right. When we
15 describe an asset, we want to describe it. So it should
16 be the number one field where most of the words come
17 from.

18 As it turns out, that's not the case. The
19 number one field where words appear in the Digital Public
20 Library of America databases is not the description of
21 the asset but is instead in the rights statement field.
22 We have over 100,000 unique rights statements produced by
23 institutions like mine in this database, and for a user
24 encountering 100,000 different rights statements is just
25 meaningless to them. They have no idea what that means.

1 And many of the statements that we see in that database
2 are just incorrect. They're just flatly wrong, and they
3 just don't make any sense.

4 So DPLA and Europeana came together with help
5 from Creative Commons to start to be able to describe the
6 copyright status, one piece of this, in a very
7 straightforward and simple way. So we're going from
8 100,000 unique rights statements down to 12. And those
9 12 mainly and only describe the copyright status of the
10 asset. So when institutions like mine make a
11 determination about the copyright status of an asset, we
12 can pass that information along to our users in a really
13 clear and obvious way so that they can then make a
14 decision about how they use those assets.

15 MR. GRIFFIN: Well, thanks for the interesting
16 description of the fascinating work that you're doing. I
17 think it's really focused on the future of humankind,
18 improving our ability to live.

19 So I'm curious to ask the entire panel a
20 question and to ask you for your predictions, because
21 really I'm fascinated by the rate of change that occurs,
22 both with technology and with content. And in a way,
23 it's our goal to throw ahead of the runner, and yet how
24 fast is the runner moving? I mean, I look, for example,
25 at the sound recording industry of, say, 10 or 20 years

1 ago, and that amount of audio is uploaded to YouTube
2 before noon on the first day of the year.

3 And, so, things are changing very, very
4 rapidly, not just as to the exponential increase in the
5 amount of, say, UGC -- user-generated content -- but also
6 the changes that are happening in the computing platform
7 and storage as well. And, surely, we are in some ways
8 bound to commit the same mistakes that our predecessors
9 made 20, 30, 40, 50 years ago in not anticipating the
10 rate of change in our own industry.

11 I mean, for example, if you ask someone in the
12 sound recording industry how was it that you agreed to
13 the Red Book audio standard that had no conditionality
14 attached to its digits at all, they will tell you that
15 they simply decided that no one would ever burn their own
16 CD, that at these costs it would never happen.

17 And yet I recently took a spreadsheet and took
18 doubling of power and halving in price and applied it to
19 the first manufacturing plant, which was \$140 million and
20 about on schedule. Around the year 2000, people were
21 making them themselves for about a dollar.

22 So it could have been anticipated is my point,
23 and I'm wondering what you anticipate in terms of rate of
24 change. So, Jeff, for example, how many images -- and
25 already I think your point to me has been, wow, the

1 number of photographs that a professional photographer,
2 our average client, makes even in a day or an hour is
3 astonishing by comparison to, say, what George sees in
4 the sound recording industry.

5 So what do you see in terms of volume, in terms
6 of unusual challenges that we have to throw ahead of the
7 runner on to keep up with the exponential change that
8 technology brings us?

9 MR. SEDLIK: Well, that's a really good point.
10 You know, it's nice to compare these different types of
11 media and to -- and in my organization we look to all the
12 different types of media and what they've been through in
13 trying to create standards and registries and
14 identifiers. And we learn from that, but they're very
15 different as well. So you have to accept that there are
16 similarities but also accept that there are very
17 significant differences. Music is consumed in a
18 different way than photographs are consumed. When a
19 photographer goes out for a --

20 MR. GRIFFIN: Well, technically -- I'll just
21 interrupt for a second and say they're not consumed at
22 all. They were once consumed, but there's no less of
23 them once we've viewed them or no less once we've heard a
24 song. So we're not in the business of managing supply
25 against demand and dealing with consumption. We're now

1 in a service business that's entirely different than the
2 paradigm of managing supply versus demand. You know what
3 I mean? That's how much we're having to throw ahead of
4 the runner is that the whole industry is an entirely
5 different industry.

6 MR. SEDLIK: That's very cavalier of you, Jim.

7 MR. GRIFFIN: Well, it is. And I'm here to be
8 cavalier and to encourage the kind of clash because I'm
9 mindful that people watch car races for accidents and not
10 for easy trips around the track. So go at it, please.
11 They're waiting for you to create conflict.

12 MR. SEDLIK: Thank you.

13 MR. GRIFFIN: They want it.

14 MR. SEDLIK: So when I -- as a photographer or
15 a photojournalist or even a wedding or a portrait
16 photographer goes out for the day, they might create
17 between 1,000 and 3,000 works in a day. And for those
18 who are working every day, they could create 20,000 new
19 works each with its own copyright a week, and that -- and
20 some will create more, depending on the type of work that
21 they do. And, so, it's different than registering for an
22 ISBN, you know?

23 So when there's a cost involved in identifiers
24 and you have a photojournalist who makes \$30-\$40,000 a
25 year -- some make much more; some make less -- they can't

1 even afford the identifiers if they have to pay for
2 identifiers in any significant sum. So -- and then
3 getting those registered from within your work flow
4 becomes very important. So Nathan's point is excellent.
5 It has to be from within your work flow. It can -- and
6 that work flow can be at two different spots. That can
7 be -- and should be -- in the tools that the creator uses
8 to create. It should only be in the tools that people
9 use to distribute.

10 So you need to identify those works before you
11 distribute, hopefully, and then at least when you get to
12 that distribution point it's fantastic to be able to
13 identify them there. But what we need to do is not
14 create standards and registries that support our current
15 working models and the current licensing models. We need
16 to look to how things are going to be to the best extent
17 -- to the extent possible.

18 And in photography, we can see that -- where
19 that's most likely going to be is retroactive licensing,
20 licensing by the number of impressions and clicks on your
21 image, and you get pennies, and collectively that adds up
22 if you create works, you're going to get paid more
23 because those works are going to be more interested and
24 more people are going to see them, and you're still being
25 paid based on scope of use.

1 It's just different than how it is right now
2 where you go to a stock agency website or to a
3 photographer or to another source and you might select
4 from a bunch of menus as to how you're going to use it,
5 and then you collect a payment, and then you release the
6 image. And, you know, that same model almost -- you
7 know, there's smart contracts in the blockchain, et
8 cetera. It's going to happen a little bit differently.

9 You know, a really interesting example is I
10 know one company that works with those celebrity type
11 papers that just publish -- they publish kind of -- I
12 don't want to say trashy news, but let's just say they
13 publish at a very fast rate, and they don't even have
14 time to license the images, so they have deals with their
15 suppliers where after the images are used, they submit a
16 PDF of their -- of what they've just published to a
17 company that provides a service where they scan the
18 publication or read that PDF; they identify the images
19 that are in there; they determine how much is owed to the
20 various companies that are participating, and they pay
21 them because they can't license at the rate that's needed
22 in order to do this. But everybody does it by
23 permission.

24 So these types of new models are definitely
25 something that we have to consider. We have to -- also

1 have to consider that, you know, in terms of registries,
2 which is what this panel is about, I think we need to
3 differentiate between a copyright registry and a rights
4 registry. You know, a copyright registry can identify
5 the different parties that are -- that have claims to the
6 image, and that could be the creator or creators, there
7 can be multiple; the owners of the copyright, it can be
8 multiple; the licensors; and often in the photography
9 industry, you can have a thousand license -- authorized
10 licensors for one image. And then licensees wish to be
11 identified as well in terms of the -- they want to claim
12 the rights that they have to an asset.

13 So you have all these stakeholders in an asset
14 that need to be identified, and in photography, you know,
15 the concept of mailing out, you know, putting the fact I
16 own this image or putting a copy of the image in an
17 envelope, sealing it, sending it out and getting it back
18 in the mail like you would do if you were about to show a
19 script to a motion picture production company for
20 consideration, it doesn't really have relevance in
21 photography because the -- maybe less than 1 percent of
22 the copyright disputes are, hey, I created this image;
23 no, I created this image; no, I created this image. It
24 doesn't really happen.

25 It's not a dispute about who created it; it's a

1 dispute over do you have the right to make use of it.
2 You know, I can stand next to you shoulder to shoulder at
3 Mount Rushmore and we each hold up our cameras and take a
4 picture, and both of our pictures are identical. You
5 don't have any rights to my image, and I don't have any
6 rights in your image, but we both own copyright in our
7 images.

8 So, you know, in this photography space, you
9 really have to -- another reason that it's different than
10 other media is there are so many variations on the images
11 that you can't begin to use "embed" codes out -- out
12 there to distribute images rather than actually
13 distributing the images themselves because people are
14 just going to copy the images and distribute the images,
15 and now the tie between the image file and wherever the
16 source of information is as to who owns it gets broken,
17 then you try and use image recognition to retrieve
18 information about the image, to link it back to the lost
19 identifier, and that image recognition is going to go
20 back to all kinds of people who don't own the image.

21 It's going to go back to a version of the image
22 that's possibly not owned by the person who registered
23 another version. There's a lot of complexities just as
24 in music, and I know that, you know, we all like to think
25 that our industries are unique in some way, but we -- and

1 there are a lot of similarities again, but again, in
2 images, when you really dig down deep and you find things
3 like the steganography, digital watermarking, is easily
4 lost as well.

5 It's come a long way and it's very powerful,
6 but it's easily lost as well. So you watermark; you put
7 your ID in your image, in the header of your image file;
8 you digitally watermark your ID into that file; and then
9 also you have the ability to use image recognition to get
10 back into the ballpark of connecting your image back to
11 your ID, and you have to do it at scale. So it's not
12 just one person sitting there at a computer going, hey,
13 who owns this? It is a machine talking to another
14 machine saying we have these 500,000 images in our
15 database and we need to know who owns them now in
16 subsecond time.

17 MR. GRIFFIN: Ryan, you've got some thoughts
18 here? Yes.

19 MR. MERKELEY: Yeah, I mean, I think there are
20 two -- two challenges. And you asked the question,
21 where's the ball going. And, so, I'll guess.

22 MR. GRIFFIN: Yeah, give us a guess.

23 MR. MERKELEY: And, so, for me, there's sort of
24 two categories. One is identifying and tracking the
25 provenance of and copyright status and metadata of works

1 made everywhere, accessible everywhere. And then the
2 second problem is commercialization. I think the second
3 problem is actually going -- doing actually quite well,
4 it's solving itself. And if I predict the future, it's a
5 bunch of closed models that -- where you never actually
6 handle the content directly.

7 You look at Netflix; you look at the movie
8 industry and downloading and streaming and music and
9 streaming and books. I don't actually own the copies on
10 my Kindle, and like those who want to commercialize are
11 going to figure this out, and it's going to be largely in
12 closed systems where if you want that content you have to
13 go into the silo. If I look at where the ball's going,
14 that's probably that.

15 The more important or the more interesting
16 thing for us, you know, for me, is about actually how we
17 categorize, collect, and identify the grand sum of human
18 knowledge, which includes those copyrighted,
19 commercialized works, but also includes a vast majority
20 of other things that are not that. And we're already in
21 a place where the orphans are going to massively
22 outnumber those with parents in terms of the content
23 world if we don't figure this out because of stripped
24 metadata, because of the free flow of content on the web.

25 And, so, this is a problem that I care very

1 much that we figure out how to solve. I think a registry
2 could do that, but I think we should also remember that
3 copyright is not the hammer we need to hit the
4 commercialization nail. Like DRM's probably going to
5 solve that problem better than copyright, and it --
6 frankly, I think it's doing a pretty good job of it right
7 now, not because I like it, just because it's working.
8 And, so, if you ask the question, where's the ball going,
9 that's where I think it's going.

10 MR. GRIFFIN: It's interesting. I have a
11 friend in the U.K., Paul Sanders, who runs a company --
12 you probably know him -- and he says that 80 percent of
13 the materials that he sees are not worthy of copyright
14 administration. They simply -- the cost of administering
15 them exceeds the potential rewards. And by the way, he
16 calls the bunch of you post-trust solutioners, and I like
17 that phrase, you know, the idea the trust is gone and the
18 rest of us are trying to come up with solutions for that.

19 Bill, I know your company was born out of
20 adjustment between actuarial copyright and actual. In
21 other words, the notion that, say, radio usage would be
22 based on sampling or restaurant usage. And, so, your
23 company, Music Reports, came up with granular and precise
24 solutions that grew out of the Buffalo decision as it
25 related to ASCAP and BMI in the music industry. So

1 you've got some experience with this. Where do you think
2 the ball is going, and do you think you guys are up to
3 the task, or is our future more actuarial copyright and
4 less actual granular counting?

5 MR. COLITRE: Well, it's an interesting
6 question because I think I can draw a line between many
7 of the ideas that we've already discussed this morning.
8 I mean, as granular as we've been able to solve the
9 problem, I think the scale of it is -- where the ball is
10 going is ridiculous. Jeff was talking about
11 photographers taking a thousand photographs a day, but
12 everyone's a photographer. My 13-year-old daughter, if
13 she gets a pair of Snapchat glasses, is going to take
14 tens of thousands of images a day.

15 MR. GRIFFIN: To Ryan's point, yeah.

16 MR. COLITRE: And any one of them that she, you
17 know, happens to witness a specific event and it becomes
18 a famous photograph could be worthy to Paul's point of
19 copyright protection. But the vast majority of them
20 never will. And as much as Mr. Manepalli was suggesting
21 that we must reduce the friction in registration and
22 identification as much as possible and build it into work
23 flows to other points that were made, all of that will
24 help to make it possible for commercialization after the
25 fact, to another point that was made, to reliably track

1 back to the owner of and the correct recipient of
2 participations or royalties from that thing.

3 Someone mentioned photographs in celebrity
4 magazines that are monetized after the fact through deals
5 that are set up in advance. That's, in fact, the way
6 performance licensing is done in some television cases.
7 There are many publishers who have deals with certain
8 channels that are set up in advance to say we are going
9 to license on certain terms and certain cases, and then
10 after a period of time, they look back at what works were
11 actually used and how often, and then the settlement for
12 that payment is made. Settlement always takes place, you
13 know, in the future, after, you know, tracking and
14 monetization has happened. I think what everyone is
15 after is condensing of that time to improve the velocity
16 of royalties.

17 MR. GRIFFIN: Well, I'm committed to a timely
18 end to all of this, and yet I don't want you to leave
19 anything on the stage. So I'm going to start with Ryan
20 at the end and say take a half a minute or so --

21 MR. LANDS: Can I talk about where things are
22 going?

23 MR. GRIFFIN: Oh, yeah, no, we're going to come
24 straight --

25 MR. LANDS: Oh, okay.

1 MR. GRIFFIN: -- oh. Did you want to follow up
2 on this in hot pursuit?

3 MR. LANDS: Yeah, where things are going.

4 MR. GRIFFIN: Please do, and then we'll be
5 quick about it, and then we'll finish it off.

6 MR. LANDS: Yeah.

7 MR. GRIFFIN: And let them have a timely move
8 forward.

9 MR. LANDS: So in terms of where things were
10 going, you said ten years or five years, future?

11 MR. GRIFFIN: Well, I think, you know, you can
12 pick your time frame. And by the way, in yours, I'd
13 guess 40, 50, but in mine, I'm guessing maybe 10.

14 MR. LANDS: I think a lot longer.

15 MR. GRIFFIN: No, I love it. You were born on
16 EverQuest, my friend.

17 MR. LANDS: I think I'm optimistic, 100, 200
18 years maybe.

19 MR. GRIFFIN: And I love that.

20 MR. LANDS: Or longer. But what I think is
21 interesting with copyright, and the more I've been, you
22 know, starting to, you know, get into this and is it --
23 it's interesting, in most industries, there's a, you
24 know, a killer product or a brand that kind of represents
25 that, where if you think of that word, some company comes

1 to mind, like if you think of search, Google comes to
2 mind; if you think of social network, Facebook comes to
3 mind.

4 MR. GRIFFIN: By the way, it wasn't always
5 true.

6 MR. LANDS: Yeah.

7 MR. GRIFFIN: There was a time we said
8 AltaVista if we were talking about --

9 MR. LANDS: Well, yeah, that's past.

10 And, so, but today, copyright is not cool.
11 Like young people don't know anything about copyright,
12 they don't think of having a copyright. And I think
13 there's going to be lots of options. Some people don't
14 want to make money; they just want attribution. Some
15 people want to make money. But I think there's an
16 opportunity to actually build a product that's so
17 seamlessly integrated in the things that people actually
18 start caring about copyright.

19 And that's the first brand that comes to mind,
20 and it becomes the thing when as soon as you create
21 something, no matter what tool you're using, that you
22 want to have that, right? It just -- of course you have
23 that. Why wouldn't you? And you actually start
24 collecting copyrights, right, when you create things.
25 But -- and so in the future I think there's actually an

1 opportunity, whether it's I build that or somebody else
2 builds it, there's an opportunity to build the brand that
3 represents copyright, that when someone thinks of
4 copyright, that's where they go. I -- having many
5 different websites and things like -- you know, that's
6 hard, and so I would love to, you know, pull standards in
7 and figure out a single standard, but, you know, we'll
8 see if that works.

9 But, yeah, I think there's an opportunity, and
10 there's room for things like Creative Commons as well. I
11 mean, so, I think what we're doing could really help
12 Creative Commons because, you know, people should have
13 choices. So as soon people create things, whether they
14 want to allow anyone to share it, that could be a default
15 setting with whatever creative tool you're using, that,
16 like, yeah, sure, tag the Creative Commons on there that
17 people can share this, give me attribution, where I want
18 to, you know, reserve it and make money. So, yeah.

19 MR. GRIFFIN: It's a good closing statement. I
20 want you to add your email address.

21 MR. LANDS: Oh, yeah. It's nathan@blockai.com.
22 It's block, A I, dot-com.

23 MR. GRIFFIN: Okay, good.

24 Ryan, closing statement; email address, please.

25 MR. MERKELEY: Sure. Well, I am. So I think

1 the most important takeaway is that we design something
2 that assumes everyone is a rights holder, not just those
3 that want to exploit the rights, and we create tools that
4 allow people to do both and that we do it in an open
5 standards way so that there are not competing standards
6 because this is a problem in the trillions-of-works
7 scale. We can't really afford to have that level of
8 complexity and then expect people to actually use it.

9 So I would just leave it at that. I think
10 that's the most important question, is who gets to be in
11 that discussion. And having users in this discussion, I
12 get, is admittedly difficult, but I think it's really
13 important and it's really the charge of those who are
14 designing these solutions to think about that.

15 And it's Ryan@CreativeCommons.org.

16 MR. GRIFFIN: Jeff, closing statement, email
17 address.

18 MR. SEDLIK: So because I'm going to forget, my
19 email address is js@plus.org, js@plus.org. And, you
20 know, summing up, I would encourage anybody in this room
21 who's involved in creating, distributing, preserving, or
22 using visual works to contact us and to become involved.
23 We are an open organization. The door is open to
24 everyone to participate, to have equal influence, and to
25 advance the -- both our standards, which are continually

1 under development, and our registry system to make sure
2 that it helps everybody concerned.

3 And I would further encourage acceptance of the
4 concept that, you know, if -- what we're trying to do is
5 to avoid a situation where you have a proprietary
6 registry that then gets purchased by a larger company
7 that then gets controlled and used competitively against
8 others.

9 Now, you know, this country is all about
10 competition. All we are is a box of information. You
11 ask it questions about ownership, and it answers those
12 questions. And all the commerce can happen outside of
13 that box, but the stakeholders have equal control over
14 how the box is used.

15 MR. GRIFFIN: Greg.

16 MR. LANDS: You can be a for-profit and do that
17 as well, by the way.

18 MR. SEDLIK: Yes.

19 MR. LANDS: Yeah, with a decent ledger.

20 MR. FIORAVANTI: And I think there are -- this
21 is an interesting conversation. I think the -- you know,
22 the area of UGC and where you draw the line between
23 what's in a registry and what's not in a registry is a
24 very interesting conversation and one that's not going to
25 be solved today probably.

1 But in the future as, you know, as these
2 registries are built, I don't think you could go in with
3 the supposition that you're actually going to be able to
4 predict the future because, you know, things will
5 constantly change. And, you know, whatever is built is
6 just going to have to be adaptable, you know, to the
7 future, to the point where you're not painting yourself
8 into a corner.

9 I think that's one of the things, you know, in
10 managing rights at Discovery we're constantly looking at
11 is, you know, driving in a direction where we don't paint
12 ourselves in a corner and put ourselves in a place where
13 we have to redo whatever has been created. And, you
14 know, there's lots of smart people looking at this, and
15 I'm sure they'll figure out the ultimate solution to
16 that.

17 My email address is greg_fioravanti
18 @discovery.com.

19 MR. GRIFFIN: And remember, he acquires and
20 commissions content.

21 Greg Cram.

22 MR. CRAM: Yeah, so Paul in the last panel said
23 libraries are leading the way, and I couldn't agree more.
24 In fact, I think we're leading the way in the way that we
25 share data. The first panel talked a lot about things

1 that libraries have been thinking about for a long time:
2 how do you describe an asset, how do you put a unique
3 identifier on that asset. Those are things that we've
4 been doing for a long time.

5 So where we think things are going to go, the
6 way that we share data, is going to become through an
7 open links data model. No one has mentioned open link
8 data, but that's where we think things are going to go.
9 Instead of having a single silo of where the single
10 registry of rights data live, we instead think it's going
11 to be living everywhere.

12 So those kids who are creating lots of Facebook
13 posts today and taking photos, the information about
14 those, the unique identifier that's associated with that,
15 won't necessarily live in a registry down the street at
16 the Copyright Office. Instead, it will be online, and it
17 will have to be open in a way that we can all use that
18 data, access that data, and then rely on that data,
19 hopefully, to either make data -- more content available
20 to our users or for many of you to commercialize that
21 data and commercialize the asset itself. But having an
22 open standard where we share that data is really
23 important for us, not only in the short term, but in the
24 long term too.

25 MR. GRIFFIN: Email.

1 MR. FIORAVANTI: GregCram@NYPL.org.

2 MR. GRIFFIN: Wouldn't it be great if the
3 public library could issue a fine for standards being
4 overdue? That would be great.

5 Bill, close us out here on behalf of Music
6 Reports with your email and a little statement.

7 MR. COLITRE: Yeah. I guess I agree with Mr.
8 Merkeley's claim that there will be multiple marketplaces
9 for different types of works. There won't be ever one
10 registry, and there probably won't be even one registry
11 in any particular silo, but depending on the market for
12 particular types of works, there will be marketplaces
13 built around those that are based on registries that are
14 based on identifiers that are necessary for that type of
15 work. And that will create more fluidity in the market,
16 and granularity is achievable in those kinds of spaces.

17 And that kind of granularity can provide
18 assurance for rights users -- assurance of risk for use
19 and assurance to rights owners of prompt payment.

20 MR. GRIFFIN: Email.

21 MR. COLITRE: bcolitre@MusicReports.com.

22 MR. GRIFFIN: Give them a hand. I thought they
23 were terrific.

24 (Applause.)

25

1 MORNING PANEL SESSION 3

2
3 **Marketplaces: How is the information in the**
4 **registries used to enable commerce?**
5

6 MR. KLARIS: Okay, I think we're going to get
7 started, even though a few people haven't quite found
8 their seats yet. I'm Ed Klaris, and I'll be moderating
9 this third and final discussion, which I think we're all
10 going to take as the third and final step along the path
11 that we've been describing today: identify, register,
12 and now marketplace. And I'll start by saying that we've
13 got the most diverse panel of the morning, which is nice
14 to see. Thank you, USPTO.

15 And I'd also like to start by saying, you know,
16 one thing that government can do and does do and this
17 particular -- the Department of Commerce does is they
18 track IP-intensive businesses and have done a number of
19 studies that tell you quite how big IP is in the United
20 States. And so in case you missed the 2016 -- the
21 September 2016 update to their IP-intensive industries
22 reports, it was the big -- the big report came out in
23 2012. From -- as of 20 -- end of 2014, IP-intensive
24 industries make up 38.2 percent of the U.S. GDP. It's
25 huge.

1 And trademark being the largest, as you could
2 probably imagine, and copyright being the smallest, but
3 still all immense. And copyright, which has about 5.6
4 million people who are employed exclusively in the
5 creation of copyright, is the industry of patent
6 copyright and trademark that has by far the most self-
7 employed creative people.

8 In all the -- in the other areas, it's
9 primarily corporations that are the creators or the
10 authors in the end, and in copyright, it's the individual
11 creators who retain their copyright in most cases, not
12 always, and some of the valuable, biggest pieces of
13 copyright IP are things like movies, where studios
14 acquire all rights. But that said, the U.S. Department
15 of Commerce has done a great job of kind of indicating
16 the size and scope of this industry and the kind of
17 importance that a question of what is the digital
18 marketplace potential is really -- it's very much
19 crystallized in what they do.

20 And I think we've heard some today about those
21 who don't really care about commerce and those who are
22 creating for creative sake. That's great. I think for
23 today, for this panel, we're going to talk primarily
24 about a marketplace, so one where people want to exchange
25 for consideration of some kind or another.

1 Let's start by having each one of you -- you're
2 all -- everybody has the bios. So each one of you just
3 state your name and what it is that's important to you in
4 very -- very briefly, just so that we can level set on
5 what perspectives you each represent. Why don't we start
6 at the end, Benji, and work down this way.

7 MR. ROGERS: Hello. Hi. My name is Benji
8 Rogers. I'm a recovering musician. I spent most of my
9 life making music, playing shows, and I founded a company
10 about eight years ago called PledgeMusic to help artists
11 monetize the creation of their work, like a kickstarter
12 for music but with some other bells and whistles.

13 And about a year and a half ago, two years ago,
14 I started to try and understand what happened once an
15 artist would leave our platform and go into the digital
16 ecosystem. And what I discovered was shocking and
17 terrifying. At the same time, I also got into the
18 blockchain. I started to read up on it. George's
19 articles published; he really kind of, you know, paved
20 the way for an understanding as to how this could work in
21 the creative industries. And then I decided to propose a
22 concept around the creation of a media format that would
23 write into the blockchain as it's updated. And we
24 created a public benefit corporation called the
25 dotBlockchain Music Project, which we're working on as we

1 speak.

2 So the concept really -- and the way it relates
3 to marketplaces is that if you have a format, which
4 writes into a blockchain database, you can have multiple
5 databases interoperate with that through a series of
6 plugins. And that's really the concept that we've tried
7 to build. We've built phase one; next is two and three.
8 And it does so by applying a minimum viable data standard
9 to create interoperability amongst all the marketplace
10 players. So, yeah, that's what keeps me up at night.

11 MR. KLARIS: Is it just for music, or is it for
12 any kind of content?

13 MR. ROGERS: I think it died. Oh, there we go.

14 It's for music at the moment. We've been
15 approached by multiple other industries to kind of
16 develop the same thing for books and movies, et cetera.
17 Music is the lane I know the best, and it's the one I
18 think that could serve as the beachhead to get the rest
19 of them through because if you look at the visual
20 formats, they largely -- in particular going into VR,
21 which I think is going to be a huge industry in the next,
22 you know, three to four years, the ability for a VR
23 company to scale on the music infrastructure that's there
24 today is bleak, to say the least. It's very, very
25 difficult to achieve.

1 And, so, if we solved this kind of underlying
2 plumbing issue, then the work can be -- by making each
3 work interoperable and usable across a broad ecosystem,
4 you can lead the way through music. And my goal for the
5 company in its entirety is that the music industry
6 together creates a format and standard and offers its
7 work to the digital service providers in such a way that
8 rights holders are -- ownership is respected, and
9 permission and obligation lives and is hard-coded into
10 the music itself, into the files themselves.

11 And the removal of rights information from the
12 files would render them basically useless in
13 participating players in ecosystems. So today, we -- and
14 the gentleman from Creative Commons really made an
15 amazing point about the workflow and how that works. I
16 believe that the difference between what was and what is
17 today is that creatives use computers, and the moment
18 that things go wrong is when they export from a digital
19 audio workstation because they create a file which has
20 zero reliability to it. The second I create a .wav file,
21 an .mp3 and I send it to my drunk bass player's
22 girlfriend or boyfriend, it's just out there. And the
23 ability to alter all of its genetic information is where
24 things go wrong.

25 If we were to build a workflow out of the

1 studio, and I think the same would apply for, you know,
2 Avid Pro Tools as it would for, you know, large video-
3 editing software. If you create a stage in there in
4 which you anchor certain minimum viable data points into
5 the file itself that can never be removed, then as you
6 grow, information -- you know, it all -- it is all
7 bundled succinctly within the file itself. So wherever
8 that file is transported, the blockchain reference to its
9 ownership can always be viewed and verified.

10 So the point about creating a thousand
11 different databases is very valid. We have, I think,
12 4,000 unofficial ones; 200 official ones. And we don't
13 need another one. We need them all to speak to each
14 other. And I believe that a format is the way in which
15 they can do so.

16 MR. KLARIS: Okay, thank you. We're going to
17 try to treat this as an introductory statement, just so
18 that we can then get to questions.

19 MR. ROGERS: Sorry.

20 MR. KLARIS: We're going to get a chance to --
21 no, not to be critical, that was interesting, but, Trent,
22 go ahead.

23 MR. MCCONAGHY: Hi, everyone. Yeah, my name is
24 Trent McConaghy, and I'm a Canadian that now lives in
25 Berlin. Kind of where I come from is I spent almost 20

1 years doing large-scale distributed AI systems for
2 designing computer chips for the likes of Apple,
3 Qualcomm, Nvidia, so any of these folks. And that
4 industry actually has a lot of litigation, so
5 intellectual property is incredibly important. So in the
6 companies that I worked in before, I did 25 patents, so
7 after this meeting, I'm going to go upstairs and see if I
8 can find the physical copies.

9 Anyway, but I -- yeah, exactly, right? So, and
10 -- but in 2013, I really started getting into the
11 blockchain technology a lot. And what led me there was
12 some core values, actually. And the core values were
13 around creators aren't getting compensated, and my
14 personal data, I've lost the control over it, right? So
15 those two things. I have many artist friends, digital
16 artists, et cetera, and they were having trouble feeding
17 their family, despite having world-class work displaying
18 at places like (inaudible) and so on.

19 So my cofounders and I, we started a company
20 called Ascribe, and we said what if you could own digital
21 art the way that you own bitcoin. And we pulled on that
22 thread, pulled on the thread and realized that actually
23 it was a possibility. And the key was leveraging
24 copyright, leveraging with the right legals across
25 multiple jurisdictions.

1 So we built that starting in 2013, beta 2014,
2 and rolled out. And now there's thousands and thousands
3 of users, tens of thousands of works on this. Along the
4 way, we found other issues, and one of them was what
5 about linking the works that are out there back to the
6 actual metadata. And, so, we built a complementary tool
7 called WhereOnThe.Net that actually does that. You can
8 actually see the provenance of copies for our works, so
9 you start to get some control over what you did.

10 But we ran into two problems. One was the
11 flexibility of the licensing. People were asking what
12 about, you know, slicing and dicing; what about
13 fractional owners and all this -- fractional ownership.
14 And the other one was scale. We initially built in a
15 bitcoin blockchain, but they call it bloated and it's
16 only holding 50 gigabytes, 70 gigabytes, right? I can
17 fit more on a thumb drive.

18 So we -- in the last year and a half we spent
19 the time solving that by building two things -- taking up
20 protocol that actually extends the best of these existing
21 protocols. We've had people from PLUS, from DDEX, et
22 cetera out there. What if there was a unified protocol
23 of all that? Well, it turns out the Copyright Hub folks
24 did that, something called LCC. We took that, and we
25 actually made it blockchain-friendly with a community of

1 people, about ten different organizations throughout the
2 world, from Mycelia, IPFS, many, many. And now there's
3 this protocol, the specification, blockchain-friendly
4 called COALA IP.

5 The second thing is basically what we built is
6 starting with the idea of blockchain but leveraging the
7 great work on distributed databases, MongoDB, et cetera.
8 This is the stuff that powers the internet. And we've
9 created essentially a database over the internet. Right
10 now, there's the worldwide web. It's a file system for
11 the internet, but there hasn't been a database, yet we
12 talk about needing structured data, all these things.
13 Well, that's what a database is for.

14 So we've actually been rolling out something
15 called IPDB -- Interplanetary Database, which is actually
16 a decentralized database. It's a non -- governed by a
17 nonprofit foundation. And overall, it is basically
18 something that goes to web scale to hold all this
19 metadata, but it interoperates. It's speaking the
20 language of COALA IP, which can talk to all the other
21 databases. And under the hood, the software that runs it
22 is something called BigchainDB.

23 So overall, once again, the goal is for
24 compensating creators, controlling my own personal data,
25 and seeing what I want to see with licensing others'

1 works. So that's what's driving me. That's what gets me
2 up in the morning, to basically help to rewire the
3 internet at a fundamental level with this shared global
4 database for the planet.

5 MS. KLIEMANN: Hi, I'm Kris Kliemann, and I'm
6 going to, I think, slow it down just for a minute,
7 because I've decided that I will represent the book
8 publishing industry, right? Which when we were talking
9 about volume before and the number of photographs that
10 are taken daily, we're like, you know, the snail that's
11 going to be mugged by a turtle. And a year from now,
12 when the snail police show up, I'm going to say "I don't
13 know what happened; it happened so fast," right?

14 So it's interesting to think about. I know Jim
15 said, you know, we don't consume these things; they're
16 not used up when we're done. And books get consumed in a
17 very different way, let's say, than a photograph -- flip,
18 flip, flip, flip, flip -- through my account or music.
19 But it is changing a lot for us. So in the years that I
20 have been mostly on the licensor side, my goal has always
21 been to be able to create smoother ways. Let's just say
22 smooth. Smoother ways to enable monetization.

23 And in the olden days, when I first started, it
24 was having a nice notebook with a precis of an author
25 contract in front of me that said what rights do I have

1 and then a set of note cards that said what rights did I
2 license and a boss who would come into my office on a
3 regular basis and say he who sells what isn't "his'n"
4 goes to prison. Right? So you had to pay attention.
5 That was instilled in me.

6 And now we do have a big increase in volume,
7 and we do have a digital world where people are quickly
8 creating more and quickly wanting to reuse. And, so,
9 building the tools internally to say what rights do we
10 have and building the tools that enable a re-user to get
11 those rights is a big focus of mine. So I'll leave it at
12 that.

13 MR. KLARIS: Sam.

14 MR. GILCHRIST: Hi, I'm Sam Gilchrist, and I'm
15 the founder of Plura Vida Ventures, which is a rights
16 tech and/or financial settlement company. We're invested
17 in about three or four different startups focused
18 primarily on video and audio distribution and the
19 settling of the transactions that occur from uses of
20 those types of properties -- or excuse me -- that type of
21 content.

22 The thing that I am focused on and have been
23 working on is for I guess the better part of about 10 or
24 15 years it's both because I've worked on the rights
25 licensing side of the house; I've also worked primarily

1 on distribution and now mostly on financial settlement is
2 how to be most efficient in making all three of those
3 things work. There have been so many promising
4 technologies that have come along sort of enabling
5 distribution from private CDNs to, you know, the
6 leveraging of the public internet for additional over-
7 the-top applications that are being deployed to now we
8 see all kinds of potential around micro-transaction
9 settlement with blockchain and so forth.

10 Our focus with our clients has been around
11 adopting those technologies that make the most sense
12 inside of our settlement engine. Our technology is
13 privately available on public nodes to make it easy for
14 us to integrate with platforms like YouTube, like
15 SoundCloud and so forth and so on, in order to be able to
16 keep track of what's happening with the content that's
17 being distributed for our customers and to figure out who
18 owes who what through a fairly flexible deal management
19 technology.

20 The things like DDEX are already exposed to our
21 platform. It's a very proprietary -- excuse me,
22 proprietary key-value pairs and say this asset owned by
23 this owner, oh, in this particular territory, and so
24 forth and so on.

25 The other thing I worry about is the creator

1 themselves or let's just say the entitled parties
2 involved in the initial creation process because there's
3 usually more than one. We tend to invest heavily in the
4 technologies that we build, but we sell at a very low
5 price point because we're not trying to tax those
6 distribution channels. We know that the problem is
7 massive. We see it in UGC base models; we see it in
8 premium models.

9 What we're trying to do is make sure it's as
10 simple for the widest variety of distributors and content
11 owners so that it doesn't cost a lot in order to be able
12 to do the right thing. The problem we see is that
13 companies can't afford to do the right thing, so they do
14 the wrong thing, and they do it often. So that's kind of
15 where we are and happy to be on the panel.

16 MR. KLARIS: Thank you.

17 Caroline?

18 MS. BOYD: Hi, I'm Caroline Boyd from the
19 Copyright Hub Foundation, and I see I'm down here as the
20 U.K. Copyright Hub, and what we're doing is an initiative
21 that did start in the U.K. and is based in the U.K. but
22 is applicable anywhere else. And we're really happy to
23 share any of our findings or anything that we have. What
24 we do is open source. We're not for profit. And if I
25 use the word "neutral" once, I'm going to use it about

1 5,000 times because that's what we've had to learn to be.

2 We do two things. We're really about making
3 the process of copyright a lot easier, and I think that
4 is our mission. The way we do that, we have a strand
5 which is about creating a forum for people to get
6 together and make it easier. That's fine, that's not
7 what's going to be the topic of today. And also there is
8 a software services strand that I'm going to speak about.

9 What that is aimed at, and this has been
10 architecture -- when I joined the Copyright Hub a couple
11 of years ago, it was a long way down a road that was
12 started when the government commissioned a report in 2011
13 on the use of copyright in the U.K. We have been
14 partially funded by government, but most of our funding
15 to date has come from the creative industries.

16 And I can tell you that if your funding comes
17 from the creative industries, you are not going to build
18 software that is going to tread on their toes. So we
19 have had quite a journey of looking to see what we do
20 that is most useful to them. And where we are is if you
21 can find something on the internet anywhere, whether it's
22 used legally, illegally, just been put up there, what we
23 want to be able to do is identify it -- the first panel
24 really important to us. If it can be identified in any
25 way, which may be a kind of traditional ID like an ISBN,

1 an ISLC, it might be a watermark we've talked about, or
2 it might be a digital fingerprint, very important
3 nowadays, both of those, that have come up before.

4 Then what we provide is the ability to track
5 that back to a service. That service could do anything.
6 The default service for us is that it can tell the
7 consumer, end-user, whatever you would call them, how
8 they may use this as the creator wants them to use it or
9 as the person who's -- or organization who's offering a
10 license wants them to use it.

11 It's machine-to machine, and in this way,
12 licensing is automatable. So when there is commercial
13 value -- value is not always commercial -- a lot of value
14 is about credit, it's about the two-way communication
15 between the user and the creator as well. But where it's
16 commercial, it means you can automate low-level
17 licensing, small transactions, and that makes a heck of a
18 difference. That is an entirely new market that at the
19 moment hardly gets scratched. That's a lot of money.
20 Quite a bit of work's been done on the size of that
21 market. 2.2 billion was mentioned in the U.K. I believe
22 that is over 10 years, so we shouldn't get too excited,
23 but that's significant.

24 What more should I say about it? No, I think
25 I'll probably just say that's it. Thank you. Sorry, Ed.

1 MR. KLARIS: Sure.

2 MR. BARBIERE: Thanks. About 20 years ago, I
3 got involved in a registry that set a very important case
4 study that I think music and many other industries could
5 learn from. It wasn't more than 20 years ago that you
6 had a phone number that was almost assigned to your
7 geographic location with a fixed service. You couldn't
8 port it; there were no -- excuse me, there were no mobile
9 devices. You moved, your phone number changed.

10 And in 1996, I began working alongside a
11 company called New Star, which was a division of Lockheed
12 Martin, who was building a number portability registry
13 that would allow you to take the asset, the phone number
14 that you owned, and begin moving with it. And in the
15 beginning, it was small movements. It was being able to
16 move down the block and take your phone number.

17 But then it began expanding to today where a
18 lot of what we're talking about in terms of content and
19 copyright-owned materials, whether it be a photo or an
20 image or a piece of audio, is actually moving through
21 those devices. And there's a registry underpinning all
22 those devices, and if you think about the billions of
23 transactions that go on hourly through these devices, the
24 registry that satisfies that is pretty impressive.

25 And we built a marketplace around that in 1997

1 called ArboNET, and it was the world's first
2 telecommunications trading exchange. We built it similar
3 to a NASDAQ-like exchange. We were told that the
4 telecommunications industry would never adopt it, nor
5 would they adopt the number portability system from New
6 Star. By 2004, we were managing 10 percent of all the
7 world's telecommunications traffic and number
8 portability, and New Star had taken off and today exists
9 as the standard for registries as far as I'm concerned.

10 And think about, you know, what they have to
11 deal with. They have to deal with multiple technologies,
12 multiple networks, multiple devices, movement, something
13 that started very local and now went national, and now
14 you can be reached anywhere in the world globally.

15 From that, I was fortunate enough to work with
16 the American Association of Advertising Agencies as part
17 of ArboNET, and we built out the Ad-ID registry, which is
18 still in place today as the registry that allows
19 advertising assets to be tracked through all the work
20 flows within the ad and marketing world.

21 In 2007, we developed the world's first music
22 rights management platform called Rights Router. It was
23 the first commercial platform for independent musicians
24 and labels to distribute content to e-tailers. And that
25 led to 2011 when I joined this company Dubset, which is

1 sort of the long way of getting there. But Dubset's
2 mission is to take the world's largest segment of
3 content, music content, which is derivative works,
4 specifically mixes and remixes, that have been
5 unmonetized. It's the world's largest unmonetized
6 segment of content.

7 To give you an idea, I know when people think
8 of deejays they think of a niche market, and it's kind of
9 a faddish sort of segment. It's really not. The deejay
10 has been the curator for folks for as long as all of us
11 can remember radio. The amount of content that sits on a
12 service like Spotify is about 4 million hours. The
13 amount of unmonetized recorded deejay content that is
14 sitting out there in hard drives and servers and on rogue
15 sites throughout the world conservatively exceeds 150
16 million hours.

17 There's a massive opportunity that relies
18 around and is challenged by fractional ownership. It's
19 challenged by territories. It's challenged by -- by
20 compliance and laws, but we think we've solved it. It's
21 taken five years. We've just launched the world's first
22 platform -- I keep using "world's first." I have to stop
23 doing that. We've launched the platform that now can
24 take any deejay's content, put it through a registration
25 identification rights association, cross-clearance

1 distribution and settlement process, and allow for
2 monetization across any music service in the world.

3 So it's a bit like Content ID and YouTube on
4 steroids specific to just this particular music genre for
5 now.

6 MR. KLARIS: Thank you, Bob.

7 Okay. So to synthesize, I think that what this
8 group has said is that there are three components to a
9 marketplace. There's a system, a process, and data that
10 goes into the system. And, so, we've got Sam and Trent
11 who have come up with a database of sorts which have
12 schemas that need to be populated with data, and I think
13 that the Copyright Hub is in many ways trying to help
14 populate those schemas.

15 And a lot of what we've talked about today
16 where you're populating unique IDs and stuff are about
17 the data and about the process by which you go about
18 doing that, which can be very complicated.

19 Let's assume we have -- we're creating a
20 marketplace that is completely machine-readable, so
21 there's no human interaction in the transaction itself.
22 Choose one of those three things and just tell us in one
23 word which is the most important -- or three words -- the
24 most important, the second-most important, and the third-
25 most important: data, system, or process to get to a

1 completely automated marketplace. Three words.

2 Start -- we can start here. Just three words.

3 MR. BARBIERE: Thank you. Standards, which is
4 data?

5 MR. KLARIS: Yeah.

6 MR. BARBIERE: Okay. Oh, it's going to be your
7 three words?

8 MR. KLARIS: That's one. No, it's three words.
9 The data, process -- you can define it, you know, but --

10 MR. BARBIERE: Yes. Standards --

11 MR. KLARIS: -- standard, process --

12 MR. BARBIERE: Standards around the data; a
13 commitment to an imperfect process that will improve; and
14 a willingness to adopt beyond that process.

15 I don't know if those are the three words
16 you're looking for, but give it a shot.

17 MR. KLARIS: Okay. I want data, process,
18 system.

19 MR. ROGERS: Oh, sorry.

20 MR. KLARIS: Caroline?

21 MS. BOYD: Tricky question. I think that -- do
22 you want to just define system again? I'm being too --

23 MR. KLARIS: System is the actual database
24 itself.

25 MS. BOYD: Okay, cool, and then data's what's

1 transported, and then process.

2 MR. KLARIS: The data is what populates the
3 system.

4 MS. BOYD: Okay, cool. Gotcha, gotcha.

5 MR. KLARIS: And the process is how you go
6 about getting the data in the system.

7 MS. BOYD: Then I'm going to go against all my
8 instincts. I am a data person, but it's the process
9 that's most important at the moment because the human can
10 still be trusted to make something of the data,
11 regardless of whether it doesn't make much sense to a
12 machine. As long as that data can be presented to the
13 human. So process, data, system. Process, system, data.
14 Eh, system, data.

15 MR. KLARIS: Okay.

16 Sam?

17 MR. GILCHRIST: I suppose I would say system,
18 and then I'd say process, and then I'd say data. And
19 that seems counterintuitive given the discussions we've
20 had, but you said that it would result in a fully
21 automated transactional platform or perhaps even a
22 transactional network. The reason I say system is
23 because when I listened to Trent and I listened to Benji
24 and I listened to Bob/Robert, talk about the evolution of
25 the things they were involved in, and I know about my own

1 background, having been at British Telecom, spent a lot
2 of time at AT&T, so forth and so on, systems and how they
3 are intended to work, really important.

4 And what we did in the '90s and early 2000s in
5 terms of that sort of big leap in technology and tools
6 makes the ability to construct one of those really
7 arbitrary now. You can decide how deep, how wide, how
8 much it talks, how much it doesn't talk, you know,
9 without too much trouble, but the fact is is you can do
10 it. So if you have an application you're intending to
11 do, you can build the system. So you build the system;
12 you take the tools; you put it together.

13 MR. KLARIS: Okay, thank you.

14 MR. GILCHRIST: The process -- the process,
15 though, before I -- the reason -- I ranked data last on
16 purpose.

17 MR. KLARIS: Okay.

18 MR. GILCHRIST: The process is important to me
19 secondly because the management of this new application
20 as you called it is the whole reason you're doing it in
21 the first place, so you have to understand how to control
22 the system and work with the other systems that are
23 there. And then the data, the reason I made it last is
24 because you can't predict. You cannot predict the world
25 you're going to be in the very next moment you're in it.

1 So you need to have a flexible system so that you can
2 house the data, but you don't -- you shouldn't work on
3 the data first.

4 MR. KLARIS: Okay, great.

5 MR. GILCHRIST: And that's weird. It's not --
6 and most applications build the data model, you figure
7 out the data, then you start building the system. But we
8 already did that. We actually know the systems. We know
9 that we generally have an idea of the data. So we should
10 construct the system first.

11 MR. KLARIS: Okay.

12 Kristin?

13 MS. KLIEMANN: Yeah, I'm going to go -- oh,
14 sorry. I'm going to go with system first also. First of
15 all, if you have something you can get all the nasty data
16 into, you can start cleaning the data. If you get stuck,
17 as many people do, with trying to wrap their minds around
18 how are we going to make this data perfect before we
19 build something, you end up with a long, long time line
20 that doesn't serve your purpose.

21 So did I rank it all? No. Process, okay.
22 System.

23 MR. KLARIS: System is one.

24 MS. KLIEMANN: Process, data.

25 MR. KLARIS: Okay.

1 Trent?

2 MR. MCCONAGHY: So I'll put process first;
3 system and data tied for second. I believe that system
4 and data, while I work on it, I think they're table
5 stakes. I think that once you have a flexible, useful
6 system in there, then it allows innovation at the top
7 level, and with process, I really mean about unlocking
8 the assets, getting the users to actually use this thing.

9 So I think, you know, some of the table stakes
10 for system and data are the fact that it's actually as
11 decentralized as the worldwide web, right, that you do
12 have the decent protocols to support this. They have the
13 flexibility for the future, right? The web standard, the
14 initial one, was developed in 1989, 1990, and that was 25
15 years ago. It's still working and we still use the web
16 all the time. So you can build these systems with the
17 data to be flexible enough for the future, right?

18 And my favorite example for process is the
19 travel industry, actually. There's two databases that
20 power it: Sabre and Amadeus, for America and Europe
21 respectively. These have been around since the '90s, and
22 guess what, all the innovation is at the UX level, the
23 consumer level, right? This is why we have Kayak as a
24 very great take on UX, which is very different than
25 Trivago, which is very different than HipChat. That's

1 what I want for music and books and all these other IP
2 forms.

3 I want to see the exploration for incentives to
4 -- I want to see smart entrepreneurs and smart companies
5 try to find what is the best way to interact with this IP
6 to unlock the assets. The rest is table stakes.

7 MR. ROGERS: Hello. So for process, I would
8 replace that word with work flow.

9 MR. KLARIS: That's the same. I think those
10 are the same.

11 MR. ROGERS: As long as we're -- yeah, because
12 essentially I think that the way that you get to data is
13 through that work flow and process. So I would go
14 process or work flow. I would then go format, which
15 contains data. That way, wherever you move that packet,
16 that data is consistent. And then that leads to a system
17 that I will call marketplace because ultimately if the --
18 if the objects themselves can become the seeds of the
19 marketplace, then you can grow everything on top. So
20 that's where I go -- work flow, process, format, which
21 would contain a minimum viable data standard, and then
22 system or marketplace.

23 MR. KLARIS: Okay. So you can see that there
24 is no agreement on how we go about building a marketplace
25 and where we put our priorities. And these are some

1 people who think about this their entire lives. I would
2 have my own opinions.

3 Why don't we try all of us? Who here thinks
4 that system should come first?

5 (Audience show of hands.)

6 MR. KLARIS: Who here thinks process? For who
7 process comes first? Work flow, process.

8 (Audience show of hands.)

9 MR. KLARIS: Okay. And who thinks data comes
10 first?

11 (Audience show of hands.)

12 MR. KLARIS: Okay. One data, two datas.

13 AUDIENCE: (Off-microphone comment).

14 MR. KLARIS: People create work flow. You're
15 saying work flow is the number one, most important thing.

16 Oh, yeah, but that's -- okay, so, we won't get
17 distracted for the moment. Let's --

18 MS. KLIEMANN: Rabbit hole.

19 MR. KLARIS: Yeah, rabbit hole.

20 So, all right. Well, then, we all -- we all
21 see that the audience thinks that process or work flow is
22 number one. And that's fascinating because it's the
23 hardest thing to solve because we're dealing with human
24 beings who need to learn how to do it, create it,
25 populate it. You've got brilliant people like Trent and

1 like Sam who are making these fantastic systems, and then
2 the big obstacle is work flow.

3 Question. Is the -- let's take the IPDB,
4 Trent, your system. What is it that you -- how do you
5 envision the world adopting it and making it into -- does
6 it have to be almost a monopoly in order to work? Or can
7 it be one of many, many and still work?

8 MR. MCCONAGHY: so to summarize, it can be one
9 of many. And the best way to think about this is the
10 history of the internet. So it started with ARPANET in
11 the mid '60s, right? There was one net. It took off, it
12 took off. You know, it started with 17 universities
13 throughout the USA, and then, over time, more were added.
14 But there was a lot of universities in Europe and
15 elsewhere that wanted to have their own. So they built
16 their own systems -- CSNET, NSFNET, et cetera. And
17 suddenly you had these -- all these different networks
18 that didn't talk to each other.

19 That's when Vint Cerf and Bob Kahn came along
20 in the mid '70s and invented something called TCP/IP, and
21 you could connect these networks, the network of
22 networks, which we now call the internet. I see the same
23 thing with this, right? And there's a modern equivalent
24 of TCP/IP for value. It's called inter-ledger protocol.
25 It came out about a year and a half ago. We're deeply

1 involved in it. And this is the key.

2 So, overall, we make sure that IPDB itself
3 speaks that language. We encourage others to hook to it
4 and so on. And overall, then, IPDB, we envision as going
5 to be one of the bigger, stronger ones to start with, but
6 we encourage lots of people to build other things that
7 interoperate. We also see, you know, it really is
8 important to think about this as fundamental internet
9 infrastructure, and this is why we've been working very
10 closely with the people in the past who have been
11 building the fundamental infrastructure. For example,
12 David Holzman, who built -- who rolled out the DNS, the
13 modern DNS, he's one of the advisors in helping to run
14 IPDB. This is really important.

15 So, overall, IPDB is not the one monolith to
16 rule them all; it's designed, though, to make it really
17 easy for people to build their marketplaces on top, to
18 serve this process, to serve the users, to explore
19 different business models.

20 MR. KLARIS: Okay, thank you.

21 Caroline, when you entered into your project to
22 create this sort of unified standard, if I may, what was
23 the ultimate goal? Like what is the goal? And in terms
24 of marketplace, if you will.

25 MS. BOYD: The ultimate goal in terms of

1 marketplace was for us to disappear, that just to become
2 one standard that's used, like DNS. You've talked about
3 DNS; Trent, too. It's just like DNS, connecting up. The
4 standard is how you connect. So any standards would
5 work, as long as they're used. Any identifiers would
6 work, as long as they're used. We should no longer be
7 there. It should just be part of how the internet works.

8 MR. KLARIS: Okay. So, Benji, is there any
9 incentive for private companies that are getting funded
10 and wanting to grow and build and become important and
11 valuable to adopt a standard, or is it more beneficial to
12 them to sort of conquer the world themselves?

13 MR. ROGERS: It's vital for them to form a
14 standard. I mean, just in terms of the music and
15 technology investment, it's dried up. It's drying up at
16 a rapid rate. Music is a toxic industry to invest in,
17 absolutely toxic, because if you were to try and start a
18 company, it's almost impossible to begin it by, to your
19 point, doing the right thing, because you are literally
20 prohibited from every which way in doing so.

21 Just ask any VR startup right now why they have
22 to raise so much money to get off the ground. It's not
23 the computing power; it's literally dealing with the
24 entire experience requires music at its core. One of the
25 reasons that I proposed that this should be around a

1 format standard is because all of the extraordinary data
2 in the world is amazing until you can strip it out and
3 repurpose that file to some other means.

4 And I haven't -- and I'm not the smartest guy
5 in the room by a thousand miles. I haven't been able to
6 see a way in which you can do it in the absence of that.
7 If we're still sharing our works in .mp3 or .wav or .acc
8 in 2017, something is radically wrong because every time
9 you fix data, I can remove it. Anyone can on any device.
10 And, so, what occurs to me is you can use all those
11 existing standards in a wrapper, literally like a zip
12 container that transports around.

13 This way, if I'm a VR company, I can go look
14 into what's in that wrapper; I can request permission to
15 use it; I can be given obligation in exchange for that
16 permission, this is what I have to do. And wherever it
17 goes, it's then basically expressing what -- what is
18 happening to it in an endless change log in a blockchain.
19 Therefore, government can view it, run a node, you know,
20 keep it going. Copyright offices, the entire ecosystem,
21 can view the open and available data. The private
22 industries on top can keep the data that they want
23 private private. And everyone's infrastructure, like no
24 one doesn't operate in this system. If you're a
25 performing rights organization, a label, a publisher, you

1 all build a plugin to that architecture. So no one loses
2 in that game unless your goal is to hide and obscure
3 money, which I'm fine with them losing, that's okay.

4 And, so, one of the ways is, you know, there's
5 a UGC challenge there, obviously, but in my mind, if you
6 authenticate into a UGC platform, you're creating an
7 identity. And then if you basically add to your
8 identity, then if you're saying -- and the work flows are
9 actually quite simple. This song I'm uploading, is it a
10 cover? Yes. Who wrote it? I don't know. Who made it
11 famous? This person. Boom, you've created something
12 tied to an identity.

13 Therefore, it can pile in to the original
14 source bundle, which, again, wherever it moves,
15 whatever's added to it, when Bob's company is scanning to
16 figure out the deejay mix, that mix is added. And by
17 entangling the people who have to work together in such a
18 way that they can't not work together is how I think the
19 marketplace evolves.

20 MR. KLARIS: Okay. Sam, I'm going to ask you a
21 very -- the same question, because I'm interested to know
22 whether -- to what extent you agree or disagree with what
23 you just heard. And let me just put another -- just to
24 clarify, are standards realistic in a capitalistic
25 economy when I think there's probably some -- I think

1 everybody would agree that a standard is great because
2 your business can get bigger faster, but is it realistic?

3 MR. GILCHRIST: Well, I think -- thank you. I
4 think standards are a good idea inasmuch as that as
5 trading partners agree that it's a good idea. I don't
6 know that the end-user cares whether or not there's a
7 standard because they're not really involved in that
8 aspect of the value chain.

9 But I think that participants who are -- who
10 are either adding value in some way during the initial
11 process of creation or are distributing, exploiting,
12 recovering as a result of the exploitation, I think they
13 certainly can benefit from standards, but inasmuch as
14 their trading partners also will benefit, because there
15 could be better transparency privately between companies
16 that are doing business, individuals who are a part of
17 that.

18 But the idea of the sort of federated
19 registration is, to me, a percentage -- a potential
20 percentage of the solution, meaning there's an
21 opportunity to register some types of works. And for
22 them to be registered in a way that is taking advantage
23 of blockchain technology. And the idea that you would
24 use it to -- as a definitive source for ownership and for
25 obligation, I'm not sure about that because the speed of

1 change, the speed of -- the speed of privately deciding
2 between a willing buyer and willing seller that they're
3 going to do something different, right, and then that not
4 actually updating the registry. And, therefore, the
5 opportunity for potential, you know, accidental fraud,
6 actional fraud, so forth and so on.

7 I'm not against it. I think it's a good idea.
8 I think there should be all kinds of advances around
9 trying to make -- make -- understanding ownership
10 knowable, right, at least to the extent that you have
11 covered for the application of the -- or the use of the
12 content. But being a ubiquitous, you know, sort of
13 solution, I'm not so sure that that actually is really
14 going to be the case for the previous reasons.

15 Number one, the speed of change around
16 ownership is mind-boggling. I mean, you cannot know that
17 somebody just agreed to allow somebody to do something,
18 and therefore transferred their rights. You just can't
19 know it that quickly. Could you know it where you set up
20 essentially a wall garden? You literally locked down the
21 network. You made no, let's say, prospective model
22 available unless it was registered. Then, yeah, I mean,
23 but now you're privately trading. That's all you've
24 done. You've just simply said I'm going to privately
25 trade in here, and if you want to use these applications,

1 if you want your stuff traded here, you have to agree to
2 use these technologies.

3 But then there will be another one. There will
4 be a new network, overlaid on the existing
5 infrastructure, that won't. The law says there can be.
6 Contracts between parties say they can do that. And I
7 think you need to be -- I think that we need to be
8 flexible, and we need to push for, you know, greater
9 control, but we need to be realistic and try to help
10 those who are in the value chain or who rightfully should
11 be paid or rightfully should be asked, you know, be asked
12 and be paid.

13 MR. KLARIS: Okay.

14 MR. BARBIERE: Can I add to that?

15 MR. KLARIS: I think that Trent wanted to ask,
16 and then you can, Bob.

17 MR. MCCONAGHY: So I'm going to push back on
18 that a little bit on the claim as well as just making
19 sure that everyone has the same understanding of today's
20 technology capabilities. So in the first part, saying
21 that, oh, you know, if Person A makes a deal with Person
22 B and it's not recorded, well, that's the same problem on
23 private versus public versus whatever, right? So making
24 a claim that it's just on blockchain then doesn't make
25 any sense, right, to me.

1 So, overall, everyone who's participating in
2 the system is going to be incentivized to actually record
3 that transaction in a business contract that is written
4 down in some database, whether it be public or private,
5 right?

6 In terms of the capabilities, you know, I want
7 to make sure that everyone understands it's not just
8 about, like, updates of every 10 minutes or something.
9 That's sort of, you know, the old-school blockchain
10 stuff. Now, you know, it's actually updates on the order
11 of a second or less, right, where you can actually store
12 all the data and so on.

13 And the other thing most people might not be
14 aware of, modern technology with blockchain, et cetera,
15 allows you to have privacy within, right? The most
16 famous example is Zcash, right? So I can actually
17 transfer money to someone else, and it's completely
18 private how much I've transferred. Even the validating
19 nodes can't see, right? So you can have privacy in terms
20 of the value of what was transferred, in terms of the
21 actual rights that were transferred, even the identities
22 of the participants who transferred, right?

23 This is all public. You can still have a
24 public database, but there can be pieces inside that
25 actually are private, right? Just like with the

1 worldwide web, right? While the worldwide web is an
2 overall infrastructure that's out there, there's pieces
3 that people can't see because you have protections, you
4 have privacy there, right? So just to make sure.

5 And, overall, I'm going to really push back at
6 the highest level. You know, I think it's a really bad
7 idea to advocate for data silos. That's why we're here
8 today, because we have this problem where you have Silo A
9 and Silo B and Silo D and so on, and they're not talking
10 to each other.

11 And everyone talks about interoperability, and
12 I agree, but you need to actually have the technology to
13 support it. And once we get past there with the
14 technology, once that's all supporting it, that's great,
15 because, once again, we can focus on the higher level
16 applications to serve the creators, to serve the
17 audiences, to serve the middlemen, even, to basically
18 discover great content and monetize.

19 MR. KLARIS: Thank you. That's helpful.

20 Bob.

21 MR. BARBIERE: Yeah, I'm going to -- I want to
22 dumb it down a little bit or take it to a higher level.
23 I think standards are great, but the word by definition,
24 "standards" as a plural, represents a problem when you're
25 talking about a specific challenge that you're looking to

1 overcome. We've, in music, thrown a lot of really bright
2 people at trying to solve data challenges. And what we
3 see are -- and where part of that mess is we're
4 developing standards, standards that we believe will move
5 the ball forward and facilitate change and do all the
6 things necessary to fix some things that were broken. No
7 different than Benji and I'm sure the companies that
8 you're investing in, Sam, and so forth.

9 What really is lacking is oversight, and not in
10 a governmental way, but in an organizational way. And
11 until -- until an organization -- and, you know, I don't
12 want to drive this back to telecommunications, but
13 telecommunications has a union. And through that union,
14 which are all of the competing parties participate for
15 the betterment of a global industry. Until you really
16 have that, and that's bought into, standards never really
17 take effect. What you have are competing standards. And
18 that's what we see in music is there's ISRC, there's
19 ISWC, there's -- we're creating our coding system.
20 There's three or four blockchains tackling music right
21 now. How do you -- the question really becomes, is how
22 do you formalize a single standard, because until you
23 have a single standard, you don't have interoperability.

24 MR. KLARIS: Yeah, okay.

25 MR. ROGERS: If I could just say as far as the

1 standard side goes, I tried to pull this back to the
2 simplest conceivable level that you could have it. And
3 when we were on the phone with a door manufacturer, I
4 said every time you export a song -- I was in a studio,
5 and I was watching the export process, and it just came
6 .mp3, and every single field was optional. Not one field
7 was required to get the song out of it.

8 And that's when I thought to myself, well, what
9 if you could not exit the workstation -- the digital
10 workstation -- in the absence of writing down the name of
11 one writer, one performer, the title of the song, and a
12 copy of work itself. What if that were not possible
13 anymore? Then what you have is -- and I called it
14 minimum viable data.

15 So, essentially, you can contact two parties to
16 the work. Are they the true ones in the final stretch of
17 the imagination? No. Will there be other added? DDEX,
18 right? This -- all those standards for interoperability
19 I believe exist. The challenge is at the work flow level
20 you can't get the basic information in because we've
21 assumed that's too hard in a world where tape -- where
22 people wrote down tape and what happened, you know, on
23 sheets of paper that never made it.

24 Now, with the standardization of the work flows
25 out of the studio, requiring those elements changes

1 everything because at the very least you could contact
2 the person noted as the writer at that moment and say to
3 them, hey, who were the other writers here. So when I
4 talk about a standard, what I mean is minimum viable data
5 for registration in a blockchain database would have two
6 of the key people in it. Therefore, anything that you
7 add on top is starting from that.

8 Now, it can be wrong. That's okay, but you can
9 heal the data forward by adding to it, versus today,
10 which is when I export, I don't have to put anything in.
11 I can text a publisher and tell them I was part of a
12 session that happened at this place, and that goes into a
13 PRO. So that sounds crazy, but if you think about it, at
14 its raw level, songs have two sides -- someone who wrote,
15 and someone who performed.

16 If we can add that to a title and a copy of it,
17 the immense power of that block of information -- then
18 you can add every other type of standard that you want on
19 top, but you can grow it because at the worst-case
20 scenario, those who are commercially involved in the
21 transaction that that work will then have going forward
22 are contactable, and you can amend forward to get to a
23 greater level of truth using the existing standards that
24 have been worked on for years by people way smarter than
25 I am.

1 MR. KLARIS: Thank you. I mean, I think that
2 what you hear in Benji's voice is a sense of, you know,
3 just give us this much, you know, we just need this tiny
4 bit. That's hard enough to get. When you're talking
5 about transacting in a marketplace, you may even need
6 significantly more than that minimum, even if that's a
7 beginning.

8 Caroline, can you talk about the definitions
9 that go to standards, like, for example, in the -- in the
10 audiovisual world, an SVOD right is a subscription video
11 on demand right. What does that mean, and how can you
12 possibly get to a place where the licensor and the
13 licensee inevitably know exactly what that definition is
14 as a standard? And how far away are we from even
15 definitional standardization? What does syndication
16 mean, you know? What does distribute mean? What does
17 all media mean?

18 MS. BOYD: You must remember that all we're
19 doing is transmitting that information. In terms of how
20 do we move forward, there are a lot of standards. And
21 when you said there were so many standards we don't know
22 what to do, I suggest you talk to the two gentlemen over
23 there who work with the Linked Content Coalition where
24 standards can be mapped together into one simple
25 understood message. And that's the kind of message that

1 we're dealing with. That's what we need to be able to
2 transmit information to the licensee.

3 The licensor end is always automated. The
4 licensee at the moment is still making a choice. We
5 allow them to make that choice so that that's got human
6 interaction there. Once we start automating that, that
7 will be a whole new ball game, but let's do it a step at
8 a time.

9 MR. KLARIS: So are you in agreement that we
10 start with this minimal viable, and then we --

11 MS. BOYD: The minimal viable data that Benji's
12 describing is probably the most critical thing for the
13 music industry because you're just describing mapping a
14 work and a recording together, which it would be
15 fantastic, just fantastic. I'd kill for that, yeah.

16 MR. KLARIS: Yeah, no, it's true. It's -- all
17 we're looking for is that nugget, and that nugget would
18 be wonderful. And it also begins to change behavior.

19 MR. ROGERS: And --

20 MR. KLARIS: And it's as soon as somebody's
21 putting information in, then they'll get better at
22 putting more information in.

23 MR. ROGERS: And the key is it disadvantages
24 nobody because if you can't -- and I'll talk to the
25 musician level because I'm the guy -- I've spent a lot of

1 time in studios. There is a moment where you don't want
2 to talk about publishing splits, and you don't want to do
3 that, you don't want to kill the vibe in the room. And,
4 yet, at the same time, hey, can you send this -- can you
5 send me a copy of this?

6 The second that goes out, if the engineer says
7 I need to put a writer in here in order to get this out,
8 or if I'm sitting there -- I just need to put one writer
9 in. The artist has already kind of written into that
10 track level. Then that opens up the ability to put in
11 the bass player. So, then, all of a sudden you've got
12 SoundExchange has the ability.

13 That first kernel there leads to everything
14 else because then what -- you know, DDEXes work around,
15 you know, how to get the music to digital service
16 providers. You can build everything towards that. And
17 that's really where -- like, that's not an impossible
18 step at all. It's just a question of enough of the
19 industry saying, hey, we would require this as a minimum
20 to export from a digital audio workstation. Avid, Apple,
21 everybody, let's get together and make that happen.

22 Then, you've got a writer contactable at all
23 times, which has the other writers, the co-writers, the
24 co-publishers. So that makes the unit of music itself
25 interoperable. If you make it so you could never remove

1 the writer or the performer, even more powerful.

2 But let's start with the first step of, like,
3 can we say -- and I've spoken to labels, publishers.
4 They have no problem revealing who wrote and who owns.
5 They have no problem with it. So I think it's -- when I
6 say process and work flows there, it could be that --
7 that utterly simple because to Trent's point here, that's
8 how you create a massive interoperability. If you could
9 always contact at least two parties to that song, even if
10 it was the same person.

11 MR. KLARIS: Thank you. We are just about
12 through, and I want to give Kristin the last word because
13 she hasn't had enough air time. And I think it kind of
14 works. If you said you represent sort of big publishing
15 for purposes of this conversation, how hard is it for big
16 publishers who pay people to do the job of putting data
17 into book files -- how hard is it to even get people who
18 get paid to put it in and do it well?

19 MS. KLIEMANN: Mine goes to 11.

20 MR. KLARIS: Okay. Just give us a sense of,
21 you know, you've got literally an organization where
22 someone's paying their rent to do this. How well are
23 they doing it?

24 MS. KLIEMANN: Yeah, well, it's a mess. But
25 there -- I mean, it goes back to when you started talking

1 about SVOD. I mean, how are we ever going to know what
2 the future potential monetizations are going to be? And
3 we learned a lot as publishers by never even having
4 contracts back in the olden days that said anything other
5 than -- we used to say print, publish, sell, and
6 distribute, right? Those were the rights we've got.

7 And then we had to stop talking about print
8 because it's not about printing, right? It's publish,
9 sell, and distribute. And it's about publish, not
10 "privish" so you want to get it out in as many possible
11 ways for that creator and for your own sake. So you have
12 to start with some definitions of general rights. And
13 the minute you get into that conversation, you're talking
14 about everybody having a different opinion about what the
15 rights are and should be exploited.

16 So we hire companies to do it. We set it up as
17 best we can. It has to be constantly readjusted, so
18 that's the minimum viable, I think, is really important.
19 And constantly revising to update the data to make sure
20 that you're able to move into the marketplaces that will
21 come into existence, that we don't know about yet. We
22 didn't think VR or AR, you know, how many years ago.

23 So I think I would vote hard for minimum
24 viable, put in what you have. There -- publishing has
25 been around a long time and there's a set of rights that

1 exist. And get those in the registry or in the database
2 and move on from there with constant revision.

3 MR. KLARIS: Thank you. I want -- help me
4 thank the panelists, and thank -- oh, yeah, do we have
5 time for a question?

6 (Comment off microphone.)

7 MR. KLARIS: Thank you. All right. Help me
8 thank the panelists, and thank you all for being here,
9 and thanks to the USPTO for putting this together.

10 (Applause.)

11 MS. ALLEN: So if I could ask the next
12 panelists to come up all at once, and then we'll have
13 your presentations loaded and you can come up here.

14 And just a few housekeeping notes, for those of
15 you online that may be chatting, if you have questions,
16 if you could please say that in the comment -- I have a
17 question for panelists -- that would help us sort of
18 identify what is a question from what is just chatter.

19 Just in terms of the rest of the format for
20 today -- oh, just come on up.

21 Once we are done with these presentations, we
22 will open up the exhibit hall and have lunch. So there
23 will be a break session soon.

24

25

1 **TECHNOLOGY "CURRENT INITIATIVES"**

2

3 **Short "rapid fire" overviews of some**
4 **technologies and initiatives, followed by**
5 **opening of Exhibit Hall showcasing additional**
6 **initiatives.**

7

8 MS. ALLEN: If we could all be seated. So our
9 next session is a little bit different. We've decided --
10 we've asked a few representatives of current initiatives
11 to come up and just tell us very briefly about what they
12 are doing. And we're very excited to have them here.
13 We'll start with Danny and then just walk down the line.
14 If each of the presenters could come up, if you have
15 slides here to talk.

16 After this presentation, we will then move next
17 door. There'll be an exhibition hall where people will
18 be available to talk and discuss, and it will also be
19 lunch time. So feel free. There's a cafeteria nearby
20 where you can get some food as well, or there's places
21 across the street, and then we'll come back after lunch
22 for a breakout sessions here.

23 If you have not yet signed up for a breakout
24 session, please do so by 1:00 p.m. That will let us know
25 how we are going to structure everything. If you're a

1 facilitator of a breakout session or a note taker, if you
2 could come back about five, ten minutes before the
3 breakout session here we'll have a little pre-game pow-
4 wow.

5 And with that, I'd like to turn it over to
6 Danny Anders.

7 MR. ANDERS: Hi. Yeah, my name is Danny
8 Anders. I'm the founder of a company called ClearTracks.
9 ClearTracks started a while back. It was originally
10 something very simple. I wanted to clear the rights to a
11 DJ mix that was recorded. And as I dug deeper and found
12 the difficulties and all the different parties that were
13 involved, I quickly learned that the complexity of
14 clearing copyright for a derivative work is very
15 complicated.

16 Not only was -- could I not easily identify the
17 rights holder, but there were multiple rights holder,
18 multiple rights that needed to be cleared, multiple
19 parties for each right. And I originally started looking
20 at Creative Commons ironically and thinking, well, this
21 is a system that allows people to prelicense their work,
22 basically set their terms in advance for certain,
23 specific uses. Now, those were mostly noncommercial uses
24 at the time. But I thought, well, what if you had a
25 database where people could pre-license their work for

1 specific terms.

2 So if you look at things like the PROs and
3 SoundExchange today, they're essentially by consent
4 decree pre-licensed works for certain types of uses. But
5 for derivative works, there is no consent decrees and
6 there is no established right and no established market.
7 But there is still difficulty in identifying all those
8 rights holders.

9 So I created this database where people could
10 pre-register their rights for certain types of uses. So
11 that would include things like DJ mixes, remixes,
12 sampling, games, VR, basically what we consider user-
13 generated content today, as well as more formal
14 derivative works.

15 So in order for people to do that, we came up
16 with this concept of, again, prelicensing is what a lot
17 of people are referring to these days as a smart
18 contract. A smart contract is basically setting your
19 business rules in advance where people can easily or even
20 electronically come in, identify the terms of the
21 contract, decide whether they want to agree to it or not,
22 and conduct a transaction. Once you have all of those
23 things electronically in place, you can actually transact
24 things very quickly.

25 In order to prove that out, you know, I look at

1 things like NASDAQ as a market where people can clear
2 things very quickly. I look at Mastercard and the way
3 that they can clear a transaction from consumer all the
4 way back through the banks to the originator of the
5 product in hours or days. And this includes multiple
6 parties. So there is an efficiency that can be had if
7 you can do this all electronically.

8 So as I built out this smart contract platform,
9 I started recognizing that there is no place I can go to
10 identify rights holders and splits easily. So I built a
11 registry that allows people to come in, register their
12 works, register their splits, and then I also built a
13 monetization platform.

14 So at this point I can allow somebody who
15 creates a derivative work to monetize it, identify all of
16 the rights holders and pay everybody out basically in
17 realtime. So you don't have this multiple party, multi-
18 month reporting that's required because I can identify
19 who the rights holders are. I can do it instantly,
20 accurately, transparently and quickly while preserving
21 the interoperability with existing platforms.

22 And that's really the goal, is to create a new
23 efficiency where you can go from monetization to paying
24 out all of the rights holders and clearing the rights
25 almost in realtime without having to go through multiple

1 parties.

2 And the platform is built, it's ready today,
3 people can use it, people have been testing it, and you
4 can see me in the next room if you want to take a look at
5 it.

6 MS. ALLEN: Great. Thank you so much.

7 Lee, if you want to come up, we can get your
8 slides ready.

9 MR. GREER: Sure. Hi, everyone. My name is
10 Lee Greer. I'm the founder and president of NPREX, which
11 is short for the National Performing Rights Exchange.
12 NPREX is an online platform for direct licensing in the
13 performing rights space, both sound recordings and
14 compositions.

15 Let's jump ahead here. This is a visual of
16 what we hope that NPREX will become, a network of buyers
17 and sellers in an online exchange. I'm an economist by
18 training, and I think of NPREX as essentially the Chicago
19 Board of Options Exchange with one caveat. The Chicago
20 Board of Options Exchange doesn't have the Black-Scholes-
21 Merton pricing model built into it so that buyers and
22 sellers can exploit that methodology in determining its
23 bidding strategies.

24 NPREX has a similar pricing algorithm built
25 into it, although I don't expect to win the Nobel Prize.

1 So what we hope to do is help rights holders deal
2 directly with music users and vice versa.

3 Today, of course, we have a collective
4 licensing paradigm that is pervasive. It has its share
5 of flaws, many of which result in delay, complications.
6 I think one of the fundamental flaws is that the notion
7 of voluntary exchange and first principles of economics
8 have gotten lost somewhere. We want to use this platform
9 and the technology within it to bring that to rights
10 holders and music users, and to the industry in general.

11 MS. ALLEN: All right, thank you.

12 MR. GUGLIELMINO: Thank you. I'm Peter
13 Guglielmino, CTO for media and entertainment for IBM.
14 Thanks for having me.

15 I just wanted to take a couple of minutes to
16 give you a quick overview of what we're doing with
17 respect to blockchain in M&E. Really, we've been
18 collaborating pretty closely with our research teams.
19 Out in Almaden there's a cryptology group, and Almaden
20 has been working with the studios for probably 15 or 20
21 years around broadcast encryption and Blu-ray and things
22 like that.

23 And what we've learned is that there are some
24 things that we need to understand, and we've been running
25 these design thinking workshops with a lot of the players

1 across the music industry, across media and
2 entertainment, to really -- to the point made before to
3 understand the work flow, to ensure that if we build a
4 fabric to do secure processing that it meets those types
5 of requirements.

6 So let me just quickly go through this. So
7 we're looking at trying to understand how to use
8 blockchain for business processing to be able to do
9 things in a secure, managed and governed way. And I'll
10 quickly just get through some of these things.

11 So one of the things that we've done is we're
12 one of the founders of the Hyperledger project, it's a
13 Linux Foundation project, open sourced. You may or may
14 not be familiar with. But it's a way to provide an
15 implementation for smart contracts, multiple models for
16 consensus, and to be able to do this in a highly scalable
17 way.

18 One of our colleagues, John Wolpert, there's a
19 video on the web that I'll give you a link for if you
20 come to the room later on where he very eloquently
21 describes what the issues are that we've discovered with
22 permission blockchains. So you may be familiar with
23 unpermissioned blockchains, sort of like the Bitcoin
24 world. We're talking about something a little bit
25 different. Permission blockchains really allow secrets

1 to be kept within business trading partners, because not
2 everybody needs to know everything that happens within a
3 transaction.

4 And just to give you the quick two-second or
5 two-minute version of what John describes is when we
6 looked at permissioned blockchains, we found some issues.
7 The first issue was that every peer has to execute every
8 transaction. They have to maintain the ledger and they
9 have to also run consensus. So the big problem that that
10 results in is that it's really not scalable. You get to
11 have a problem in scalability

12 And the other thing is it doesn't support
13 private transactions or confidential contracts. And as
14 we all know in this world where there's multiple
15 providers, multiple consumers, there are going to be
16 instances where I may make a deal with one party but I
17 don't necessarily want another trading partner of mine to
18 understand or know about that deal.

19 And so that manifested itself into us realizing
20 that we needed to separate two different run times, one
21 for -- one around peers and one around consenters. And
22 so there are three separate roles. There's the endorser,
23 the committer, and the consenter. And those separate run
24 times can scale independently, and most importantly they
25 provide the opportunity to keep secret a certain part of

1 the transaction.

2 So here's an example. This is pretty generic.
3 It obviously would apply to the music industry or any IP
4 asset. But if I'm a radish producer in Chile and I want
5 to sell my goods to an organic market in California, I'm
6 going to set up a transaction with them. But there are
7 lots of intermediaries between myself and that ultimate
8 destination of that -- of those radishes. You know, do I
9 have the bill of lading set up, do I have the shipper
10 defined, do I have insurance and all those things.

11 Each one of those transactions appear on the
12 blockchain, but only the transactions that apply to those
13 individuals are represented on their ledger. So not
14 everybody sees everything that happened within that
15 transaction, only the parties that have permission.

16 So I can keep the secret between me and that
17 market separate from the rest of the blockchain
18 transactions. Again, the importance here is if I'm
19 selling radishes to 15 different markets, I may have a
20 special deal with one and not with another. But I still
21 want the other ones to do business with me at our
22 negotiated rates.

23 So that type of capability is what's
24 underlining things like the Permission Hyperledger, and
25 the key to this whole thing is really around the

1 cryptology. And that's the key that the folks in Almaden
2 are working on.

3 So if you'd like to get some more information, we
4 can talk about it, you know, later on in the room. But
5 the whole point of this is to ensure confidentiality, to
6 be able to scale this thing and to provide security.

7 MS. ALLEN: Thanks.

8 Eugene Mopsik?

9 MR. MOPSIK: I just have that one slide. All
10 right. So I'm here today to talk to you about something
11 that excites aging photographers and visual artists, and
12 sadly it's not anything that you'd probably think of.

13 For the past two years we've been actively
14 working to create the American Society for Collective
15 Rights Licensing, goes by the acronym of ASCRL, a not-
16 for-profit collective management organization, a CMO,
17 dedicated to securing and distributing equitable
18 compensation to authors and rights holders for the
19 secondary use of their visual works. It's one piece in
20 the needed revenue stream in the digital marketplace.

21 ASCRL is predicated on the belief that rights
22 holders must be equitably compensated for the
23 reproduction, distribution, and display of their works.
24 Many of these uses, especially in the digital space, are
25 currently made without any compensation to the rights

1 holder. ASCRL will secure a revenue stream for visual
2 artists as compensation for secondary uses of their
3 visual works and will distribute the revenue directly to
4 rights holders and their authorized representatives.
5 Dedicated to minimizing expenses and maximizing the
6 return to creators in an open and transparent manner,
7 ASCRL is the only rights holder managed non-profit CMO in
8 the United States striving to create equity for authors
9 of visual works.

10 Initially ASCRL was governed by a board of
11 directors comprised of three founding members. One is
12 myself. The other two ne'er-do-wells are in the back
13 corner, Jeff Sedlik and Michael Grecco. Jeff was
14 previously on a panel here. He's the founder of the PLUS
15 Coalition, a working photographer, long-time advocate for
16 photographers. Michael Grecco is a world-renowned
17 advertising -- primarily advertising and editorial
18 photographer. He is the advocacy chair for American
19 Photographic Artists, a visual arts photographers trade
20 association.

21 We serve as uncompensated volunteers and we're
22 advised by an advisory board comprised of distinguished
23 educators, advocates and industry partners. I have to
24 acknowledge the support of APA, American Photographic
25 Artists, who've provided ASCRL with the seed money to

1 date to get us to where we are at this point, and we're
2 grateful to them for that support.

3 Other trade associations may represent the
4 interests of authors and copyright owners by joining the
5 ASCRL affiliates counsel, and the board and counsel would
6 be adjusted in size and composition as a need arises.

7 Our advisory board members are Bill Rosenblatt,
8 who is here today; Jim Griffin, Julie Anixter with AIGA,
9 and then we have an affiliates counsel right now that
10 consists of AIGA, the Society of Animal Artists, the
11 Guild of Natural Science Illustrators, the Professional
12 Photographers of America, American Photographic Artists,
13 and we have a general counsel in the name of Jamie
14 Silverberg.

15 That's pretty much it. Again, we're striving
16 to compensate rights holders for, again, these many
17 uncompensated uses. In the future, we're going to
18 explore compensation for uses in social media and public
19 lending right to see if U.S. authors are entitled for
20 those payments. Thank you very much.

21 MR. TSE: I fully understand I'm the man
22 between you guys and lunch, and so I will keep this
23 quick. I'm the CTO of Monegraph, a distributor
24 (inaudible) monetization platform. This project did not
25 start in some corporate office with a strategy office

1 discussing how to string five words together, but it
2 actually literally started as an art project. So
3 Monegraph was a result of a 24-hours hack-a-thon
4 between an artist, Kevin McCoy, my cofounder and
5 partner in this, and Anil Dash, an internet celebrity and
6 recent new CEO of an important company in the software
7 field.

8 And they decided to find a way to sell a .gif
9 to each other for \$5 and using the bitcoin blockchain as
10 proof that they indeed transferred that ownership of that
11 .gif. And that's obviously a commentary on how social
12 media has completely destroyed everything you've ever
13 done. I was the head R&D at McGraw-Hill, been a long
14 time coming in digital publishing, single-source
15 publishing, XML stuff. I know that's not cool anymore,
16 but, you know, I was there. And then social media
17 happens, it's like, well, that's all out the door, let's
18 start over or not do anything.

19 But when I saw that project -- and I was not
20 there at the conference -- I say, well, there's something
21 really interesting about this, is that Monegraph is
22 actually trying to do something for real. And that's
23 when I decided to join as a cofounder and as a team and
24 the CTO of the company to try maybe in a very, very
25 narrow way around art, around digital art, this very

1 narrow, little small -- much smaller than photos,
2 commercial photos, music, video, or streaming, because we
3 can see we can actually make an impact.

4 So this is what we've learned. We know that
5 people can have brokers in certain markets, whether it's
6 Getty or to have the stock market, but when it comes to
7 most what people who are young artists participate in
8 today, they just give this stuff away because they want
9 distribution, they want attention.

10 On the other hand, you can also keep everything
11 in your wall garden, by that means hard drive. So you
12 keep stacks of stacks of them, all different colors and
13 build quality, and hopefully one day someone comes to you
14 and you do a Word document and you license something and
15 you'll be one of, you know, five people who have done
16 that. And there are many people to help that five
17 people, but most people it's in this promotional aspects
18 of it.

19 So to me it's a great opportunity to take this
20 particular market and say, is there a way for us to do
21 something where we can take this information or this
22 proliferation and this productivity and monetize it in
23 some way, with a respect of rights.

24 So essentially what we want to do is to build a
25 YouTube-meets-Paypal for creators. So it's a way for us

1 to work on attribution. Again, the standards
2 conversation we'd love to participate and we are
3 currently participating as part of the W3C permission
4 obligation working group. Renardo, who works with me, is
5 actually chair of that group. So we definitely want to
6 do this the right way through the standard body.

7 But we want to -- and this presentation is
8 about showing you what we have done in this narrow slice
9 way end to end with UI and beautiful things and people
10 actually using them. So we want them to attribute using
11 the bitcoin blockchain as a way to record that that
12 actually happened. We want them to acknowledge
13 ownership, both on the web and linking to it and having a
14 page on the web that you can show that you actually own
15 something.

16 We want them to distribute it. This is not
17 just about attributing and showing, like, four years
18 later with a piece of paper or a hard drive or some
19 printout of some bitcoin blockchain record. We want
20 people to immediately distribute it, and most importantly
21 monetize it.

22 This is really hard to do. So I don't think we
23 have solved it. I think we have begun to see how this
24 might come together. And so there's two parts of it, the
25 registration and management, and the registration also

1 requires media management. There's many rights database,
2 some of which I built, that you can't see the thing
3 that's being managed. What is this thing that is
4 represented by this string of digits? I don't know what
5 it is. Can you show it to me? No, it's the rights, we
6 don't know what it is.

7 And so I think media management, what is
8 typically called digital asset management system, or
9 Youtube, is definitely part of that correlation. And,
10 then, more importantly, once you have that, how do you
11 distribute it and publish it in this world of social?

12 So the basic technology is basically three
13 parts. One is we're using blockchain in this case. We
14 built a bitcoin-based blockchain as the basic registry of
15 rights. And that's actually pretty tricky, right,
16 because it's not just about, you know, I have a thing and
17 here's a title on the blockchain, one record.

18 We actually figure out if there's a way for us
19 to distribute these tokens and say, hey, I have the title
20 of this, which is one token; you have the rights to use
21 it, that's another token; I have transferred to you the
22 resale right to use the token, that's another token. So
23 you can imagine breaking down what may be in one contract
24 into clauses, and each clause, the right to resale, right
25 to license, is a separate token. And that allows us to

1 preserve the ability for you to not license something you
2 don't own the rights to resale. Right? Because I can
3 say, hey, do you have the resale token.

4 So that's a lot of stuff going on. There's
5 some patent-pending stuff that hopefully I'll go upstairs
6 and knock on a couple of doors and hopefully move that
7 along. But part of that is with these kind of tokens,
8 you can now license a portion of these rights by looking
9 at that token as an actual asset you can trade to allow
10 the opportunity for, you know, retail but also financial
11 services or buying a bunch of tokens from someone at a
12 certain fixed priced in (inaudible) kind of way, And by
13 using a digital cryptography foundation of that you can
14 enable that marketplace.

15 And, finally, multichannel distribution where
16 that's going to social, which has not really been
17 monetized, but existing (inaudible) which has been
18 monetized. There are a lot of opportunities there, and
19 hopefully we can provide that glue.

20 Hand Fu (phonetic), this is the result of the
21 extended art project, which is we wanted to find a way to
22 explain all of what I just said to an artist. And the
23 way we learn how to do this is that beautiful user
24 interfaces that looks and works like all the things that
25 people are doing on filters, on Instagram, and we have

1 the express right and the language they understand. What
2 do you want to do? You want to sell it, you want to give
3 it away, you want to consign it into a gallery. Do you
4 want to register it and worry about it later?

5 What is edition size? Again, this is narrow
6 within art, and it certainly can be -- you know, is this
7 a composition or is it a recording, if it's ex-centered
8 music and right now is only dealing with art as a way to
9 demonstrate this concept. And you can have a slide going
10 from exclusive work to things where you have limited
11 edition where there's only a thousand tokens possible to
12 a limited work, which is very similar to a stock photo.
13 And certainly price is alongside with that.

14 But it's all summarized in this language, I
15 want to sell this exclusive artwork for \$150. The
16 owner can resell and remix. That's the type of things
17 that when we present it to artists and people in the
18 creative community, it's like, hey, I get this, I get
19 this.

20 And with that, we also have the ability to say
21 this is what the end-user will see, or the potential
22 buyer, summarized in a form where we express, hey, this
23 is limited edition, what does it mean, what is edition
24 size? This is actually my work. I don't draw anything
25 pretty. I do draw a lot of diagrams as a tech geek. So

1 this is one of the diagrams. Why don't I just put a
2 diagram and see if anybody bought it? And Mr. Benji
3 Rogers bought it for \$25, thank you very much. I really
4 appreciate your patronage. So I can now claim to be an
5 artist like all the other amazing creative talent that is
6 using Monegraph to the platform.

7 Underneath this is two things. For those
8 that's interested in standards, it's actually -- we have
9 expressed all of these things about editions and remixed
10 rights in ODRL, open digital rights expression language,
11 which is currently under standards track development at
12 W3C. But we also encode this in a blockchain. That I
13 won't get into in this meeting. If you want to see it,
14 come to me during lunch.

15 But what's interesting about this is this
16 is actually a diagram about me pontificating with
17 Benji when he came to me and said, I like what you did
18 with Monegraph, you solved the music problem. And I
19 spent an hour talking to him and I say, there's no way
20 I'm going to work with this project, this is insane.
21 And then after multiple phone calls I drew this
22 diagram, if we're going to do it, we're going to do it
23 this way. And then many things happened since and
24 much to the satisfaction of a lot of people tracking
25 Benji's work. But this was my time stamp. I don't know

1 what the date of it is on here of the day I drew this
2 diagram.

3 What we're working on now is starting to
4 say, now, assuming you have a registry -- and hopefully
5 the standardization happens, we'd love to use the
6 standards -- how do you distribute this thing? And what
7 we've learned is that much like the gentleman from
8 Creative Commons, the likelihood is that everything is
9 going to be a closed system of some sort, some sort of
10 Netflix, some sort of, you know, subscription thing and
11 Spotify. And that's all a good thing.

12 But that may be even better if each artist can
13 have their own or each creator can have their own
14 channel, then still retain the rights. So what we have
15 decided to do -- and this is an experimentation -- is
16 what we call co-defined media, which is to say why don't
17 we give the artists the player architecture, the hosting
18 architecture. They become completely 100 percent in
19 control. Derived from the work and the rights that they
20 have registered, give them the player to share socially,
21 but when it's streaming it's -- it could be uploaded
22 promotionally as a auto-play video that I spent a lot of
23 time browsing through on Facebook, but once you click on
24 it, this -- on the left side here is a film that my
25 cofounder and artist, Kevin McCoy, made. And this was

1 covered in his show at the Postmaster Gallery in downtown
2 Manhattan, was covered by New York Times, as a commentary
3 on gentrification.

4 But that film was distributed exclusively on
5 this custom player that we're building. We'll hopefully
6 build more and more templates for journalists, the middle
7 one to be able to build channels that has monetization
8 options built into that and be able to, you know, bring
9 some of those content from Snapchat over to a wider
10 audience, so Snapchat for parents so we can distribute
11 through Facebook and Twitter and other platforms or
12 things we haven't seen.

13 So this is something we're experimenting with
14 with that foundation of registry, what type of media
15 experience is there? Very new, very experiment -- a big
16 experimentation for us. And if you are interested in
17 learning more about, you know, this art project and the
18 extension of the platform this can become, and the doors
19 that this opened for us as Monegraph and me personally, a
20 new friendship I made from Benji, have looked at this
21 tool and say, hey, why don't we discuss how we can work
22 together.

23 And I think you will see in the coming weeks
24 and months and the stuff from Monegraph, and also from
25 .bc as an extension of this real thing. So, thank you.

1 (Applause.)

2 MS. ALLEN: Thank you all. And with that, we
3 are breaking for lunch.

4 (Lunch recess and unreported breakout sessions
5 commenced.)

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1 **AFTERNOON SESSION - PLENARY DISCUSSION**

2 MS. ALLEN: So it's time to begin the plenary
3 session, if we could wrap up the table discussions. So
4 if we could have each of the facilitators come to the
5 panel and bring their table card they are going to
6 present. If it's a note taker, the note taker could come
7 without the tent card. But if -- no, it was just the
8 tent card.

9 The question was asked, do you need the tent
10 card number? The answer is no, just the tent card, not
11 the table number. So you know your name. Awesome.

12 Last call. Is Jim here, Jim Griffin?

13 So welcome back. This is the plenary portion
14 of today's discussion. What we have asked our
15 facilitators to do is to give a quick summary, three, no
16 more than five minutes, but preferably closer to three,
17 of what was discussed at their table. The issues, the
18 challenges, the ways forward.

19 What I will do is read out the table topic, let
20 -- and I'll just go down the row and let each person
21 speak. After that, we will open up the floor and the
22 webcast for any questions. The first question will be,
23 you know, what are your thoughts about these table
24 topics? Is there anything that we might have missed or
25 anything that needs to be elevated, et cetera. So keep

1 that in mind.

2 We will then have a few more questions, time
3 depending, and also ask the question of what should the
4 role of the government be in the future.

5 So that is really the rest of the afternoon
6 with closing remarks from John Morris. With that, I will
7 turn to Jim Griffin, who had the topic of "Who Writes the
8 Checks: Monetizing Registry Efforts."

9 Jim?

10 MR. GRIFFIN: There we are. I confess that the
11 note taker was so very good that I got lazy of keeping
12 track of what we were talking about, but I did try to do
13 the very best I could. But you did a great job.

14 The topic came up where we reviewed the
15 different parties who could be responsible for financing
16 registry efforts. And so we looked at government models,
17 for example, with the Copyright Office, and yet I think
18 we quickly veered away from it principally because the
19 green paper was relatively persuasive in the past that
20 indicated that they would like for other parties to step
21 in and take care of their particular areas. And so the
22 notion was that the PLUS registry that is being run, for
23 example, would be a fine place to put responsibility for
24 photographs. And, likewise, there could be another
25 registry that took care of, say, photo records, et

1 cetera.

2 And so we quickly got off the notion that it
3 needed to be exclusively government, and we thought
4 deeply about how private enterprise could fund registry
5 work. And we noted that there are all manner of parties
6 ponying up \$185,000 a piece to want to run a TLV, a new
7 generic TLV. That's everything like a dot-com, dot-edu,
8 dot -- so, for example, there are eight applicants for
9 dot-music who've ponied up \$185,000 just to take on the
10 responsibility of building a dot-music registry.

11 And so we note that there is the potential of
12 profit and that that has incentivized many to go into the
13 registry business. But where we, I think, settled, if I
14 was to call it like an umpire, was on a hybrid approach
15 that would have a wholesale registry at the center with
16 retail activities at the edge.

17 And the model that we liked the best based
18 purely on performance, existing performance, is the DNS
19 model, that it gives answers in single-digit milliseconds
20 in most cases. And we theorized that that would be the
21 kind of response that one would need if a registry was to
22 be used for policing the net, for example, that you would
23 need single-digit millisecond responses to interdict
24 purloined materials or whatever was happening on the net.

25 And that the notion of wholesale and retail

1 activity best represented what we thought would get this
2 market going correctly; that, for example, ICANN runs a
3 wholesale registry and then there are all manner of
4 parties at the edge, at the retail edge who compete on
5 price and service to provide good registry activities.

6 And so this is a model that struck us as a
7 strong model for moving forward, and we did see -- I
8 guess you're going to ask this question again later that
9 the government could be in the position of funding
10 wholesale approaches working with parties, and critically
11 they could be a big part of accrediting those who would
12 work at the retail edge; that this would not just be a
13 wild, wild west of people who would perform as do, say,
14 GoDaddy and others.

15 We also noted that there is an advantage to a
16 wholesale retail model in that the parties operating at
17 what we would call the retail edge needn't be for profit.
18 They could, for example, with DNS, likewise be
19 universities and non-profit organizations and others who
20 could operate that retail edge in competition with
21 parties who are for profit, as happens with the DNS
22 system.

23 So it's probably just to conclude that we liked
24 the DNS model, the way it performs. It's a good example.
25 We think it's a good example for thinking about going

1 forward.

2 MS. ALLEN: Thank you, Jim. Next up we had
3 Bill Rosenblatt, who also combined with Ed Klaris. So it
4 was a joint -- no, I'm sorry, Ed combined with Paul,
5 you're right.

6 So the question was what standards for rights
7 metadata are in development now, and what is their
8 potential?

9 MR. ROSENBLATT: Okay. Hello there. So what
10 we did was we went around and kind of gathered the wisdom
11 of the table about different segments of the copyright
12 fields, and what metadata standards there are in that
13 segment for rights and how is that standard doing, how is
14 it faring, are there systems that use it that are up and
15 running and so forth.

16 And the first thing to sort of realize or to
17 contextualize this properly is that there are blurry
18 lines between or among metadata protocols that use that
19 metadata and registries that use those protocols and that
20 metadata. And so you might have a metadata standard that
21 is used by and better known as a registry, just as an
22 example.

23 So with that in mind, I'm just going to go down
24 the list of what we discussed. And this is going to be
25 an alphabet soup for those of you are not wallowing in it

1 as some of us are on a daily basis.

2 In the cultural artifacts field, as exemplified
3 by the New York Public Library, they're working on
4 something which has yet to be named, which is a rights
5 metadata standard for cultural institutions such as
6 libraries, museums and so forth, and they are attracting
7 the attention of major audiovisual entertainment
8 companies who see a lot of commonality to what they're
9 doing. But they have -- they haven't published a spec
10 yet. They're working on it. But the NYPL is the sort of
11 800-pound gorilla of librarydom, and very extremely
12 influential. So that ought to be very interesting.

13 In the music area, we've already heard about a
14 couple of important initiatives going on, the Open Music
15 Initiative, which is not a standards body, per se, but
16 certainly standards are becoming defined or associated
17 with the OMI as it goes forward.

18 And one of those Benji Rogers talked about is
19 the concept of the minimum viable data for identifying
20 musical works, and that has gone along -- it's on its way
21 to being defined now. It's kind of in the -- I'd say
22 home stretch of becoming finalized, and it's really gone
23 on to two tracks, no pun intended. One is the track of
24 what's the really minimal amount of data that everyone is
25 willing to share amongst each other, and that's a very

1 small number of fields, and then there is the much larger
2 group of data that is necessary to complete a transaction
3 of royalties or whatnot, a much larger set of fields.
4 And so that's also coming along and the dot-blockchain
5 organization is building technology around that, and
6 technology around that will also presumably come out of
7 the open music initiative.

8 I'll get back to music again in a moment, but I
9 want to move on. In book publishing, besides the aspect
10 of it that affects the library community that I just
11 mentioned, there isn't that much going on right now.
12 There was some activity to define a rights-controlled
13 vocabulary standard during the time a few years ago when
14 the book -- the Google book scanning litigation was hot
15 and heavy and there was a proposed settlement on the
16 table which involved the creation of an online rights
17 registry for book content. Then as many of you know, the
18 judge in that case rejected the settlement and so that
19 book rights registry sort of vanished in a puff of smoke,
20 which personally for me is a tragedy. I thought that was
21 a great idea and could have been built on in certain
22 interesting ways.

23 So there is a book industry standards body
24 called the Book Industry Study Group, which is kind of
25 revisiting that whole area. But without the specific hot

1 button need of the Google Books litigation settlement to
2 incentivize the development of a standard, we're kind of
3 -- and I'm on this committee in the BISG, we're kind of
4 looking for the right business contexts on which to build
5 standards. So that's where that is.

6 In photos, there is the PLUS system, which is a
7 registry and has a set of standards for metadata. And
8 that's been under development for some time and it's, you
9 know, getting ready to go, I would say. A lot of
10 stakeholders in this room interested in that.

11 And then there's RightsML in the news business.
12 Stuart Myles is here, who's, you know, the horse's mouth
13 on that. And that's also in development coming along
14 very well, but not, you know, in production yet, I would
15 say. And please correct me if I'm wrong.

16 The one that I've saved for last is actually
17 the one that I believe is really up and running as a
18 going concern and has been for a few years now, albeit
19 among a small subset of its area, which is consumer
20 magazine publishing. There is the PRISM Rights Language,
21 which is part of the PRISM standard for metadata for
22 magazine content, and it comes out of places like Conde
23 Nast, Time, Inc., Hearst, Meredith, places like that.
24 And there's sort of a narrow subset of those entities
25 that use this right now. PRISM is one of these reverse

1 engineered acronyms, it stands for Publishing -- Ed, do
2 you remember what PRISM stands for? Publishing something
3 for Industry Standards Metadata. They came up with a
4 name and then they figured out what it stood for.

5 So that -- and then the last thing that I'll
6 mention, once again in book publishing, is OPDS, which is
7 a syndication standard for e-books that has come out of a
8 group of publishers and e-book aggregators, retailers.
9 And the NYPL is also involved in that.

10 We finally discussed a few of the big
11 successful proprietary rights licensing metadata
12 standards that are inherent in schemes that are up and
13 running now, and the two biggest ones would be RightsLink
14 from the Copyright Clearance Center, which is primarily
15 involved with what's called STM Journal articles --
16 scientific, technical, medical journal articles from
17 publishers like Wiley, Elsevier, Wolters Kluwer and so
18 forth, and then Getty in the stock image space. They
19 have their own kind of licensing hub.

20 And then finally in the music area, there are a
21 couple of entities that are trying. There's so many
22 different rights to license, there a couple of entities
23 that are trying to roll up and become sort of one-stop
24 shopping services for rights licensing. And SESAC in the
25 United States would be one where they acquired the Harry

1 Fox Agency and they're trying to become this one-stop
2 shopping. And then in Canada, SoCan is essentially
3 trying to do the same thing up there, and they're a
4 little smaller than we are so maybe it's a little easier.
5 But that's what's going on there.

6 So that's kind of where we got to, and I'm sure
7 I've gone way over three minutes and so I'll stop. Thank
8 you.

9 MS. ALLEN: Thank you, Bill. Next up is Paul,
10 and Paul paneled "Interoperability Among Centralized
11 Proprietary Registries versus Open-Sourced Registries,"
12 and also with Ed was talking about turning contracts to
13 code.

14 MR. JESSOP: So you get twice the volume, half
15 the quality, and a very confused reporter. Dealing first
16 with turning contracts into code, it's very clear to us
17 we're not just talking about turning contracts into
18 blockchain smart contracts where there's a bunch of other
19 scenarios where some sort of machine -- readable machine,
20 interpretable chunk of code, gets used to specify whether
21 it's an entirely electronically mediated contract or as
22 the way of specifying the terms of a regular contract
23 through the use of expression languages like ODRL.

24 So we tried to look at both of those and it
25 became clear that we need to distinguish between how we

1 deal with the world going forward, the bright new horizon
2 of entirely documented systems which are designed for
3 this environment from the outset, versus how we deal with
4 the history of written contracts which have been locked
5 in musty filing cabinets for years, which were designed
6 to have wiggle room in them, which are intrinsically not
7 suited to electronic interpretation. So that's going to
8 give us some specific difficulties in dealing with it.

9 The requirements for either of these to happen
10 are a common vocabulary of the way -- of how we interpret
11 words. At the moment, we have sort of statutes give us
12 definitions of what these words mean, but unless both
13 parties through a contract have a common understanding of
14 the intended meaning, the outcome or the deliverable will
15 not be what was expected, which would be unfortunate.

16 So we need to have both structure, schema, and
17 definition ontology of what the -- how the words fit
18 together to express the desired outcome from the
19 contract. None of those is quite there yet.

20 Who should define these things? Well, the
21 government could do so, and indeed the government does do
22 so -- well, one of the arms of government does through
23 legislation. And that may or may not be adequate. The
24 market will define the rest either through adoption of
25 particular proprietary systems or through coming together

1 in standard setting organizations.

2 We detected a risk that the effective veto
3 power of some large organizations might prevent an
4 effective standard setting, not necessarily to everyone's
5 benefit. An interesting question was the risk of
6 information leakage. If you need -- if you invent a new
7 business model and you need to have a term specified in a
8 rights expression language to accommodate that, then
9 going through a standard process effectively informs all
10 the competitors of what you're planning to do long before
11 it actually happens.

12 So specifically the government -- I know this
13 is a question you're asking us -- could do one of a
14 number of things. We're not really sure, but it should
15 certainly encourage this area. It may have a role as a
16 publisher of the results of some public/private
17 partnership in setting vocabularies.

18 Moving on to the registry issue, and I'm trying
19 particularly hard here not to editorialize since this is
20 my patch, we looked at the term open source registries,
21 and we're not really sure what that means. We interpret
22 it as crowd-sourced registries or self-registration
23 processes, and that seems to fit as the opposite of
24 centralized proprietary registries.

25 In order to look at this, we need to understand

1 what they're trying to do, what's the purpose of the
2 exercise, are they there just to provide identity or are
3 they there to provide a soup to nuts rights management
4 trading platform? And when you've decided that, you can
5 work out what they need to do.

6 Interestingly, reputation management kept
7 coming out in both the first and the second area. How
8 much do you trust the assertions that are made? How do
9 you use the ability to validate or indeed challenge the
10 data that's in the registry if you believe it's wrong?

11 Interoperability seems to be one of those great
12 things everyone wants but nobody quite agrees on what
13 they mean by it. We have a horizontal interoperability
14 between different registries in the same field, different
15 implementations that need to work with each other because
16 they're providing the same sort of information, but
17 different subsets of a common class. But, also, vertical
18 interoperability where different classes of things need
19 to use the same terms as you go down the supply chain.

20 Again, what is the government going to do here?
21 Well, it can help with defining the vocabulary, the
22 schemas and so on and maybe act as a publisher. But
23 there was no great enthusiasm for incorporating the
24 existing corporate office systems into that. I know we
25 had a very great deal of work being done on them, though

1 I know that's starting to happen.

2 Are these things a natural monopoly that the
3 government should be doing? Maybe not, I think was the
4 conclusion of our group.

5 MS. ALLEN: Thank you very much, Paul. Lance
6 on blockchain technology.

7 MR. KOONCE: So I've been -- I've been talking
8 and writing about blockchain technology for a year or so,
9 and thinking about it for a little bit longer. One of
10 the things that is clear when I'm talking to different
11 people is that there are people who are sort of immersed
12 in this that really are at an incredible technical level,
13 and then there are people who have really -- are just
14 getting to know the technology at all.

15 And our table was more of the latter today, so
16 we spent most of our time just sort of level setting on
17 what blockchain technology is. The question that I was
18 asked from the start and then over again by different
19 people is sort of, you know, what is blockchain good for?
20 I mean, is it -- do we really need the technology for the
21 things we're talking about here? The short answer to
22 that from my perspective is yes and no. There are things
23 that it's good for, things that it's not.

24 There's been an interesting pivot over time
25 from people who only talked about Bitcoin and

1 cryptocurrencies and pivoted from that to talking about
2 blockchain technology as the underpinning of those
3 cryptocurrencies and how it could be used elsewhere. And
4 then I think we heard some of this earlier today, there's
5 been a pivot away from sometimes -- from even talking
6 about blockchain technology to talking about distributed
7 technology generally and how that can be used. And
8 blockchain acts as a bit of a wedge in sort of opening
9 the door to having conversations about how any kind of
10 digital data, but in this context content, can be shared
11 especially among parties that don't necessarily trust
12 each other from the start, you know, where people have
13 different silos and where blockchain can sort of -- or
14 other distributed technologies can facilitate the sharing
15 of that data.

16 A couple of the key points that we talked about
17 were that there's a distinction when you're talking about
18 blockchain technology in particular between the content
19 itself and limited data about that content, which is what
20 really gets moved on blockchains. It's essentially keys
21 to the underlying data. So that's a distinction that a
22 lot of times gets lost. Some of the folks that were on
23 some of the panels earlier today I thought, you know,
24 broke that out pretty well. But there is a real
25 difference between blockchains which move keys to unlock

1 access to digital data and moving the data itself, and
2 blockchains are terrible for moving content. They just -
3 - they can't really be used for that.

4 So that's an important distinction that I think
5 when you're talking about this type of technology that
6 people need to understand and that we talked about at
7 some length. There are distributed technologies that are
8 good for moving content. I mean, the first one we saw
9 was Napster. Torrents are great for moving content. And
10 so even though all of those, just like bitcoin sometimes
11 has a negative reputation for being used for dark -- dark
12 market goods, you know, there will be uses of peer-to-
13 peer technology for moving content as long as it's secure
14 that are going to be really interesting coming up in the
15 next few years.

16 So we went through that. We talked about the
17 ways in which blockchain technology and related
18 technologies do impact content. One of the primary ones
19 we talked about is registration. That's sort of the
20 identification level of the content. We heard from
21 Blockai earlier today and from Monegraph and Ascribe.
22 That's one level of what's being done.

23 Blockchain technology and related technologies
24 are also very good for the tracking side, and that's I
25 think what really has gotten people particularly

1 interested is that you can create these unique
2 identifiers for a piece of digital content and then track
3 the use of that sort of token for that content, add to it
4 and keep it secure and immutable. And then the next
5 level is the smart contract level that the other table
6 talked about, and we touched on that and how that fits in
7 with these technologies and why these technologies have
8 enabled that -- the sort of -- the new idea of how smart
9 contracts will work living on a blockchain, although as
10 you said they certainly don't have to.

11 So -- and then we talked a little bit about
12 micro payments and whether that's something that's going
13 to really come into play. There's always been talk about
14 blockchain being a facilitator of micro payments really
15 coming into being because you reduce the friction in the
16 payment system that's currently there and can bring costs
17 down for transactions. You know, from my perspective -
18 and we talked about it a little bit -- is that that's
19 probably right now still a ways away, but it's -- it's
20 certainly a promise that will be interesting to see if
21 that comes through.

22 And then we spent a little more time talking
23 about essentially the stack for these types of
24 technologies. Blockchain and some of these other
25 technologies will ultimately be plumbing. You will not

1 be going to consumers and saying I've got a great new
2 blockchain app. That really should not happen. The user
3 experience will be completely different, but those of us
4 who are involved deeply in content and IP, it's really
5 helpful to understand how these things work. And with
6 that, I can turn it over.

7 MS. ALLEN: Okay. So the next panelist is
8 Brian Scarpelli, and he's with ACT/The App Association,
9 and will address what social user needs need to be
10 addressed and/or supported to advance the online
11 marketplace for copyrighted works.

12 MR. SCARPELLI: Thank you very much. Yes, we
13 had a -- I think a pretty robust group that really
14 represented all different kinds of viewpoints and types
15 of copyrighted works. So thank you to everyone who
16 contributed there.

17 Pretty much we started initially with just
18 talking for a bit about who we mean when we're talking
19 about user needs. So we more or less settled on users --
20 that is a bit of -- it's not a very simple term, you
21 know, as you all probably know, but users as consumers,
22 users as creators who use other content, but, you know,
23 an important suggestion that we had that we seemed to
24 find some agreement on was this group would not include
25 those who knowingly illegally, you know, would use a

1 copyrighted work.

2 Then we talked a good deal about -- after who
3 we are, what do we need, what are these needs. And there
4 was a great discussion there, and so just to summarize
5 what some of these are. A number of these kind of are
6 interrelated or looped together, and they're certainly
7 not in any order of importance.

8 But merged -- we found some agreement around
9 the need for accessibility to information on legitimate
10 creators and buyers by accessibility that meant a number
11 of things to a lot of people -- accessibility in the
12 sense that it is digitized, it's open, and even
13 accessible to those with disabilities themselves.

14 Second one I'll note is a need for increased
15 awareness and I suppose you could say education on
16 copyright-related roles and responsibilities. And really
17 I suppose that is linked to clarity or certainty on what
18 those roles and responsibilities are.

19 Another one worth noting, the use of as robust
20 as possible metadata with these copyrighted works
21 regarding artists and creators, and there was a couple of
22 reasons given for that. But that was one that was
23 something worth noting.

24 And I think the last -- the last one I'd note
25 is -- and, again, these are sort of related to certainty

1 in application of the law and clarity. But as you float
2 between jurisdictions, even to other countries, the --
3 you know, the certainty in the application in that
4 context.

5 I hope I've fairly summarized a number of the
6 needs that we talked about there. I suppose the last
7 part would be how or how could these needs be addressed,
8 and more specifically I think to what we were tasked with
9 is a governmental role in answering that question.

10 We did talk about some ongoing good work that
11 would -- that is seeking to list legitimate sources. The
12 RIAA, the MPAA, were both mentioned by one of the members
13 of this little roundtable that we had, and that those
14 should be encouraged and leveraged, I suppose. But we
15 did -- we did talk about how, you know -- we are talking
16 about copyrighted works and how the Copyright Office
17 could ideally provide that information that -- provide
18 information on copyrighted works that would speak to a
19 number of these needs that we identified.

20 I realize that, you know, it's going to be --
21 it might be a little more difficult for the Copyright
22 Office to address application of copyright law in another
23 country or something like that. Those are legitimate
24 needs we noted anyway, but I think the Copyright Office's
25 role was probably the main recommendation.

1 MS. ALLEN: Thank you so much, Brian. And then
2 finally, Stuart Myles, with a topic "What are the
3 Practical Steps to Adopting Standards for Identifying and
4 Controlling Copyrighted Works."

5 MR. MYLES: Thanks. So I had table one. So
6 table one, as everybody introduced themselves, most
7 people said I'm just an observer, I'm just here to learn,
8 I just want to be educated. But then we had a very
9 vigorous discussion that went all over the place. So I'm
10 going to try to summarize that in three main areas.

11 First of all, what are the problems that we're
12 trying to solve with standards and with rights. Then I'm
13 going to talk a bit about what are the forces that are
14 making those problems hard to solve, and then finish with
15 these are the things that we think are more or less
16 concrete steps that we think the government and other
17 organizations can help to solve those problems.

18 So in terms of what is it, why do we need
19 standards, why do we need rights, we have representatives
20 from the music industry, photos, cultural works, news, so
21 all over the place. But there was a common theme of
22 there's millions of dollars that should be being paid to
23 artists and to rights holders that are not necessarily
24 getting there.

25 Equally, there are people who are artists who

1 want to be recognized for their work who may, in fact,
2 want their work to be used, not necessarily paid for that
3 work, but used to create other cultural objects. So
4 different industries but very similar needs.

5 So what are the -- we picked in summary three
6 things that we think are forces that are making those
7 problems hard to solve, and the first big one really that
8 dominated is technology. So on the one hand, it's too
9 easy to run a search against Google and find an image and
10 download it and say, well, I found it on Google so it
11 must be okay to use. So people don't necessarily know
12 that they are violating rights.

13 On the other hand, it's too difficult, the
14 technical process of applying metadata, keeping that
15 metadata through the work flow as content flows around
16 the internet, is arguably too difficult. And a lot of
17 artists and creators don't necessarily want to deal with
18 a lot of words and numbers, particularly the visual
19 artists. So we felt that that was a barrier that
20 technical platforms could help with.

21 So the second big thing that we talked about
22 was the culture, sort of culture of the internet. So in
23 a lot of ways this is being promoted by technical
24 platforms and philosophical movements like the copyleft
25 movement and so on that once more cultural work is

1 created and not necessarily a big fan of rights.

2 And then the third thing that we talked about
3 was human nature, that people often think that like,
4 well, if I'm downloading this work or I'm making use of
5 this work, you know, it's Disney or it's Katy Perry and
6 so on, so there's no real harm, you know, they're making
7 tons of money anyway, it doesn't really matter if I do
8 it. So all we have to do is solve technical problems,
9 change the culture of the internet, and overcome human
10 nature.

11 So the ways that we thought that we could make
12 progress on these things, both government and
13 organizations, standards bodies, and others. So we felt
14 that there's a role to be played in terms of education.
15 So people often don't realize that they should be
16 observing rights or paying licenses or providing
17 attribution. So we think that there is a role for
18 government and others to educate people more about what
19 they're doing and what they can do and what they should
20 do.

21 We felt that there is a role for government to
22 do things like we're doing today, which is to promote
23 discussion and have a balanced view between all of the
24 different people who are part of or interested in rights
25 and in cultural works and in commercial works.

1 And that's a similar thing to what a lot of
2 standards bodies can do as well, is to bring together
3 different players and try to balance out things so that
4 it's not dominated by one group or another.

5 There was an interesting suggestion that
6 government might play not to dictate picking a standard,
7 but perhaps -- to all of industry, but perhaps instead to
8 say if you want to work with us in this particular --
9 similar to the way the ADA, one of the effects of the ADA
10 is, that to say, like, well, if you want to work with the
11 government in this way, you need to implement this
12 technology or work with one of these standards. And so
13 once companies have to do that in order to buy or sell
14 from the government, then maybe that encourages people to
15 go with one particular standard.

16 We also felt that working with standards bodies
17 like W3C or IPTC could help because, as was mentioned
18 earlier, there's quite a few standards that are being
19 produced or worked on, and so maybe working with those
20 standards bodies that work internationally might be a way
21 to help accelerate some of that work and help accelerate
22 some of the adoption.

23 And at this point I'll put in a plug for a
24 meeting that we're holding in London in May jointly with
25 BBC, IPTC, W3C, to help try and accelerate some of this

1 work. So if you're interesting in having further
2 discussions, let me know.

3 And then the final suggestion was that there
4 are concrete things that we can do to accelerate this
5 work, but we thought that it's one of the most important
6 things that the government and similar organizations can
7 do is to keep the conversation going. So we suggest
8 returning perhaps in a year to see where we are and to
9 try to accelerate the work that's been going on. Thanks.

10 MS. ALLEN: Thank you all so much. It sounds
11 like there were very, very robust conversations and a lot
12 -- and that's really what we were looking for, and we are
13 glad that you were able to facilitate.

14 Now, we've just heard summaries of what was
15 said in the breakout sessions. Does anyone have any
16 questions or anything that they wanted to add, points or
17 perspectives in what we've heard, whether you're online
18 or in the room? Question?

19 And I hate to interrupt you, but would you mind
20 using the microphone so that those listening on the
21 internet can hear?

22 AUDIENCE: Thank you. I noticed that there are
23 lots of people here who are engaged in representing
24 various groups of creators, but very few actual creators
25 here in this room or members of creators associations.

1 So if we meet again, can we try to get more such people
2 to participate? Because their voices are valuable and
3 traditionally -- because I'm in the writing end of
4 things, I'm with the AAJA, American Association of
5 Journalists and Authors, and we traditionally in our
6 industry have depended on publishers to speak for us.
7 But now so many of us are self-publishing, we're having
8 to do so much on our own.

9 That's happening in every industry. The
10 creators need to know more and to be able to do more. So
11 can we -- can we make an effort to try to bring creators
12 and creators associations into the conversation? Thanks.

13 MS. ALLEN: Thank you. Are there any other
14 questions or points to raise? Are there any from the
15 chat room? Nope.

16 Okay. Then on to the next question is, we've
17 heard a lot about blockchain and smart contracts as
18 avenues to advance the online marketplace. Would anyone
19 care to add any observations on that topic?

20 MR. JENNER: I speak as a foreigner, and thank
21 you for having me here. I just am struck by the fact
22 that in Europe and in the U.K., any of these discussions
23 would have been -- had a lot of references to
24 transparency. I've heard no reference to transparency,
25 or very little. It's been not high on the agenda.

1 And, further, to the artist, the writer, I
2 think that is probably one of the things they might like
3 to have mentioned. I was a manager of artists for many
4 years.

5 MS. ALLEN: Thank you very much.

6 MR. ROSENBLATT: Did you want me to -- I've
7 been asked to respond to this. So, yeah, there is a lot
8 -- first of all, it's great to see Peter Jenner here, a
9 big fan. A big fan of the bands you've managed. Thank
10 you for being here.

11 I've written a lot of stuff about blockchain
12 and this is why I think I've been asked to respond to
13 this. So there's a lot of hype around blockchain, and
14 one of the good things about hype is that it means money
15 comes in. So there's a lot of money coming in to
16 blockchain-based startups. There's several in this room
17 today that are venture backed and so on. And the
18 availability of money and enthusiasm and skilled people
19 is very beneficial to the development of marketplaces,
20 and it's something -- or at least some subset of those
21 items have been missing from standards initiatives in
22 this area.

23 And so I think a lot of good can come out of a
24 lot of activity. That doesn't mean that all of the
25 activity is going to be productive or going to lead to

1 positive outcomes. That's fine. It's all natural.

2 I happen to feel that in the content and
3 copyright arena, the most appropriate applications for
4 blockchain are in the B-to-B area for automating
5 transactions, for imposing de facto, de jour standards on
6 them for making things efficient and for introducing
7 transparency, to Peter's point, which has been raised in
8 discussions that I've been involved with and not
9 discussions in America, actually.

10 So I hear talk sometimes about blockchain
11 applications for content that go all the way out to
12 consumers, and I'm pretty skeptical about that for the
13 reason that I have yet to hear someone suggest some
14 capability that blockchain technology offers that
15 consumers would actually want.

16 There have been some capabilities that have
17 been suggested, but I don't actually think the consumers
18 really care very much about them. Now, here's one
19 example. I'm going to give you an example, then I'm
20 going to caveat that example.

21 One thing that people sometimes talk about is,
22 oh, consumers are very concerned that the content they
23 are getting is authentic and has a provenance to it. No,
24 they're not. Consumers don't care. I can give you many
25 counter-examples of that, which I won't take the time to

1 do now.

2 The caveat to that is, yes, in the visual art
3 or art works, if such a thing were to develop to a
4 significant size digitally, that is very important.
5 People do buy objects. They don't access them the way
6 they do on Spotify or Netflix or Hulu. They want to be
7 sure that it's not a forgery and so forth, and they want
8 to be able to resell and to make sure that the resale
9 process includes a chain of title and of provenance.

10 Otherwise, no, people don't care about that. I
11 remember back in the first internet bubble the original
12 batch of DRM vendors, some of them touted their solutions
13 as being beneficial to the consumer because you could
14 trust that the content that you were getting from your
15 maybe scientific publisher or whatever was authentic.
16 No, nobody cared about that. So the DRM vendors stopped
17 talking about it.

18 So there's this whole class of direct-to-
19 consumer applications that I don't think blockchain does
20 much for, at least I haven't heard anything about
21 attributes or benefits in that space. I do feel that
22 blockchain can have a lot of benefit for the straight B-
23 to-B transaction processing applications.

24 MR. KOONCE: Can I just add something quickly?

25 MS. ALLEN: Absolutely. That was my next

1 question.

2 MR. KOONCE: So I'm going to be a little
3 skeptical about Bill's skepticism. The -- so I think I
4 can -- I can say that to a certain degree I agree with
5 you in the sense that blockchain technology, some of
6 these other technologies, are ultimately going to be in
7 the background or in the plumbing and not going to be a
8 consumer-facing technology, that there will be
9 applications built on top that will be the consumer-
10 facing technologies.

11 But, for instance, just to give you an example
12 of something that I have heard from folks like Ascribe
13 and Blockai and Monegraph, is that we all know -- those
14 of us who follow copyright that under the Berne
15 Convention when you create something it's copyrighted
16 from the start. You don't need to do anything to record
17 it or register it. You can certainly take it to the
18 Copyright Office and register it, and that gives you
19 extra protections. But it's registered -- it qualifies
20 for copyright protection from the word go. When I take a
21 picture with my phone, it's copyrighted and I actually
22 have a record of it because my device tells -- has a time
23 and date stamp and says when that was taken.

24 What some of these companies that are doing on
25 the registration side, what they're doing is they're

1 offering an ability to sort of create a public record of
2 whatever content you want to take to that level and the
3 attributes that you want to associate with it.

4 And at least from what I've heard, there is --
5 I would not -- as a copyright lawyer, I would not have
6 expected there to be that much uptake since it's not
7 helping you in any real way establish your copyright
8 interest. But from what I've heard, there's a lot of
9 power in giving the consumers the ability to control
10 their content in that way and to say that I've created
11 something that I'm going to take to that level and I'm
12 going to register it.

13 So I'm not sure that's an answer to the sort of
14 overall question of are there consumer applications that
15 are sort of killer applications for blockchain. I'm not
16 sure that there are.

17 MR. ROSENBLATT: It's really about -- you know,
18 I agree, it's going to be in the background. It's more
19 about like what does this enable consumer applications to
20 do that they couldn't do before?

21 MR. KOONCE: Right.

22 MR. JESSOP: Can I have a go at this as well?
23 Can I agree with your skepticism about his skepticism? I
24 mentioned early today about single digital master in the
25 recorded music area. High resolution delivery to

1 consumers is now becoming a thing. People are making
2 money out of it. Businesses are being formed on it.

3 And where those businesses accidentally find
4 that they're delivering something which is inauthentic,
5 which is a low resolution recording which has been
6 upsampled, the consumers are furious. And having an
7 authenticity claim -- whether that's delivered through
8 blockchain or through some other mechanism, I'm
9 completely agnostic about -- but there is in that case at
10 least a true consumer demand for authenticity.

11 MR. ROSENBLATT: I'm not sure I'd buy that, but
12 okay.

13 MR. GRIFFIN: I'm just going to add that
14 transparency is a motive, blockchain is a mechanism.

15 MS. ALLEN: So we have one question -- two
16 questions from the audience.

17 AUDIENCE: Yeah. So one of the things I want
18 to just emphasize, a lot of discussions today have been
19 around standards and interoperability, and in building
20 some of these systems I find that a lot of times it's
21 very difficult to get people to collaborate, to actually
22 do things.

23 So one of the things that I think I'd like to
24 see more being put into is incentive, whether that be
25 private market incentive or anything that government can

1 do to spur action and incentive, because it seems like
2 year after year after year we keep coming to these
3 conferences and talking about what is the standard, who
4 defines the standard. And there's a constant push and
5 pull, but progress is very, very slow, if at all in some
6 areas.

7 So start to think more about incentives, and
8 even if it just means research and understanding the size
9 of the opportunities and what would change and what the
10 effects of certain changes would be, having some of that
11 research to back up some of these assumptions would be
12 really helpful.

13 MS. ALLEN: Thank you. If you could identify
14 yourself, name and any affiliation.

15 MR. MITCHELL: I wish I could. But my name is
16 John Mitchell. I'm still struggling to find my identity.
17 I'm an attorney in private practice in D.C. representing
18 primarily the retail side of copyright and a number of
19 trade associations, which raises the whole issue of as
20 registries, as rules, as smart contracts are being
21 developed in an environment of competitors agreeing on
22 the various rules of the road, it reminds me of an
23 article I wrote a dozen years ago called "Automated
24 Agreements and Restraint of Trade."

25 There are certain things that on a face-to-face

1 transaction we can immediately identify as an antitrust
2 violation. When certain things are baked into the rules
3 and there's a certain lack of transparency maybe as to
4 exactly what the algorithms are doing, we may wake up one
5 day and find that there are a number of felonies that
6 were committed because of the Sherman Act saying you
7 can't do that, whether it's in terms of the agreement
8 itself that might affect price, normalizing it or
9 leveling it or putting caps, or since we are dealing with
10 copyrighted works, which have a legal monopoly, rules
11 that, in fact, have the effect of expanding the control
12 of the copyright owner beyond the express limits that are
13 set out in the Copyright Act.

14 Every copyright in 106 is subject to Sections
15 107 through 122, and it is very easy -- actually already
16 very easy to have terms in there that effectively say
17 despite what Congress said, we get all these rights or
18 you don't get the benefits of these limitations.

19 The suggestion going forward might be to invite
20 someone from the Antitrust Division with the Department
21 of Justice to one of these conferences just to get that
22 kind of reality check. Thank you.

23 MS. ALLEN: Wonderful. Thank you very much. I
24 would now like to turn this over to John Morris for
25 closing remarks and a few thoughts. John is the

1 Associate Administrator and Director of Internet Policy
2 for NTIA.
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MR. MORRIS: Great. Thanks, Susan. We had slotted me to come here in part to kind of make sure we could force a conversation about a government role, but frankly the last 45 minutes, last half-hour, has been an excellent conversation. So, you know, you guys have already done a great deal of my job for me.

Do I need to do something --

MR. ROSENBLATT: I'd just like to add something from our panel quickly, because you asked us to come up with, you know, what's the government's role and I failed to do that. And so I'd like to try and remedy that failure.

MR. MORRIS: Two minutes.

MR. ROSENBLATT: Thirty seconds.

MR. MORRIS: Thirty seconds.

MR. ROSENBLATT: We identified a lot of standards that are specific to segments of the copyright field, and we discussed the fact that there isn't one for all fields, nor should there be. And so a potentially good role for government would be to promote and cross-pollinate best practices across segments. That's all I wanted to say.

MR. MORRIS: Okay, that's great. No, that's very helpful. I mean, a lot of ideas have come out both

1 just in this discussion but also, I assume, even more
2 ideas from the small groups. And so one reason to have
3 note takers is to -- is so that we can gather and capture
4 some of those ideas.

5 So, I mean, you know, thank you enormously. I
6 mean, I haven't gotten to my kind of final remarks.
7 We're still in kind of the plenary, so you guys can feel
8 free to interrupt me and challenge what I'm going to say.

9 But, you know, let me step back and talk about
10 the government role a little bit more broadly. You know,
11 a major message that we took away from our April 2015
12 gathering on this topic was that, you know, the
13 government shouldn't come in and solve the core problems.
14 I mean, we've heard, I think, a lot of suggestions of
15 good things that we can do at the margins to promote
16 interoperability and dialogue, and we certainly will take
17 those to heart.

18 And let me just say -- and then, of course,
19 earlier today, I mean, it was very much echoed that we
20 shouldn't come in to solve kind of some of the core
21 problems.

22 And let me say from the Department of
23 Commerce's perspective, NTIA and PTO, we're happy to have
24 that answer. We're perfectly happy, you know. We would
25 strongly prefer that industry and the stakeholder

1 community at large -- not only industry, but the full
2 private sector stakeholder community, take the lead in
3 solving these problems.

4 And so our main question is what can we do to
5 help, and I think you guys have given us a lot of answers
6 that I think we will be able to look at and try to take
7 on.

8 But I also do want to kind of say something a
9 little bit more, you know, cautionary to say that the
10 government -- you know, our government, the governments
11 around the world, care about these problems. These are
12 problems that they matter to our equities and our
13 interests. We're very concerned about, you know,
14 promoting a strong economy and having a strong,
15 effective, efficient digital marketplace is one way to
16 get a strong economy.

17 And so I say that to say that, you know, in the
18 end the government won't wait forever for these problems
19 to get solved. And so, I mean, I really want to kind of
20 urge, you know, us together, you guys mainly, but to the
21 extent that we can help contribute, to really start
22 trying to address some of these specific problems that, I
23 mean, you know, we've just heard, you know, from the
24 questioning and from the panels here. You know, some
25 nagging problems.

1 And, again, we stand ready to help. We stand,
2 you know, ready to assist. But we really do need to
3 figure out solutions for these problems. And so I'm not
4 saying that next year we're going to do anything, or a
5 year and a half, but, you know, I mean, in five or ten
6 years if these problems are -- you know, if we don't
7 really have solutions to some of these problems, my guess
8 is that some future government policy makers will say,
9 okay, the government has to step in. And that's not
10 necessarily the best approach from our perspective. So
11 I'm just kind of trying to encourage us to really work
12 together.

13 We did hear, and I'm going to thank a number of
14 you, that from our perspective these meetings have been
15 very, very constructive. At least I hope that the
16 majority of you agree with that perspective.

17 And so I think that we do plan to continue this
18 dialogue and at minimum sometime late next year probably
19 try to come back. I mean, I'm not making any
20 commitments, it's a long time away, there's changes of
21 policy makers and all of that stuff. But in the end, in
22 the work that we are doing, I actually don't think it's
23 going to in any way significantly change with the change
24 of administrations. You know, the issues that we're
25 trying to grapple with are not really partisan issues,

1 and so, I mean, I really do expect that a year from now
2 we will -- that we will definitely want to come back.

3 But in the meantime, I think there are a number
4 of other specific issues that we're going to look at in a
5 more immediate time frame. So, I mean, that's really
6 just a -- just a very broad big picture response from the
7 government perspective. You know, I'm happy to open the
8 floor for another couple of minutes, but we've got to get
9 out of here pretty quickly and I need to say a couple
10 thank yous before I do.

11 But if anyone kind of generally has any -- one
12 or two other specific things that you haven't heard today
13 that the government should do, I'd be happy to hear about
14 it now -- ask for it now, if -- go for it.

15 BEN SHEFFNER: Ben Sheffner with the Motion
16 Picture Association of America. One conversation that
17 I've had sort of in the breaks with a number of people
18 from various points on the copyright spectrum, it kind of
19 refers to the elephant that's not in the room today,
20 which is the United States Copyright Office, which is a
21 government body which maintains a registry of copyrighted
22 works, at least in theory. And everyone in this room
23 knows that it's imperfect and it needs improving and it
24 needs better computers and better databases and all of
25 that. And there's movement on that front.

1 But, again, a lot of the conversation today and
2 the panels this morning which were very interesting, you
3 know, explaining a lot of the various private sector
4 initiatives, you know, EIDR, something that our industry
5 uses extensively and we think it's good and it's being
6 adopted more and more every day.

7 But, again, as the -- as the PTO and the NTIA
8 think about this issue more, I think it's necessary to
9 pay a lot more attention to the interaction between these
10 private sector initiatives and the existing government
11 database of copyrighted works.

12 For example, I'd be interested in hearing a lot
13 more about how these various initiatives interact with
14 the databases. I mean, the Copyright Office is talking -
15 - has talked at least in theory about creating APIs and
16 things so that information that's in those existing
17 databases can talk to the various private sector
18 databases.

19 Anyway, again, as you think about this more, if
20 there's going to be another event, I think it'd be very
21 helpful to talk more about sort of the interplay between
22 the government -- the existing government databases and
23 the private sector initiatives.

24 MR. MORRIS: Yeah. No, thanks, Ben. I think
25 that's a very good point. I mean, I think there is very

1 broad consensus that the copyright office in terms fo
2 technology funding and things like that, there's a lot
3 that, you know, needs to improve. And I think that will
4 be something that comes out pretty quickly.

5 And obviously there's been some changes of
6 leadership recently, and just earlier today Shira and I,
7 you know, said, you know, we need to go and start kind
8 of, you know, with the new folks and really make sure
9 that we and they are working in tandem and really
10 communicating. So, I mean, I think it's a very good
11 observation.

12 MALE AUDIENCE: (Inaudible).

13 MR. MORRIS: Yeah. I didn't want to -- yes,
14 exactly. That's a good point, even better off mic,
15 perhaps. But I'm -- so, go ahead.

16 MR. MCCONAGHY: Hi, there. Trent McConaghy,
17 Interplanetary Database and BigChain DB. I apologize if
18 this was brought up before. I had to step out briefly.
19 But takedowns. So basically obviously if there's some
20 content out there that someone else is hosting and it's
21 mine, I can send a takedown notice and then that person
22 will hopefully follow and take it down.

23 This directly conflicts with one of the key
24 characteristics of blockchain technology immutability.
25 If I issue a takedown and this media is stored on an

1 immutable blockchain database or immutable file system,
2 it's not coming down. So I think it's really useful to
3 have a conversation to try to reconcile the laws with the
4 technology.

5 MR. MORRIS: So I think it's a helpful point,
6 and I certainly have always assumed that a blockchain-
7 based technology would need to have a takedown process.
8 But it is a good point, so thank you.

9 So we are running out of time, and there is
10 another event in this room later. So I have been under
11 strict instructions that I have to get you out of this
12 room very shortly. But I do want to kind of wrap it up
13 and say some thank yous.

14 Shira, who obviously opened today, had another
15 commitment and couldn't be here until the very, very end,
16 but Shira and I really want to extend some thank yous.

17 You know, first and really foremost to -- well,
18 Susan Allen has spent a great deal of time up here. But
19 her colleagues in Shira's office and elsewhere in the
20 PTO, Steven Ruwe, Megan Askew, Nadine Herbert, Linda
21 Taylor, John Ward, Miriam DeChant, Bill Brantley, there
22 are a whole bunch of people at PTO, David -- a bunch of
23 people who really made a huge contribution.

24 And my staff, my NTIA colleagues, Louis
25 Zambrano and Susan Chalmers, and then also the folks who

1 run this tremendous facility, Melodi Ashrafi and her
2 team. And I'm sure I'm leaving some folks out, but could
3 all of us just give a huge around of applause to Susan
4 and everyone else.

5 (Applause.)

6 MR. MORRIS: And let me just close by saying
7 thank you to you guys and to -- I mean, to all of the
8 speakers and moderators and facilitators. You know, I've
9 done a bunch of these things in the copyright space and
10 in a lot of other spaces, and you never know the night
11 before, you know, how's it all going to turn out. And I
12 really think -- I mean, this was a great set of
13 conversations. I learned a huge amount. Obviously some
14 of you already know a lot of it.

15 But more importantly, I think, you know, I saw
16 so many times today when there were connections being
17 made where, you know, two people were sitting next to
18 each other, they had never talked and came from different
19 perspectives, and that's really I think some of the great
20 value of this kind of meeting. So, I mean, I really
21 appreciate all of you for being here, and certainly all
22 the speakers for participating.

23 So thanks very much. You can shmooze here for
24 about four or five minutes, but then they will start
25 taking chairs away. You can move out there and keep

1 chatting. So thank you.

2 (Applause.)

3 (Whereupon, the meeting was adjourned at 3:49

4 p.m.)

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Court Reporter