IN THE MATTER OF:  
UNITED STATES COPYRIGHT OFFICE  
NON-FUNGIBLE TOKENS STUDY  

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Remote Meeting
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Tuesday, January 31, 2023

The parties met remotely, pursuant to notice, at
10:02 a.m.

PARTICIPANTS:

SHIRA PERLMUTTER, Register of Copyrights and
   Director, U.S. Copyright Office
ANDREW FOGLIA, U.S. Copyright Office
JENÉE IYER, U.S. Copyright Office
BRANDY KARL, U.S. Copyright Office
DAVID WELKOWITZ, U.S. Copyright Office
ANN CHAITOVITZ, U.S. Patent and Trademark Office
NEIL GRAHAM, U.S. Patent and Trademark Office
ANDREW MOORE, U.S. Patent and Trademark Office

Panelists, Session 1:

JAMES GATTO, American Intellectual Property Law
   Association
KEVIN MADIGAN, Copyright Alliance
JAMES GRIMMELMANN, Cornell Law School
HILLARY BRILL, Decentralized Future Council
MARTA BELCHER, Filecoin Foundation
JOHN STROHM, Frost Brown Todd
ALFRED STEINER, Meister & Steiner
JOSEPH GRATZ, Morrison & Foerster
ABBY NORTH, North Music Group
MEGAN NOH, Pryor Cashman
DOV GREENBAUM, Reichman University (IDC) Herzliya;
   Yale University

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Panelists, Session 2:

GEORGE JOHNSON, Songwriter
YAYOI SHIONOIRI, City Lights Law
KAT WALSH, Creative Commons
VICKIE NAUMAN, CrossBorderWorks
STEVE KRAUSE, Dapper Labs
SHEKINAH APEDO, Deadfellaz
JEREMY GOLDMAN, Frankfurt Kurnit Klein & Selz
JORDAN BROMLEY, Manatt, Phelps & Phillips
ASHLEY JOYCE, National Music Publishers' Association
TONYA EVANS, Penn State Dickinson Law
JEFF SEDLIK, PLUS Coalition
UMAIR KAZI, The Authors Guild

Panelists, Session 3:

EMILIO CAZARES, Contributor to the SuperRare Ecosystem
RICHARD JAMES BURGESS, A2IM
ALTHEA ERICKSON, Center for Cultural Innovation
SARAH ODENKIRK, Cowan DeBaets Abrahams & Sheppard
EDWARD LEE, IIT Chicago-Kent College of Law; Nou NFT
JEAN-MARC DELTORN, Center for International Intellectual Property Studies, University of Strasbourg
KAYVAN GHAFFARI, MakersPlace
DAN SCHMERIN, Metaversal
JOSH HURVITZ, NVG
GINA MOON, OpenSea
CESAR FISHMAN, Pex
SUSAN CHERTKOF, Recording Industry Association of America

Panelists, Session 4:

AARTHI ANAND, Cahill Gordon & Reindel
STEPHEN KELLY, Cypress
DANIEL URIBE, GenoBank.io
JEFF GLUCK, Gluck Law Firm
JENNIFER PARISER, Motion Picture Association
MICHAEL LEWAN, Recording Academy
ZACHARY L. CATANZARO, St. Thomas University, College of Law
Open Microphone Public Participants:

RYAN WRIGHT
MIKE-CHARLES NAHOUNOU
ELIANA TORRES
ASH KERNEN
KOFI MENSAH
KEVIN MADIGAN
MR. FOGLIA: All right. Thank you for joining us today, everyone. We at the Copyright Office and the U.S. Patent and Trademark Office look forward to a robust discussion today on non-fungible tokens and copyrights. I am Andrew Foglia, Deputy Director of the Office of Policy and International Affairs at the U.S. Copyright Office. I am joined today by colleagues from both the U.S. Copyright Office and the U.S. Patent and Trademark Office who will serve as moderators for today's sessions.

At this time, it is my pleasure to introduce Shira Perlmutter, Register of Copyrights and Director of the U.S. Copyright Office, for opening remarks.

Over to you, Shira.

MS. PERLMUTTER: Well, good morning, everyone. On behalf of the Copyright Office, let me welcome you to this roundtable to explore the copyright issues arising from the use of non-fungible tokens. This study is in response to a request by Former Senator Patrick Leahy and Senator Tom Tillis, who asked both of our offices to address a series of questions related to NFTs' current and future uses and the intellectual property challenges that they
So this is the third and final roundtable as the Trademark and Patent events were both held last week. Our ability to better understand emerging technologies has always benefitted from strong public participation. This is likely to be all the more true of NFTs. Although the relevant technology has existed for nearly a decade, its wider adoption is more recent. The use of NFTs across a range of creative fields has raised many questions about how they intersect with copyright law.

The Copyright Office has long played a role in advising Congress on the effect of emerging technologies, and way back in the 1960s, you may not be aware of this, but the Copyright Office considered whether copyright could vest in expressive works created with a computer. And we concluded then that the answer was, yes, it could, but only if human authorship was present.

Now, of course, this issue has arisen again with current technological developments, and we're all seeing reports almost every day on the rapid evolution of artificial intelligence.

The office held public seminars in 2020 and 2021 on AI and machine learning. And in a letter that
Director Vidal at the PTO and I sent to the Senate together late last year, we noted that our offices are both very actively involved in AI issues. And the Copyright Office is now working on three separate fronts: First, we're examining issues of the copyrightability of works created using AI, and that includes looking at our registration practices as well as being involved in ongoing litigation; second, we're planning a series of events to gather more information on AI technologies and their uses; and third, we're going to issue a notice of inquiry asking for comment on copyright and AI issues later this year.

So we will be sharing more details about all of these in the coming months. But today, of course, we are turning our focus specifically to NFTs and copyright, and I look forward to a very enlightening discussion. So let me now turn the proceedings back over to Andrew.

MR. FOGLIA: Thank you, Register Perlmutter. As I said earlier, my name is Andrew Foglia. With me today to moderate this first panel is Ann Chaitovitz, Senior Copyright Attorney from the United States Patent and Trademark Office. This first session, NFT Technological Processes, will focus on copyright considerations and the technological
processes associated with NFTs.

A few Zoom housekeeping notes before we begin. First, we are recording the session today. The recording will be available on the Copyright Office's website on the NFT study page and on the U.S. PTO's NFT study page. The transcription function is activated on Zoom. If you are a panelist for another panel but are not on this session, please keep your camera turned off and your mic on mute. We ask that the panelists for this session turn their cameras on.

As a reminder, if anyone viewing this session would like to speak at the open mic session later, Session 4 this afternoon, the web form to request a speaking slot will be open until 1:30 p.m. Eastern Time. That form is on the Copyright Office's landing page for this policy study.

We will endeavor to have everyone who wishes to speak be able to participate, but if the volume is overwhelming, it's possible that we will run out of open mic time. Please remember also that the deadline for comments, written comments, for this study is February 3.

We informed the participants of the format of each session today. This session will start with a brief introduction and a short opening statement by
each participant if they desire. We request that these statements be limited to three minutes, and the moderators will be watching the time. After those introductions, we will have a moderated discussion. The moderator questions, which panelists have received in advance, are intended only as prompts for that discussion. We may not ask all the questions that we shared in advance, and we may ask follow-up questions that we did not share in advance.

We will begin in order as listed on the agenda, so, James Gatto, would you like to begin?

MR. GATTO: Yes. Thank you, Andrew. And thank you for doing this study. I think this is a really important thing for the offices to be doing.

My name is James Gatto, and I'm honored to have this opportunity to share some views on the important IP issues with NFTs, which are near and dear to my heart. I'm a partner in the D.C. office of Sheppard Mullin, where I formed and co-lead our firm's 60-plus person blockchain team. I've been involved with IP since 1984 when I started as a patent examiner. I joined my first law firm in '86, and for over 35 years now, I've been working with innovative technology companies to protect, monetize, and enforce their IP, handle IP and technology agreements and
technology-related regulatory issues.

I had the good fortune of becoming involved with blockchain technology in 2012 when a client became general counsel to the Bitcoin Foundation. The last 10 years, I've been immersed in the technology, and I'm fascinated by and passionate about the business opportunities and legal challenges that it brings. I believe that blockchain will be more impactful than the internet, and the use of NFTs and related technologies will result in tokenization of all types of physical and digital assets and other entitlements across many industries.

I currently co-lead the blockchain and NFT subcommittee of the American Intellectual Property Law Association on whose behalf I am here today. I'm also honored to have been recognized as a Cryptocurrency, Blockchain, and Fintech Trailblazer by the National Law Journal and as a thought leader on blockchain and cryptocurrencies by the National Law Review. Given the limited time available for preliminary remarks, I will just raise some high-level issues in which I think the joint study may wish to focus. Additional information on these issues will be in the written comments and hopefully in our panel discussion today.

Some of the many issues that I think should
be considered are as follows: First, there needs to be a revised definition of NFTs. NFTs do not necessarily authenticate an asset. Additionally, for at least some NFT projects, for example, the Merge, NFTs may effectively be substituted or subdivided. Thus, in defining NFTs, inaccurate or unnecessary limitations should be avoided.

The study should consider the lack of clarity with respect to the rights conveyed to the purchaser of an NFT. I recommend NFT issuers use an NFT owners agreement to clearly articulate the rights and limitations that each purchaser receives, and each purchaser should formally accept that agreement to form a legally binding contract, as with other online agreements.

The study should consider enhancements to the DMCA to cover the various ways digital assets are stored, including, for example, on decentralized storage systems, where digital assets are stored on different nodes under the control of different entities such that a single takedown notice may not be effective.

The study should consider NFT resale royalties, including the interplay between artist royalty rights and the first sale doctrine to ensure
creators who issue NFTs can participate in the resale of their NFTs.

The study should further consider whether NFTs are merely a form of title to some rights in a digital asset or are themselves a separate digital asset, which is an issue currently pending in the lawsuit between Nike and StockX.

Lastly, I think the study should consider whether airdropping NFTs or other tokens to a wallet can provide effective service of process or other legal notice, as was recently done in the LCX case.

Thank you, and I look forward to the panel discussion.

MR. FOGLIA: Thanks, Jim.

Kevin Madigan?

MR. MADIGAN: Sure. Thanks, Andrew. And thanks to the Copyright Office for hosting this roundtable. I'm Kevin Madigan. I'm with the Copyright Alliance. So our members, who represent, you know, copyright owners of all stripes, from individual artists to companies to large organizations in the creative industries, you know, they all believe that NFTs represent opportunities to, you know, distribute and commercialize copyrighted works in new and innovative ways while also reaching new audiences.
and increasing engagement among fans.

But I will say that in preparing our
comments for this study, I also heard about the
experiences of many creators who have encountered
problems with NFT-related infringement and fraudulent
activity, which I think has a lot to do with sort of
the lack of safeguards at the minting and listing
stages that can ensure that those uploading and
offering NFTs for sale in marketplaces are authorized
to do so.

So I look forward to talking about sort of
these challenges related to permission and
authorization, as well as the opportunities and how
NFT technology implicates copyright interests.

Thanks.

MR. FOGLIA: Thanks to you.

Next, we'll have opening remarks from James
Grimmelmann.

MR. GRIMMELMANN: Good morning and thank
you. I'm a professor at Cornell Law School and
Cornell Tech, and I'd like to make one point at a high
level of inspection, it may seem obvious, but I think
it's important not to lose sight of, and that's that
one promise of blockchain is it's a perfect paper
trail, but all paper trails can fail. Only sometimes
is this because of the technical failures in the recordkeeping system itself, which is what blockchain tries to solve. More often, it's because the information the parties attempt to record never corresponded to reality in the first place. I'm thinking of cases involving forgery, fraud, duress, or mistake, or cases in which a transactional formality fails. If a transactional form is used enough times, everything that can go wrong with it eventually will.

So the transfer of an NFT by entering a smart contract transaction on a blockchain is a kind of paper trail, and all paper trails can fail. Some intended NFT transfers will not go through, and some NFT owners will lose control of their NFTs without giving what we think of as legally valid consent.

So, if the state of copyright ownership or licensing is tied to ownership of an NFT, one of two propositions will have to be true. Either the legal system will need some mechanism to correct the blockchain when its records are in error, or some copyright owners will lose control of their works through preventable forgery, fraud, duress, or mistake. It's sometimes said that the advantage of a blockchain is that on-chain records are immutable and authoritative, but that's precisely why I am skeptical
of copyright in the blockchain space.

To quote Douglas Adams, "The major
difference between a thing that might go wrong and a
ing a thing that cannot possibly go wrong is that when a
ing a thing that cannot possibly go wrong goes wrong, it
usually turns out to be impossible to get at and
repair."

MR. FOGLIA: Thank you.

Next, we will have opening remarks from
Hillary Brill. You're still on mute, Hillary.
Hillary, you're still on mute.

MS. BRILL: Apologies. Hello. Thank you so
much for having me here today. My name is Hillary
Brill, and I am the technology advisor for the
Decentralized Future Council. I have also taught and
continue to teach copyright law at Georgetown Law
Center and technology policy as well. I've worked for
the IP and tech industry in a variety of different
capacities, working on Capitol Hill, working in-house,
working for a law firm, and I currently work with
public interests and industry clients on IP issues and
tech. So thank you for having me here today on the
exciting issue of NFT and IP.

I'm here specifically for the Decentralized
Future Council, which centers its advocacy on issues
related to blockchain use beyond cryptocurrency, issues like today that have been overlooked in public discourse on decentralized technologies.

The DFC aims to educate regulators and articulate the public interest potential for decentralized technologies to enhance commerce, communications, and democracy more equitably. The potential for NFTs is far greater than our conversation today, which will center on content owners, entertainment, and the gaming industry, and, accordingly, any study or regulation of NFTs should consider potential effects on the public interest.

There are NFTs being used today in responsible and good purposes and good uses, and we know them from raising funds for the Ukrainian effort, for charities and other needs, you name it. So NFTs are positive outside of this world and have a good effect on public interests, but additionally, supporting artists in a way that the NFTs have been enabling for artists to use a new economy, a new platform, it also helps the public interest with having new creative works and new opportunities to use them.

At the same time, there is confusion on IP rights that are granted by NFTs, so education,
education, education is essential here. And I am hoping that the Copyright Office after its study will explain some of the basic rights that confer with an NFT sale that I hope we talk about today and I know will be in the comments as well, similar to basic guidelines that you have throughout your copyright website. And I also want to focus that today's discussion is nothing new and we heard that in our opening remarks that these issues have been going around the new technologies and how do our existing legal frameworks work with them.

Whatever IP rights existed before NFTs still remain in effect. Copyright law still applies to all of these works at issue. It's not clear at all if there's a need for new laws, just education first, proper enforcement, and then consider what we need. So, again, thank you so much for having me here. The DFC recommends regulators support NFTs in a manner that promotes innovation and responsible use in all areas of use. So thank you. I look forward to being here, listening to everyone.

MR. FOGLIA: Thank you.

Next, we will hear from Marta Belcher.

MS. BELCHER: Hi there. I'm Marta Belcher. I'm the president of the Filecoin Foundation and also
the general counsel of Protocol Labs. I'm also a former copyright litigator. The open source technology that I work on is a decentralized storage network where more than 114 million NFTs are currently stored when you actually go down to the storage layer.

Decentralized storage is critical infrastructure for NFTs. To oversimplify a bit, when you buy an NFT, what you're buying is that a ledger says that you're the owner of a file and that file is located at such-and-such URL. So, if you go to that URL and there's nothing there, then you've spent a lot of money on, you know, a 404 page.

With traditional centralized storage, that's actually something that happens all the time by accident. So let's say you buy an NFT on a platform and it's using Amazon Web Services, which is a centralized storage network, and that platform then goes out of business and stops paying its AWS bill. That is actually something that happens all the time, including very publicly recently when a major exchange went bankrupt and suddenly all the NFTs on that platform disappeared. That's because, in centralized storage systems, you're looking for a particular file in a particular place in the world and hoping it's still there, and often it's not.
With decentralized storage systems, every piece of content has a particular content ID, and that piece of content can be stored in multiple places, and when you look for a particular content ID, you can pull that content from multiple places, not just one server. So you don't have all your eggs in one basket.

But, at the same time, these decentralized systems can actually make it also easier to block infringing content because, when you block a content ID from being retrieved, it blocks that content from being retrieved from anywhere, so you don't need to go to multiple places where it's stored, which is the case with centralized systems. So thank you so much for having me, and I look forward to answering your questions.

MR. FOGLIA: Thanks, Marta.

Next, we will hear from John Strohm.

MR. STROHM: Hello, I'm John Strohm. I'm a partner at Frost Brown Todd in the national office. And, first, just for the record, I want to say that the opinions I express here are my own, not those of my firm, my colleagues, or our clients. My own background, I was a professional musician into my 30s. I was in a band called The Lemonheads, toured the...
world and made records, until I became a lawyer to
direct the rights and challenges of creators, of
people who are creating content and building careers
in that content or creating art, rather. And, also, I
was a record executive for a number of years at
Concord. I ran Rounder Records.

And I recently returned to law practice, and
I was attracted to this space, I guess what we're
calling Web3, because I saw these NFTs and blockchain
technology as an opportunity for creators to be able
to exercise greater control and have more autonomy
with their work and not be relying necessarily on
platforms that sort of prescribe the business models
that creators would be subject to.

And it's my opinion that the values of the
space, whether it's decentralization or transparency
or interoperability or even permissionlessness, are
not incompatible with our copyright laws and that, you
know, there is a way for creators to be able to enjoy
the autonomy and the opportunities to engage with
fans, to control the dissemination and derivative
works of their works and to build careers while still
enforcing copyright law.

And I think this is a really good time to be
having this discussion because we're sort of coming
out of a very chaotic period with a lot of fraud and opportunistic platforms that disrespect the laws of creators. And I've learned from representing technology clients that there's a lot of, a big education gap in terms of people's understanding of copyright law and copyright licensing. And I'm encouraged, including some examples in the marketplace of ideas, that there's a way to have a licensing framework that's accessible that follows the digital asset and can create a lot more certainty and ensure artists the ability and creators the ability to have control over their work and not end up with another centralized platform like we have in the past. Thank you.

MR. FOGLIA: Thanks.

Next, we will hear from Alfred Steiner.

MR. STEINER: Hi, everyone. I'd like to thank the Copyright Office for inviting me to speak today. I'm an artist and a lawyer operating both in the real space in terms of an artist and in the NFT space. And in the last couple years, following the Beeple's sale at Christie's, I've been pulled into this space both by clients because I've been a technology transactions lawyer and an intellectual copyright and trademark lawyer for over 20 years and
also by my artist friends who have asked me what's going on with this and how can you help me.

So I work for a firm, a two-person firm with my partner, Gabriel Meister, called Meister and Steiner, and I'm particularly interested today in talking about the creation of copyright or whether a copyright is created in some of the processes that we've seen develop or become popular in the last couple of years, including the auto-assembly of works based on a template and a number of preexisting works, often called traits or attributes, and also the creation of works or what may be expressive works from code, which, of course, is itself, no doubt, expressive, but when there's a randomized element involved that is capable of creating a lot of particular works, to what extent are those particular works or should those particular works be covered by copyright.

And I'm also interested in questions regarding transfer of copyright based on NFT transactions. For example, should the signing of a smart wallet signature constitute a written signature for purposes of the Copyright Act?

I also think it's important to note, and other people have alluded to this or maybe even
addressed it exactly, but blockchain talks in terms of ownership. You know, for NFTs, there's an owner of function in smart contracts, an ERC-721 contract that you can query to see who is the "owner." And, again, I use that in quotes because it's really not about ownership at all. It's really about possession because the law can and will certainly disagree with what the blockchain says about who owns a particular asset because, as we know, people get hacked all the time, and to say otherwise would suggest that hackers, you know, take ownership or a good legal title to NFTs they've hacked.

So I look forward to discussing all these things with you. Thanks again.

MR. FOGLIA: Thank you.

I will now invite Joseph Gratz to give opening remarks.

MR. GRATZ: Good morning. My name is Joe Gratz. I'm a technology and copyright litigator at Morrison & Foerster in San Francisco. I'm here today on my own behalf, and thank you so much for inviting me to participate.

The point I want to make is that the Copyright Act and its amendments were written to be technology neutral and to accommodate new
technologies, and the point that I want to make is
it's working pretty well at least from the point of
view of what is happening physically with NFTs. The
traditional copyright principles and existing
statutory provisions deal pretty well with many of the
issues that arise, and that becomes clear when we look
at what is physically happening when an NFT is minted
or transferred or viewed or whatever, and that's where
we always start with thinking about copyright from a
litigation point of view.

There are, I think, three parts to think
about from the point of view of thinking about what's
happening and what might be happening that implicates
106 rights in each of those places.

First is the ERC-721 smart contract itself
that constitutes the NFT, and that doesn't ordinarily
contain anything or can't tell you anything other than
who owns it and the location of a place where metadata
can be found. And those things themselves are not
ordinarily going to be or contain copyrightable
authorship in and of themselves, just as references.

Then there's the metadata to which that
refers, and that can be stored in a particular place,
either centralized or decentralized storage, but that
itself just consists of a title, which, as we know, is
not itself copyrightable, and another location pointing usually here to an image, which is stored yet somewhere else.

And then we get to the image. The image is stored somewhere. It's an image that can be retrieved from a location on the internet. And we know how to deal with that. We've been dealing with that for many years. I mean, if it's an infringing image, the person who uploaded it is engaged in direct copyright infringement, right?

The service providers involved in hosting that image, whether they be centralized or decentralized, have the ordinary 512 safe harbors, and those ordinary 512 safe harbors sort of function normally in this environment because what is happening is there is an image at a location on the internet that's been stored by somebody and it may be infringing or it may be not infringing. The 512(c) safe harbor operates with respect to infringement by reason of the storage and the direction of the user of infringing material, and the 512(b) caching safe harbor works with respect to service providers who make that content more available, for example, in the context of decentralized storage networks.

And so, overall, in short, the point that I
want to make is NFTs involve storing expressive works on servers accessible over the internet, and there is nothing that weird about it from a copyright infringement litigation point of view, and copyright already has the tools and statutory limitations and exceptions to understand and address it.

MR. FOGLIA: Thanks, Joe.

I will turn now to Abby North.

MS. NORTH: Good morning. Thanks so much for including me in this. I think I might be the one, if not the only, one of the only non-lawyers among this group. I started as a musician, as a composer, made my way over to rights management on both the composition and sound recording side, have been very involved in advocacy groups, including IFR, which is the Alliance for Artists and Rights Holders. I'm on the board of the Association of Independent Music Publishers, and, also, I am on the advisory board of SONA, the Songwriters of North America, and with them have participated in a variety of advocacy issues.

This one is important because one of my other focuses has been on metadata specifically. I have created technology for music works registration and common works registration. I've built royalty processing tools. You know, I live and breathe...
identifiers and metadata.

Some of the comments that have already been made kind of echo what I would be saying. One of them was Marta talked about associating the assets at all servers and every server having a content ID. We need to be able to have that content ID. We need to be able to keep that identifier, those identifiers, not just with the server but with the asset itself, with the sound recording, because the only way for us to identify a composition is really with that sound recording that embeds the composition. So the more identifiers we actually keep with the file itself, the audio file itself, in addition to at the server level, that's really important.

The DMC issues that have come up are really important. When we deal with rights management takedowns at, let's say, a YouTube, the kind of whack-a-mole concept is just insidious. And so I think it was James who said that, you know, when it's taken down at one decentralized server, that takedown has to be effective at all of the servers. We as rights managers, we can't be chasing every single server.

Another issue, I guess my primary issues are also so the identifier remaining with the file, the education part of this because what we see quite a bit
is people -- not just the platforms, the platforms
don't always understand their requirements to adhere
to copyright law, but also, when somebody purchases an
NFT and they don't understand -- they don't even
understand the difference between a composition and a
sound recording, let alone what rights they have
acquired with this NFT.

I think the Copyright Office needs to have a
very, very participatory role in education, as I said,
both at the platform level and with the buyers. And
then I think, with regard to smart contracts, one of
the fears is that bad actors can enter this ecosystem
right from the very beginning and that infringement
can take place right at the point of creation of the
smart contract. So we need some kind of regulation
and policing mechanisms to prevent that from happening
right at inception. Thank you.

MR. FOGLIA: Thank you.

We will now hear an opening statement from
Megan Noh.

MS. NOH: Good morning, and thank you so
much to the Copyright Office, to Andrew and to Jenee
for organizing this event, and for the opportunity to
participate today. It's an honor to be in
conversation with the other esteemed participants of
this session.

My name is Megan Noh, and I'm an art lawyer with nearly two decades of experience both in business and legal roles in the art industry, including as in-house counsel for an international auction house, outside IP and moral rights counsel to a major museum, transactional counsel to numerous Art News Top 200 Collectors, and counsel on IP and contract matters for some of the world's leading digital artists, as well as a number of prominent traditional media artists.

I currently co-chair the art law group at Pryor Cashman in New York City, although the views I share here today are my own and do not necessarily represent those of the firm. And I also teach art law at Columbia Law School. As a result of my work representing the interests of this cross-section of industry stakeholders, as well as my experience on copyright and artist rights issues in particular, I've been actively engaged with legal aspects of NFT projects and the NFT marketplace since 2020, so going on four years now, which they say in Web3 time is a couple of decades.

In particular, my work has focused on the power of the blockchain to address market equity issues faced by artists, including through technology...
aimed at capturing resale royalties, as well as friction points arising in the context of the so-called traditional art world's adoption of this technology, and the impact of current marketplace practice and transactional models, including the use of varied and inconsistent licensing schemes on the intellectual property rights of creators on the one hand and purchasers on the other.

I very much look forward to the discussion here today unpacking the Copyright Office's thoughtful and important questions, in particular, around the application of Section 109(c)'s first sale doctrine as it may pertain to the default statutory rights or lack thereof that are enjoyed by owners and custodians of digital art works associated with NFTs and thinking about whether that current statutory language could or should be amended to better track the reality of this technology and media landscape today. Thank you so much.

MR. FOGLIA: Thank you.

And now we will hear from Dov Greenbaum.

MR. GREENBAUM: Hi, I want to thank everyone at the Copyright Office for putting this great event together. This is clearly a timely event. There is an increase in ongoing NFT IP litigation with big
names like Hermes and Nike, Yuga Labs and others, and, hopefully, what we'll discuss here today can actually be relevant perhaps to some of those cases.

While I'm an attorney licensed in California and the USPTO, I'm currently a law professor at Reichman University in Israel, focusing on the intersection between law and technology. The academic instances I direct that look specifically at the ethical, legal, and social considerations of law and technology and emerging technologies have been involved in blockchain and Web3.0 now for many, many years.

Some NFT-related issues that I'm personally interested in, and I want to apologize in advance if I'm speaking too quickly, relate to how NFTs exhaust the copyright rights of underlying works, whether or not a smart contract embedded within an NFT can effectuate ownership transfer and exclusive licensing for that underlying work, whether an NFT infringes on the right of publicity of an artist whose work is associated with an NFT. As copyright allows for rights attaching to illegal activities, does a hacking of a crypto wallet transfer the rights associated with that NFT? Probably that happened with Bored Apes and Seth Green.
I'm also interested in what rights pass through the transfer of NFTs downstream to follow-on purchasers, what rights remain with those people that have sold their NFTs downstream. Can tokenization of copyright work in light of independent rights assigned to co-owners, can you ever really tokenize copyright works? Is there a marketplace for that? What copyright rights, if any, prevent people from minting unauthorized NFTs? And perhaps finally, is the creation of an unauthorized NFT fair use or de minimis use and therefore defensible under copyright law?

So those are just some of the issues that I think are very relevant to the intersection of NFTs and copyright law. So thank you.

MR. FOGLIA: Thank you.

We will shift now to moderated discussion. Ann and I will ask questions. We'll invite you to use the Raise Hand function, and I will call on you in my best estimate of when I see the hand go up.

So let's start with something at least reasonably close to the beginning, focusing on the creation or minting of an NFT associated with a copyrighted work, what steps in that process might implicate a copyright owner's exclusive rights?

Thanks.
James, I think I see you first.

MR. GATTO: Yes. So I think, first, it's important to note that there's many different ERC standards. So, even on the Ethereum network, you have ERC 721, ERC 1155 and 998 and likely others. And you have different blockchains that are NFT-focused, like Flow, WAX, Solana, and others. And so I think the first thing I would say is that it's important to be careful about generalizing because everything is fact-specific, but with that said, there's also different ways in which the assets associated with the minting of a token that represents the asset can occur. In some cases, if you're using generative art, for example, the process may kind of be one overall process. And so, if you're creating works as part of the minting process, then I think traditional copyright law applies.

And we've touched on this, if it's AI-generated, the works may or may not be copyrightable depending on the level of human authorship, et cetera. So I think a big part of this is that in most cases, if we look at ERC 721 to simplify it, in many cases, when you mint a token, the asset may already be stored somewhere else, and when you mint the token as part of that process, you input various metadata, including
identification of the asset, where it's stored, and that can be a URL, a URI, or, as Marta said, it could be a CID. And so, again, depending on where the storage is, that part of the process may vary. You can put in resale royalty and other metadata.

And what you're creating in the minting process typically is the token, right, unless you're also minting or creating the art at the same time. And so, in many cases, all you're doing with the minting is generating a token ID that gets associated with a wallet ID that represents whatever the ownership is or whatever the rights are. And so, if the asset is already somewhere else, then the minting process really doesn't change that very much. If the asset is part of that, then I think the traditional copyright laws should apply.

MR. FOGLIA: Thanks.

Dov?

MR. GREENBAUM: Sure. Well, I think there's a long line of cases from the Ninth Circuit that essentially says that simply linking, so if you're using a standard just linking the work in the underlying code, regardless of how you link it, that's clearly not a copyright violation. Of course, deep linking may be different, so depending on where the
particular copyright work sits, deep linking may be a copyright violation. It may be a right of communication, I think. Whether or not that right really exists, I think I've seen some commentators suggest that there may be a right of communication associated with deep links.

If you're actually creating a hash of the underlying image or the underlying work, that could be considered a derivative right under copyright law. Again, I don't know if that's clear or not. That remains to be seen. Otherwise, you know, just the minting process itself doesn't seem to -- particularly if you're just linking to a publicly available work that sits somewhere else, I don't see why just the minting process itself would be a copyright violation.

MR. FOGLIA: Thanks.

Kevin?

MR. MADIGAN: Yeah, thanks. So I guess we all would agree that NFTs typically don't, you know, house the associated work or digital file but, you know, instead point to a location or a link usually not on the blockchain but on a server somewhere else, but, you know, just because the NFT doesn't house the work doesn't mean there aren't occasions for the right of the copyright owner of the associated work, you
know.

So, for example, if the minter is the same person who uploads an infringing copy of a work online in a different location, even if the NFT itself doesn't house that work but points to or links to it, that person could still be liable for direct infringement, but even if the infringing work already exists online somewhere and then a different person comes along and mints an NFT that links to it, you know, there's still questions of contributory liability if they knowingly link to that infringing copy. So I would just say determining what rights are implicated, it really depends on what the minted NFT consists of or links to, and simply because a copyrighted work isn't part of a resulting NFT doesn't mean there aren't rights implications.

MR. FOGLIA: All right. Thank you.

Hillary?

MS. BRILL: Thank you. And I'm going to add because a lot of people said different aspects of what is a copyright violation from actually minting an NFT, I want to actually look at what people think that they're necessarily minting or what people think they're getting for the NFT during the minting process. And I think someone mentioned it earlier,
right when you actually mint the NFT is when you put in the specific smart contract that decides what rights the actual creator of the work is giving to the person that is actually using the NFT or purchasing the NFT. So, even though the NFT is separate generally from the access to the work, that NFT is code that says what exclusive rights are being given, if any, to the actual work.

There may be no rights given, but there actually may be rights given, and there is a conversation and discussion of making sure that users know what rights are being given and also that the creators know what they're doing. And there's different ways of doing that. I know you have another panel, I think it's the next one, the Creative Commons, for example, is being looked to and used as an open rights opportunity for someone to put into their smart contracts.

There are content owners that want to just allow access to it. There are content owners that want the actual content to be used in every possible way. The most possibly infamous or just well-known, Bored Yacht Ape Club, they actually allow you to use their Bored Ape in all sorts of things, and now there's a fast-food restaurant that opened up with the
Bored Ape. So I think it's important to explain also
that in the minting process, that's where you can
grant exclusive rights, not just where a potential
violation can and cannot be or cannot occur, which I
think is important to this study and necessary.

MR. FOGLIA: Thank you.

Megan?

MS. NOH: Having addressed a lot of what I
wanted to address, which is this concept that even
where the creation of a token simply includes a URI
referencing an asset that exists elsewhere,
oftentimes, and this has become more prevalent as more
artist-friendly NFT marketplaces have developed a sort
of self-minting protocol that make it easy for an
artist to create an NFT through just a couple of
clicks, it's common for that person to be uploading
the asset to a server at that time and then, once the
token is created, we have to, of course, think about
how it's being displayed in a platform.

And, typically, that involves calling
through a function, you know, an echo display of a
thumbnail version or, you know, a reduced resolution
version of the asset, so the asset, if it's, you know,
an infringement for the person who's minting the token
to be tying a token to this asset in the first place,
even where the token itself only contains a link, by virtue of this creation and marketing process, there are going to be a number of other uses that are potentially implicated.

So, to the point that Hillary was just making, I want to point out that although it is, of course, possible to include different kinds of permissions within the metadata of a token, right now, there is no uniform way for marketplaces to read that as metadata, and so there are some very serious questions that arise about what purchasers understand in terms of the rights that they receive. And, again, that's just a lack of consistency or uniformity in the marketplace. We have some project websites for different NFT projects that establish the terms and conditions in the, you know, the licensing scheme for the project in the website terms and conditions, but then, when that token is trading in a marketplace, it's completely divorced from that language.

So I think that that's a question that we'll address later in the panel, but just because Hillary brought that up, I wanted to echo that my basic answer on the question of what does minting implicate in terms of someone else's rights is that, I guess, consistent with our first respondent on that question,
it really depends on the nature of the platform and
the minting process at issue.

MR. FOGLIA: Thanks.
Alfred.

MR. STEINER: Thank you. I'm echoing some
comments that have already been made. I agree. I
think that there's a bit of a consensus here. Well, I
don't know. If an NFT is minted and all that happens
is a pointer is generated to an asset that's already
stored somewhere, I don't think copyright is
implicated at all, and that's my take.

If the work is actually generated in
connection with the minting, then I think copyright
law applies, as James Gatto said, although I don't
think it's necessarily all that clear when code is
generating screen displays based on randomized input,
for example, you know, whether the resulting output
has copyright or, if so, to what extent. And the same
would apply if a work was auto-assembled upon minting
in the same manner.

The other thing I think is worth asking is
when a rights holder upon minting says in writing that
they're transferring the artwork related to the NFT to
the NFT owner. In this context, there is no physical
object, so is a transfer of the artwork a transfer of
the copyright in the artwork? There's no physical,
you know, copy distinction here. There's just one
thing. So I think that's an interesting question.

It's also worth pointing out, I don't know
if anyone's mentioned this, but metadata is almost
never stored on chain, almost never. It can certainly
be done. It's not difficult at all. And, in fact,
it's possible to include the rights grants, whether
it's a license or a transfer, in each NFT on chain,
and, you know, I'm happy to point people to examples
of that if anyone is interested. So, yeah, those are
my comments. Thank you very much.

MR. FOGLIA: And we'll go back to James and
then Dov.

MR. GATTO: So I wanted to just touch on, I
think, a really important issue that Hillary raised
and Megan commented on, and that is the transfer of
rights or the articulation of the rights that are
granted with an NFT, and I agree a hundred percent
it's important that it be clear. I also agree that in
many cases, it's not clear and it's a significant
problem. I maybe slightly disagree with Hillary in
that smart contracts, as pretty much all of us knows,
that they're not typically a contract. They're not
necessarily in agreement. They're typically code.
There are some exceptions where they could be, but, for the most part, they're not.

So I think from the standpoint of just thinking about online contracting in general, while it is maybe advantageous to include an articulation of the rights in the smart contract or the metadata, I don't think that that is legally sufficient to form a binding contract if there's not affirmative acceptance.

Now not to say you couldn't maybe build that in, but what we typically use is a separate NFT owner agreement that's presented to the purchaser and the purchaser affirmatively accepts it at the time of purchase, just like with other online contracts. And if you have that binding agreement, I think it's more likely that a court will find that to be enforceable. Most purchasers are not going to look at the metadata, so they may not have noticed. If that's the mechanism you're using to articulate the rights, you know, a lot of purchasers can say, I never saw it, never agreed to it, and you have this uncertainty with respect to the unenforceability of those terms.

I think the other issue that's related to that that goes beyond the minting, and that is the resale of an NFT. So, even if you as the issuer
require the initial purchaser, you present an NFT owner agreement and they affirmatively accept it, the resale of where that NFT is resold is not so much in your control for the most part, and so how do you have a binding agreement on a subsequent purchaser?

There's companies that are working on technology to build technology into the NFT ecosystem to facilitate that, companies like MINTangible and Monax Labs that are trying to automate the process of ensuring the NFT owner agreement is presented on each sale and resale, and I think that would be something that would be beneficial to look at in connection with this study. Are there technologies that can help facilitate what we all agree is a problem of how do you articulate and ensure a binding agreement with respect to the rights associated with an NFT?

MR. FOGLIA: Thanks.

Dov, do you want to go ahead?

MR. GREENBAUM: Sure. Just to follow up on what James said with regard to smart contracts, I think it should be noted that there are some rights, specifically exclusive rights, under copyright law that have to be passed only through written signed documents. Whether or not a smart contract can effectuate that remains to be seen.
With regard to what Hillary said regarding Yuga Labs and their Bored Apes, if you read actually the terms and conditions that Yuga Lab puts out, it looks totally lacking in legalese, doesn't mention copyright even once, and it's really unclear from these sorts of things, from these terms and conditions what exactly they are offering. So particularly in the case of Yuga Labs, they offer you the world, and whether or not they're actually offering you the world remains to be seen.

With regard to what Megan said with regard to whether or not a thumbnail might be an infringement if it goes up on, let's say, a site like Open Sea, if a thumbnail goes up of the unauthorized minted image, I think, and, again, I think it remains to be seen, but there is, you know, the Perfect 10 line of case law that seems to suggest that there may be fair use rights that may be transformative in creating a thumbnail depending on multiple conditions.

And then I think just in general, the minting process, if you look at Yuga Labs and their ongoing litigation with this Ripps guy, whether or not, you know, Bored Apes really is a neo-Nazi, alt-right sort of conspiracy, which is what Ripps claims, they actually recently claimed that they are not in
any way suing him on copyright grounds, and I think, to some degree I think, commentators have suggested that because the Bored Apes group doesn't think that they actually have any copyrights or any legitimate copyrights to their actual Bored Apes for their minted NFT, for whatever reason, whether or not it's because of AI or something else, but it was interesting to see that they totally, they sort of really pushed themselves away from any sort of copyright litigation with regard to the Ripps guy. So I just wanted to leave it at that, so thank you.

MR. FOGLIA: Thank you.

Joe?

MR. GRATZ: One thing that we keep sort of circling back around to is this problem that downstream purchasers of an NFT may or may not be in privity with the creator, right? They may or may not be the original purchaser, and there may or may not be any opportunity for them to directly deal or contract with the person who originally minted the NFT. There are some, as James mentioned, attempts to try and make that happen or at least make it more likely, but what I just want to touch on is that copyright has a couple of doctrines that deal with this in the existing world that may have a role to play.
The first and most important of those is implied license, that is, that we can take from conduct what the rights are as long as those rights aren't, as Dov says, rights that can only be transferred by assigned writing, and that can be just about any scope of non-exclusive license to just about any work or set of works. And, obviously, what will be the right answer in any particular situation, what is, in fact, implied by conduct may change, what is, in fact, implied by what people are doing with respect to a smart contract can change. But that, I think, has an important role to play in sort of forming the default rule where there is not privity and where there is not a contract.

The other is, of course, 109 -- whose first sale, whose application here is, I think, pretty uncertain, but I think in light of how the smart contracts work and in light of the application of implied licenses in that context may just not matter because the smart contract says the original seller's intent is written down that you can pass this on and what happens if there's an electronic droit de suite or whatever. So I think implied license is the place where we can get some of these answers.

MR. FOGLIA: Thanks.
Professor Grimmelmann?

MR. GRIMMELMANN: Yeah. I think I'd like to pick up exactly where Joe left off, which is with the difficulty of connecting legal consequences to transactions that take place on a blockchain. So the terms of service have been mentioned. There's absolutely no guarantee that any person downstream has been to the website, has agreed to the standard we would treat as required for agreement. There's no way to ensure that that happens. If you want legal consequences to follow, it's going to have to happen on chain.

And this is actually quite difficult because it's also difficult to ensure that anybody who interacts with a smart contract has thereby intended to have legal consequences in the way that we would need to have legal consequences flow from signing a contract. It might just be that if something is airdropped into my wallet; it has arrived at me and I have taken no act that could constitute assent to any terms imposed on me.

This problem also comes up for transferors downstream. If I receive an NFT and I transfer it on to someone else, it is not at all clear that there's anything we can do in legal terms that will require me
thereby to grant a license or transfer any copyright rights to the person who receives it from me.

Now it is possible to create technical mechanisms that indicate that a person has intended by taking some action on a smart contract to agree to legal consequences, but we cannot guarantee that when those actions are taken, the person who caused them to be taken actually intended them. It could've been an account hack or somebody who didn't have a legal right to do so acting without authority.

So this is an example of the misalignment between technical records and legal consequences I mentioned earlier. It's pretty much the only copyright form that I can see that might successfully piggyback on a blockchain transfer of NFTs or other assets would be a unilateral license granted by a copyright owner to whoever has possession of the NFT at some future time. Within that structure, it works for granting licenses, but it's not clear that you can do anything to require reciprocal obligations from the possessor.

MR. FOGLIA: Thanks.

Kevin?

MR. MADIGAN: Yeah. I just wanted to return quickly to something Dov raised about sort of
thumbnail images and display in the Perfect Ten case. You know, I understand that some want to compare NFT displays to thumbnail images, like those that were found not to be infringing in cases like Perfect 10, but I would just point out that Perfect 10 found the thumbnail images were a sort of highly beneficial public function because they improved access to information on the internet. And I'm not really sure the same could be said of a purely commercial NFT marketplace where sort of the public benefit is not as clear.

So I'm not sure that if, you know, the four-factor analysis would result in the same finding of fair use as the thumbnails in Perfect 10. You know, if there's sort of a wholesale unauthorized display of a copyrighted work, that's really just meant to facilitate a sale on an online marketplace. So I just don't think that's sort of the same as Perfect 10.

Thanks.

MR. FOGLIA: Thanks.

Abby and then Megan, and then we're going to add in a new question. So go ahead, Abby.

MS. NORTH: I just wanted to raise something. We keep talking about a copyright owner, but I think we're ignoring the fact that, like,
particularly like if it's a composition, there could
be 15 copyright owners. There could be more than
that. So there's a deep requirement for technical
measures to have an underlying rights agreement that
never leaves the smart contract.

There's always going to be -- like, if we
have 15 publishers, we're going to see transfer of
rights among these 15 publishers to other publishers,
to other parties, and we need to be able to keep track
of who owns what and what rights they have conveyed.

MR. FOGLIA: Thanks.

Megan?

MS. NOH: I love that we're thinking about
all of these questions around enforceability of the
licensing terms and assent and what happens
downstream, and I think that's super important, and I
think this panel is going to get to that in some of
the other questions.

But I just want to come back to the actual
first question that was posed around minting and what
rights that implicates, and in coming back to that, I
want to think about something that James said actually
in his introductory remarks, which is that there's no
independent oversight or diligence being exercised by
anybody at the stage of minting. The platforms are
not looking at the JPEG that somebody might be uploading or referencing with their token and independently determining whether there's an infringement there. They're not looking at whether the name of the person who's minting the token matches the name of, you know, who might this asset be attributed to elsewhere on the internet.

Most of the platforms do have some kind of general representations and warranties that they require from minters as part of their terms and conditions that a minter would be accepting by using the platform. But I'm not sure that, you know, a lot of people who are minting tokens are really going through all of that fine print and aware of what representations and warranties they're making.

And there's a huge variance even in those minter-side platform terms and conditions as well, to the point where I've seen one platform say not just you represent and warrant that any asset you may be tokenizing is yours and you have exclusive rights in it, but I've seen that platform contemplate or maybe, minter, you're representing that it's a fair use, right, which is like a judicial determination. I'm not sure how we could be accepting that as a representation and warrantee from a minter.
So I just want to think about, you know, on the minting side, because there's multiple stages of a token's lifetime in the marketplace, there are real issues even there. Whether the solutions are technology-oriented, the use of AI to try to determine whether an image that's being tokenized has been used before or whether there are legal solutions, I'm not sure. But, when we're talking about the rights that are implicated by minting, I think what we're talking about is whether the minter is infringing someone else's rights by using their asset, and I want to point out that the marketplaces are not perhaps adequately addressing that.

MR. FOGLIA: Thanks.

I'm going to throw it over now to Ann for another question. If you want to elaborate on your comments from the previous question or anything anyone else said or a comment, just hold that thought and you can weave it into your response to Ann's question. Thanks.

Ann?

MS. CHAITOVITZ: Yeah. Thank you. This conversation is really interesting, and we have some additional questions about NFT storage and things, but you've already been addressing a lot of them, but I
know some of you may be waiting because you know you
got the prepared questions. So I just wanted to throw
them all out there now so that we can have the
comprehensive conversation.

So we had four questions about NFT storage.
I'm going to ask them altogether so you can just
answer them in the context of this discussion. All of
them, I believe, many of you have already addressed,
but I'm going to ask in case others of you have things
to say too.

First is how are copyrighted works that are
associated with NFTs stored or maintained and does it
make a difference from a copyright perspective
whether, when an NFT is minted, the work is stored on
the chain, on the actual blockchain, or off chain and
sold separately, stored separately on an existing
external hosting service and only identified by
metadata in the pointer on the blockchain?

How is that similar to or different from
other works in the online landscape and what does that
mean from a copyright law perspective? And the final
question is, what copyright rights and exceptions or
limitations, such as first sale or fair use, which a
couple of you have already mentioned, are implicated?

So I'm now going to throw it back to you

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guys. Raise your hands and just kind of work those questions into the chain if some of you were waiting for that. Thank you.

Okay. Well, Marta, you were the first hand I saw.

MS. BELCHER: Okay, great. Fantastic. So, in terms of storage, I would sort of think of it as three different ways that you can actually store NFTs. So the first way you mentioned is storing on chain. That's something that doesn't happen all that often. So the vast majority of cases when you buy an NFT, basically, there's a ledger that says you're the owner of a file and that file is at such-and-such URL. It's possible that instead the entire image can be stored on that ledger, but even just having a simple JPEG stored on a blockchain ledger is just a lot of data for a blockchain, so it ends up being typically prohibitively expensive and that's because, when you put something on a blockchain, it's not just like saving it in a database.

All that data on the blockchain actually has to be computationally verified, and so that's very computationally intensive and actually, you know, has a lot of, you know, electricity and other costs associated with it. So putting an actual JPEG onto a
blockchain, while it can be done, it typically ends up being prohibitively expensive in order to add it to the blockchain and verify it. So that actually is something that is relatively rare.

So, instead, what happens is you just buy an NFT, and what that means is the ledger is pointing, is saying that you are an owner of the file, and then it says that that file is over here, and it either has a URL or it has a content ID or hash of the content. So, if it has the URL, that would be the sort of second way of storing it, which would be using sort of traditional centralized storage. So maybe it's literally just pointing to a file that is on some Amazon Web Services storage somewhere. And I already talked about sort of why that's not ideal because, if a platform goes out of business or goes bankrupt or just time passes and it stops paying its AWS bill, then that becomes an error message.

So, instead, the third way of storing NFTs, which is what happens in the vast majority of cases, is that instead the ledger points to a content ID and that content ID is a hash or like a numerical representation of that particular piece of content, and it can also be a hash of that particular piece of content plus the metadata, right? So that can also be
incorporated into the content ID.

And what happens is, if you change even a single pixel in that particular piece of content, then what happens is the content ID is completely different. And so it actually has a lot of benefits in general. First of all, because you can store it in multiple places so you don't have all your eggs in one basket. Second of all, because one of the things that's very interesting about content IDs is, when you go to retrieve a content ID, if you are blocking that content ID, then it's not going to retrieve it from any of those multiple places it's stored. So, in many ways, it actually alleviates the whack-a-mole problem.

MS. CHAITOVITZ: Okay. Thank you so much. And, James Gatto, I think I saw your hand next.

MR. GATTO: Okay. Thanks. Yeah, so I think Marta did a great job of talking about the various alternatives on storage. I want to just raise another issue that I think is interesting and it kind of relates to this topic, even though it may be slightly tangential, and that is, when we talk about the digital asset associated with an NFT, we talk about it as if it's a static thing and it can be, but there's many types of NFTs that have digital assets that are
more complex.

So there are dynamic NFTs where the metadata and/or asset can actually change over time, and that change can be a series of set images that change. So one example is, in the context of games, you may have a newbie avatar that's represented by an NFT, and as you level up, the metadata changes to reflect that you've leveled up and the avatar may change to show an image that's different, that possesses some characteristic of whatever that leveling up is. And that can be a preset image, so the question is where are those images stored. It may be more than one image. So that's kind of one use case, I think, that may take this conversation to an additional dimension.

Another aspect is that there can be programmable art, and so the image, even though it may be the same base image, you can use programmability in the smart contract, and based on data or other conditions, the asset can actually change. There's some interesting programmable art that's used with NFTs.

You also have layered art, which I think is also very interesting. So there's a client called Async that does layered NFTs with music and art. And what a layered NFT is, is that there is a masterwork
and there's an NFT for the masterwork, but there's separate layers, just like in other types of art or music you have different tracks, for example. You can have NFTs that represent each of the layers. And those layers may be separately owned by an NFT owner but collectively make up the overall masterwork that has a single NFT.

So I only throw it out there again to say that there's a lot of variations out there, and I think that these issues can get more complex if we go beyond a static image. I mean, they're sometimes hard enough with just a static image, but we have a lot more to deal with than just that.

MS. CHAITOVITZ: Thank you so much.
And Alfred Steiner and then John Strohm.
Alfred?
MR. STEINER: Sorry. Sorry about that. I was on mute.

MS. CHAITOVITZ: I do that all the time.
MR. STEINER: So there are three ways, obviously, that have been gone over, you know, people have discussed. NFT can be stored on chain, and a JPEG is not a good solution, but vector graphics, Scalable Vector Graphics or SVGs is a good solution.
A lot of people have used those to good effect.
The other thing that's important to note, and James was getting to this in a sense, but more broadly, the NFT is not just -- the smart contract is not necessarily just a smart contract address and the token ID and what it points to or the pointer. It's also all of the logic contained in the smart contract as it pertains to each token.

So the token is kind of like the tip of the iceberg and all that coded logic that's in the smart contract, which contains all the stuff that James was talking about, like, you know, layering or things that would update or change the metadata, that's all a part of the NFT and it's not being engaged that much at the moment. And it also raises another point with respect to the smart contract itself, which, I mean, that's a copyrightable work, it's code, tends not to be -- almost all of them are licensed under the MIT license, which it's very permissive. But, you know, I think that down the road we may see people who deploy smart contracts being a little more proprietary about it.

The other thing I wanted to just mention is with respect to storing on distributed systems like the InterPlanetary File System, for example, I think, you know, this is a question that I have really, but my understanding is, if you wanted to take something
down from the InterPlanetary File System, you would
have to disable all pinning services or all people
that are pinning a particular content ID.

So Open Sea might block a content ID, but as
long as there's one person that's pinning it, it's
still going to be available. So I don't think really
any of this matters that much with respect to
copyright law and how it applies, other than
enforcement. And I think a number of panelists have
made this point already, but, you know, courts can't
do anything at all really with respect to what is on
the blockchain, other than coerce parties who still
have control of an asset or a smart contract, so
coerce them through, you know, fear of jail,
imprisonment, seizure of other assets. But that's the
only thing they can do now, unless there's some
governmental back end that's built into the
blockchain, you know, later down the line.

So thank you.

MS. CHAITOVITZ: Great. Thank you so much.

So now John and then Marta.

MR. STROHM: Hello, Ann. Thank you so much.

So I'm interested in drilling down a little bit on
something that Marta brought up in terms of metadata
and how metadata travels with subsequent sales of
NFTs, and specifically, one thing that I think is a great functionality potentially of NFTs is smart contracts that dictate royalties that apply to subsequent sales for creators and the enforcability of those. And James raised the possibility that licenses, you know, may not even apply to subsequent purchasers, but I'm interested from a technical standpoint in how you can assure that the metadata will travel, you know, whether it's across chains or from subsequent sales, with the NFT. It seems like having a standard for that is critical to, you know, the enforceability of royalty provisions, and I don't have any solutions, but it's something that I'm very interested in what members of the panel might think about that.

MS. CHAITOVITZ: Thanks so much.

And, Marta, I'll throw that to you now and then Kevin next.

MS. BELCHER: Sure. So I just wanted to respond to the two things that have come up involving IPFS and other distributed systems. So just to answer the last sort of comment regarding metadata, so the way that it works is you can put two pieces of content together into a particular content ID and you can sort of put whatever those things are together. So it can
be the content itself, plus whatever metadata you want, all becomes one piece of content ID.

And if you remove that metadata, it's a different content ID. And so that is sort of the answer to how you do metadata that travels. Obviously, it's possible for people to have a content ID that doesn't include metadata, say you generate a content ID without metadata, but, you know, that's the same problem that you have just in general with people not including metadata, but, technically speaking, it's not only possible, but once you actually have the content ID that includes the metadata plus the content itself, it's not actually possible to remove it without changing the content ID entirely.

In answer to the point that Alfred Steiner had made, so that is actually a misconception. There's a misconception about IPFS that it, you know, creates a whack-a-mole problem by having it, you know, in many different places. So what actually happens in reality is, when you're viewing content on IPFS, you view it through a gateway. It's more complicated than this, but you can think of it as like a browser almost. And what happens is, when you send a takedown notice, you send it to the particular gateway, and that gateway then blocks that content ID.

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And what's so great about that is it means no matter where it's stored, if it's stored in a million places or one place, you can't view it through that gateway because it's a particular content ID. So it actually makes the whack-a-mole problem a lot less of a problem than you would see with sort of traditional technologies.

MS. CHAITOVITZ: Thanks. Sorry. Thanks so much.

Kevin and then Hillary.

MR. MADIGAN: Yeah, thanks. So I actually had a follow-up sort of on the whack-a-mole thing and something, Marta, you mentioned earlier in your introductory remarks, which was that, you know, it's actually easier on a decentralized network to block or remove an NFT that may point to infringing content, but I was sort of under the understanding that because of these multiple points of authority in a decentralized network, it would be more difficult to sort of coordinate among those authority points to have an NFT's metadata removed or altered, you know, rather than a centralized network that would really require sort of like one person or entity to remove or alter what resides in that network. So I was hoping maybe you could just maybe expand a little bit on
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that.

MS. CHAITOVITZ: Okay. So, Marta, you can answer, and then I'll go to you, Hillary.

MS. BELCHER: Sure. Yes, absolutely. So there are multiple gateways, but there sort of are typically, you know, sort of the big ones that folks use. And the gateways actually tend to coordinate.

So there's a company called Murmuration Labs that creates open source software. It's run by the former general counsel and head of content policy for Medium, Alex Feerst. And they've actually created a bunch of software that sits on top of our technology that basically allows any gateway to create block lists. And so there are block lists that are curated. So, for example, there's a block list that is coordinated with NIK MIK (phonetic) for that kind of content. And different gateways can actually subscribe to different block lists. And so that is how multiple gateways end up coordinating on the content they take.

MS. CHAITOVITZ: Thanks so much.

And so now Hillary and then Dov. Did we just lose Hillary?

MR. FOGLIA: Hillary, your mic is muted right now.

MS. BRILL: Thank you. And I don't mean to
disrupt the back-and-forth that's going on because I think that's an important conversation, but I think it's unfortunate to be at the end of this whole conversation and not at least address a little bit more the conversation about fair use and first sale, particularly from our perspective, which is thinking about the public interest impact of NFTs. Any discussion of NFTs should take in consideration the fact that they either are helping or hurting both fair use and digital first sale.

And digital first sale has been for different industries a mecca for an opportunity to quantify art or quantify music, and copyright law has been interpreted in a way to make that impossible in different ways until what people think now NFTs enable people to do. The idea of actually being able to resell a digital first sale is so essential, not just because we are now looking at digital artwork, but similar to our analog types of protection with first sale has now become a hybrid with software included and with people moving away from hard books to digital books, so the idea of being able to buy and resell something in a digital file is so essential, and if NFTs are an opportunity to do that in a proper way, we don't want to lose sight of that.
Also, we don't want that to also stop the resale. There have already been publishers that have publicly said we're going to use NFTs so that textbooks can be resold and we get more money every time they're resold. That may or may not be a good thing, but that completely gets rid of the analog option of textbooks, which I know as a professor and other professors or students definitely appreciate buying and reselling textbooks. It's a complicated issue with lots of people involved, but it's important to discuss.

Also, fair use. Fair use doesn't change. None of these copyright law concepts or basic tenets change with this new technology, but we don't want fair use to be limited or hampered because of new technologies, and that is something to consider with NFTs, will it block off access to certain information? Will it be used as another type of DRM or way to close off information? Or will it actually allow information to be on more of a decentralized server and give out more access to it?

So I just want to throw that out there as important issues to consider when we discuss NFTs, IP, and impact on public interest.

MS. CHAITOVITZ: Thanks so much.
So I see five hands right now, Dov, Alfred, Megan, James, and Kevin. And I think we're going to try and end this discussion or this question at 11:30. So, if you can keep your answers to two minutes, that would be great.

So, Alfred, you're next and then Megan.

MR. STEINER: Yeah, I wanted to follow up on my point about IPFS, and I guess my point there is there are a lot of gateways, there are some 80 gateways or something like that, so I don't think it completely eliminates the whack-a-mole problem, and that's, I guess, what I was getting at, so thank you.

MS. CHAITOVITZ: Thank you.

Megan, and then James.

MS. NOH: May I ask for clarification? You said you're going to end this question at 11:30. Will we still be moving on to discuss first sale and fair use, or should I respond to that?

MS. CHAITOVITZ: No, that's part of this one.

MS. NOH: Okay.

MS. CHAITOVITZ: After that, we'll do closing comments and then move to the next panel.

MS. NOH: Thank you. And thanks to Hillary for bringing that up. It's obviously an issue that's
important in the visual arts space. And just to expand upon that point, under Section 109 and settled case law that's applicable to physical copyrighted works, for example, Stern v. Lavender, the owner of a copy of a copyrighted work is permitted to dispose of it, and the display of the image of that copyrighted work, i.e., another copy, is considered a fair use in support of that first sale right.

The language of 109(c), however, it doesn't clearly track digital copies, so it's calling into question the right of the owner of a verifiably authorized copy of a digital work, which is, you know, what we have as a result of NFTs verifying proper purchase. And I take all of James's points earlier on that there can be theft and abuse and instances where an NFT is hacked, but the purpose of an NFT in the visual digital art context is to confirm that the owner of the NFT has an authorized copy of the digital work, but that owner isn't necessarily clearly getting the right to display it publicly or to enjoy Stern v. Lavender precedent of displaying an image of it in connection with resale.

So we talked about marketplace issues on the minter side and reps and warranties being required from the person who mints an asset or tokenizes an
asset. We should also be talking, and we did a little bit at the top of this panel, talk about the lack of consistency with respect to purchasing side licensing schemes. The marketplace seems to have developed a basic consensus that the purchaser of an NFT should be getting some personal display right, but you see a huge variance with some marketplaces acknowledging that that means that the purchaser should be able to display their NFT-related artwork in virtual museums, digital metaverse spaces, interactive environments.

And then you look at traditional auction house buyer-side terms and conditions when an NFT is included in a traditional auction with traditional media artworks and you see really no mention of those things at all. So, you know, in thinking about a potential clarification of Section 109, we again want to be thinking about whether we can place the purchasers of digital works much more clearly on the same footing as the pretty uncontroversial rights we recognize a purchaser of a physical painting or sculpture to be getting. Thank you.

MS. CHAITOVITZ: Thank you.

James and then Kevin.

MR. GATTO: I think that some of the points that Hillary and Megan made are critical, and I just
want to underscore them and add kind of one or two thoughts to it with respect to first sale. I am a big proponent of and think that we should ensure that artists can acquire a resale royalty in connection with assets sold through NFTs. I think some of the issues that have been touched on but just to expand on is that historically there's been some cases, including the ReDigi case, that refuse to extend the first sale doctrine to digital assets.

And in that case, in short, part of it was the rationale why it wasn't applied by the court was that in order, in that case, to make a transfer of a digital work, you had to make a copy of it. Even if the owner agreed to eliminate their original copy, they were still making a copy to transfer it. I think one of the interesting things about NFTs is you don't need to do that because, as we've talked about, the digital asset resides somewhere else and the transfer occurs not even by physically transferring a token but really just reassociating the token ID with a new wallet ID. Nothing is moved; no copies are made. So I think, from the standpoint of the, you know, jurisprudence around the applicability of first sale doctrine to digital assets, that's an important point to keep in mind and I think is beneficial for artists.
But I think the other issue that's really important, and this comes back to some of the things we've talked about, is, you know, when you say you're selling an NFT, what are you selling, right? So, in my view, one interpretation is you're selling the token, but you may only have a license to the digital asset, and if you only have a license, the question is, under the copyright statute as currently written, does the first sale doctrine apply if it's only a license to the asset? And I think that's the issue or one of the issues that should be focused on in connection with this study as to whether or not that doctrine should be revisited if the goal would be to ensure and eliminate issues with respect to the ability for artists to collect resale royalties with NFTs.

MS. CHAITOVITZ: Thank you so much, James. And Kevin and then Dov.

MR. MADIGAN: Yeah, thanks. I guess just to sort of follow up with something that James just hinted at when we're talking about first sale, you know, because the NFT is simply the digital contract governing the sale of the work and not the work itself, you know, the first sale doctrine would likely have no effect on the transfer of the sale of the NFT
itself.

Now, with that said, if the NFT includes the option to download a digital work, like an MP3, you know, there's been cases involving the transfer of digital download codes where courts have made clear that the first sale doctrine does not apply to those download codes or give the purchaser an option to create a copy in the future. So, if the NFT grants the purchaser an option to download a copy of a work, then the subsequent transfer would likely not be covered by the first sale doctrine.

And then just quickly on fair use, you know, fair use is a case-by-case determination and it would depend on the specific circumstances, and we don't really see anything inherently novel about NFTs or the surrounding technology that requires a change to the application of the four-factor test.

And I'd just finally point out that the NFT space is really dominated by commercial sales. You know, there may be some other uses, but there doesn't seem to be a lot of activity dedicated for what we traditionally think about when we think about fair use, whether that's nonprofit educational purposes or criticism, news reporting, research, all that stuff. You know, it's more dominated by commercial sales,
but, you know, just say ultimately we think it should
remain, you know, as a case-by-case specific
application of fair use.

MR. FOGLIA: So we have 10 minutes left in
this session, so, at this point, we would like to
invite panelists to make any final closing remarks.
Those of you who have been waiting to respond to
previous remarks, please feel free to weave in your
answers. Separately, as we mentioned was probably
going to be the case, we did not get to all the
questions we shared with you, so we welcome panelists
to address any topics you were hoping we would ask you
about.

And with that, I will go back to Ann. Who
had their hand up first of the people who are waiting?

MS. CHAITOVITZ: It was Dov and then I
thought it was Marta, but now her hand is down.

MR. FOGLIA: Okay. We're going to start
with Dov and then we'll go to James. Again, because
we only have 10 minutes, let's try to keep closing
remarks to under a minute if possible for each of you.
Thanks.

MR. GREENBAUM: Sure. I just want to sort
of echo what everyone else has said, and that is that
we can't really make any bright-line rules for first
sale doctrine and NFTs. Like many have said before me, an NFT is simply a token. Whether or not that includes any sort of transfer of any sort of rights with regard to the underlying artwork really depends on the specific transaction itself, and so, by itself, there's no reason to assume one way or the other that an NFT would have any sort of implication with regard to the first sale doctrine.

With regard to fair use, I really think that, you know, you look at NBA Top Shot and I can't imagine why, you know, more people don't take advantage of that because, you know, they were taking seconds from hour-long videos and monetizing it like crazy. I don't know why more people didn't act on perhaps the ability to use a fair use version of that video.

And then, finally, I'm really interested, and I brought it up to the panel and all, with regard to the Seth Green case, I think I mentioned it in my opening remarks and that was that with the transfer of the crypto wallet to a second party, whether or not that actually transfers the copyright rights along with the wallet.

We know, for example, that you can get copyrights from illegal activities. You know, the
classic example, I think, is child pornography. A child pornographer has copyright rights in their illegal activities. And so the question is, does the thief or the purported thief of Seth Green's wallet also gain the copyright rights associated with that token that he got through the wallet? So thank you very much for, again, hosting this amazing roundtable.

    MR. FOGLIA: Thanks.

    James?

    MR. GATTO: Yeah. I'll make three points very quickly. One of them is just Dov's that the technological complexity and diversity is very important here, that it may not be possible to draw bright-line rules.

    The second is Joe's point from his opening remarks that the Copyright Law Act currently has a bunch of rules that are written to be technology neutral, and so dealing with that diversity, dealing directly with that diversity rather than trying to make general statements about NFTs overall may be useful.

    And the third, piggybacking off of something else that Dov just said, is that, of course, we're very used to copyright interacting with property law for physical personal property. That's Section 109.
What is at stake here and what may be causing a lot of complexity is that the property law of intangibles is changing, not the intellectual property law but the property law about ownership of things that are not localized in one place, and so we're trying to navigate both of those transitions at once.

MR. FOGLIA: Thank you.

Abby?

MS. NORTH: Thank you. We've been talking so much about legal and technological aspects, and I just wanted to bring it back to songwriters need to be protected. Music artists, performers need to be protected. We can't solely look at the impact on public interest. We also have to look at the needs of the creators.

Secondly, education. I know we already talked about it a little bit, but I just want to reiterate we've seen with sort of digital aggregators, right, music aggregators that those DIY uploaders, they make claims to rights they don't control and that information related to that practice leads to the propagation of metadata that's incorrect around the world to all of the performance rights organizations, to all of the reproduction and the mechanical rights organizations.
And from a rights management perspective, it is so difficult to clean it up. So I would ask that we look at the technological processes that could be implemented to make sure that from the point of inception that the ownership is accurate, the metadata is accurate, and then we can hopefully prevent downstream problems.

MR. FOGLIA: Thanks.

James?

MR. GATTO: Thank you. Yes, I want to just touch on one issue that I mentioned in my opening that we didn't really get to, and that is the question of whether NFTs are merely evidence of some form of ownership of some rights in a digital asset or some other asset or they're a separate digital asset in and of themselves. As I mentioned, there's a case pending between Nike and StockX that that issue is pending.

And I want to just kind of throw out a fact scenario where I think this could be important. So, when you think about right of publicity, if I am a photographer and I take a picture of a celebrity in public and I properly take it, I own the copyright in that image and probably can make an NFT of that image if all I'm doing effectively is selling the image and the NFT just represents those rights.
However, if the NFT is deemed to be actually a separate digital asset, then the question arises whether I'm using the image of the celebrity to promote that digital asset and sell it, in which case it could constitute a violation of right of publicity. So I think there's many interesting issues like that that go to some of the fundamental aspects of how NFTs will be treated, and I personally think that in some cases, it may depend on how the NFT is structured and what it represents, but I just think it's another interesting issue that maybe could be considered in connection with this study.

MR. FOGLIA: Thanks.

Marta?

MS. BELCHER: Hi there. I just wanted to sort of underscore this point about the takedowns on IPFS. I think the analogy there is really analogizing to browsers and imagining that you can block content on particular browsers and no one using that browser can use it. And I think it's a good analogy because, much like with gateways, as Alfred said, there are 85 gateways, of which only 25 are active and of which only a few actually have the vast majority of users, right?

So I think it's a good analogy to analogize
to browsers. And you can see how when you compare it to an internet where you have to do literally thousands -- you know, this thing can just come back up, come back down, come back up, come back down on any number of websites versus being able to block at the browser level, where no matter how many websites it's up on, if you're using that browser, you can't see it. You can see why that makes it a lot easier. So I just wanted to address that general misconception about IPFS.

MR. FOGLIA: Thank you.

John and then Joe.

MR. STEINER: Thank you. I just wanted to, first off, echo Abby's statement about protecting the rights of creators and the need for education, and it's my great hope that there will be more certainty in the future in terms of licensing. I like the direction of a16z, there can't be evil licensing framework, where it sort of streamlines the sort of range of rights for creators, and, you know, I hope we can continue to move in that direction where there's an industry standard for how we license copyrighted materials and NFTs.

MR. FOGLIA: Thanks.

Joe?
MR. GRATZ: So just a couple of comments on a couple of items. First, on first sale, first sale in 109 at least in my view doesn't really have a role to play because there's no distribution of a copy; 109 is only a defense to the 106(3) right, and there's no act implicating 106(3) here. You don't need 109 because, as James says, there's no distribution. There's just the changing of the ownership of a token just by changing the response to the who's the owner question when somebody asks the smart contract.

Second, some smart contracts let artists write their own rules that stick with the token and have inexorable technical consequences, whether or not they legally bind to the downstream purchaser or have any legal significance, and I think that's both interesting and a little bit beside the copyright point. One example of that is resale rights that are enforced on chain without resale royalty rights, which are not part of U.S. copyright law, which you can do using an NFT. Previously, you could only really do this as a U.S. artist with U.S. buyers in the context of conceptual artwork, where you can say, well, this isn't the real artwork if you didn't pay me the royalty, like Alfred's piece that does that. This brings that to a broader community without needing any
change in law, which is sort of cool.

Finally, I want to return to technology neutrality and note that almost none of the really interesting things about NFTs directly implicate copyright law, right? The resale royalty stuff doesn't directly implicate copyright law. The things that implicate copyright law are the most boring things about NFTs, like storing the JPEG on a web server.

MR. FOGLIA: Thank you.

Megan?

MS. NOH: Sure. I wanted to speak to just a nuance that I perceive with something that Kevin said a moment ago. I think that NFTs for visual art are often meant to transfer title to the artwork itself, and that goes to something that James said a few moments ago about really changing practices with respect to the ownership of intangibles, but where we have an artist who intends for the NFT to act as a certificate of title and transfer ownership to the associated artwork, obviously, that's going to potentially implicate the purchaser's first sale rights.

So coming back to 109 for a moment, what are the policy reasons that we care about this?
Potentially changing what 109's language currently reads like and having it better track digital works would create a baseline in the marketplace to mitigate the lack of certainty about rights transfers and assents and enforceability and all of those other issues that we have observed today.

We generally also consider public display to be something that enhances scholarship. It enables institutional adoption. And all of those things are appropriate for what is not just an important development in media technology but really more broadly in the course of art history, right?

I really hope that the subsequent panels address resale royalty issues, which I know are important to John and other members of this panel and are so critical in the absence of a federal droit de suite in this country.

And, finally, I was glad to hear other members of this panel, including Alfred, observe that additional challenges ahead of us include questions about copyrightability, authorship, and fixation, where we're considering developments like works, the composition of which is aided by an algorithm or code-generated work or work that's interactive with a purchaser or has dynamic states. So I'm very happy to
hear that the Copyright Office will also be studying those important issues in a separate study. Thanks so much.

MR. FOGLIA: Thanks, Megan.

Alfred? Alfred, you're still muted.

MR. STEINER: Sorry. Joseph was suggesting, and I agree, that the issues that NFTs raise that engage copyright directly tend to be boring, but the works that NFTs have popularized, auto-assembled workspace on templates where traits are combined or generative artwork where there's a piece of code that through a bit of randomness generates, you know, a massive output of potential images, like, those questions, I think, are very interesting and still, I don't think, decided.

I mean, another one would be can an algorithm -- if I write an algorithm that chooses which traits go together, is that enough so that in each of 10,000 or a billion outputs from an auto-assembled series of artworks each one has human authorship? The Seth Green case, to me, as I think Dov mentioned, to me, if you're a thief, you're not going to get any license. You don't get good title to anything. So, to me, that's not that complicated of a question.
And then, finally, on first sale, I think I'm with Joseph that I really don't see how it applies. If you own an NFT, you don't have a particular copy. But that doesn't mean it couldn't be revised if it raises problems in this context, but I just don't see it, I'm not sure if it raises problems.

MR. FOGLIA: Thank you. We are over time, so we'd like to thank each of you for participating in this session. For those of you who will be joining us for the next session, we're actually taking a quick break. We will be back at noon at this exact same Zoom link. Thanks very much, everyone.

(Whereupon, a brief recess was taken.)

MS. IYER: Well, thank you all for joining us again today. My name is Jenée Iyer. I'm counsel of Policy and International Affairs at the U.S. Copyright Office, and I'm joined today by my colleague, Neil Graham, Senior Copyright Attorney in the Office of Policy and International Affairs in the USPTO, and we look forward to a robust discussion on the Session 2 topic, Uses of NFTs in the Creative Sector, which, as the name suggests, will consider opportunities and challenges arising from the use of NFTs in the creative sector.

So a few Zoom housekeeping points before we
get started. We are recording this session. The recording will be available on the Copyright Office's website on the NFT study page, and the USPTO study will also direct you to that site. The transcription function is activated as well. If you are a panelist on another panel but are not a panelist for this particular panel, please keep your camera off and your mic on mute. And we ask that panelists for this session please turn their videos on.

As a reminder, if anyone viewing this session would like to speak at the open mic in Session 4 this afternoon, the web form to request a speaking spot will be open until 2:15 p.m. Eastern Standard Time. So that form is on the Copyright Office's landing page for this policy study. We will endeavor to have everyone who requests to speak participate, but if the volume is overwhelming for the time, it's possible we will run out of time for open mic. Remember also that the deadline for public written comments in this docket is February 3.

So we have informed the panelists of the format of each session, and the format for this session will start with a brief introduction and a short statement by each participant if they so desire. We request that the statements be limited to three
minutes, and the moderators will be watching the time. After these introductions, we will have a moderated discussion to facilitate the conversation among the participants, and the moderator questions, which the panelists have received in advance, are intended as prompts for discussion, and we may not get through all of the questions today.

So, with introductions, we will begin with the order as stated on the agenda. And, George Johnson, would you like to go first?

MR. JOHNSON: Hi, everybody. My name is George Johnson, and I'm a singer-songwriter and spent 25 years in Nashville, Tennessee, right on Music Row, and I watched it go from 4,000 published songwriters to 400, and I contribute that to the compulsory license and also certain lobbyists and the three major record companies hacking the system. And I've participated in four rate proceedings, SDARS III, Web IV, Phonorecords III, and currently in Phonorecords IV. And I was able, without an attorney, by myself pretty much, to change the 9.1 cents mechanical to 12 cents. I got it indexed for inflation. And then, because of that and the judge's ruling for no static rates, I definitely helped get the 15.1 percent streaming increased to 15.35 by forcing the labels,
NMPA, RIAA, to increase it. And what I've learned is that these record companies, there's three record companies, Warner Brothers, Sony, and Universal, and they've basically hacked the Copyright Office. They've hacked the law and to their advantage. And so they've stopped our sales, and it seems like every time I look inside the Copyright Act, they've written something for the past 20 years to make sure that, you know, it's the most anti-competitive thing I've ever seen.

So my concern is mainly for the download for the song and will that be hacked, will that be taken over by the three record companies to make sure that all their competitors, the millions of American copyright owners who are supposed to have an exclusive right, that, you know, that won't be taken away.

And I'll read one quote here from the former register, Ralph Oman, and he wrote a quote on a book about the nature of copyright, which is a natural right, and I think we've lost that at the Copyright Office and in general, but he says, "The nature of an exclusive private property right, or is it a limited right to be doled out stingily, riddled with exceptions and limitations, to be given away free of charge." And when you look at streaming at .0012
cents, you look at the way that downloads are given away, those are the exceptions and limitations. And I've fought as hard as I can to get those back. So I'd just like to see, especially on song downloads, that they aren't put under a compulsory license and that we really concentrate on the exclusive rights of the individual creator and whether it be for any kind of artwork, and that's it. Thank you.

MS. IYER: Thank you.

Yayoi?

MS. SHIONOIRI: I'm honored to be here. And thank you so much to Jenee, herself an expert in blockchain; Neil, and their teams at their offices for having me. My name is Yayoi Shionoiri, and I'm an art lawyer who has practiced law at the intersection of fine arts for over two decades. I’ve supported fine artists from a legal and business perspective by working in-house at artist studios, currently with the Chris Burden Estate and the Nancy Rubins Studio, as well as supported other stakeholders in the art world, including museums, such as the Guggenheim, and art tech startups, such as Artsy, Startbahn, and Collection.

Regarding my work in the digital art NFT space, I'm entering my fourth year of 100king and
learning both as an active participant in NFT projects, as well as undertaking legal research and providing legal advice.

In my introductory remarks, I'd like to make two points. First, again, in the digital art NFT realm, I'm very specifically interested in NFT as a vehicle or format to effectuate legal design, particularly to assure royalty rights when NFTs are resold on a secondary market.

The idea of royalty rights is something that has been attempted to be effective in the United States at various points in time, both at the federal and at certain state levels, but it is yet to become widespread or common. While there are practical challenges, it's been really exciting to see code in the form of various smart contracts allow for resale royalty rights to be automatically coded and triggered upon transactions occurring on the blockchain.

From there, in turn, it's been great to see behavioral change as well. Some stakeholders in the real life art market are changing or adapting their behaviors to acknowledge the significance of being able to provide resale royalties to artists on secondary sales.

Second, the NFT community in the digital art
world does not yet have best practices that articulates what IP rights are associated with a digital art NFT or continue to travel with that NFT as it exchanges hands. We generally believe that plurality is great for the marketplace of ideas, but it can provoke confusion, especially if there is no default standard from which different forms of licensing can then provide alternatives.

That there is no statutory default in the Copyright Act regarding the first sale doctrine for NFTs was mentioned in Panel 1 with a varying degree of opinions. However, vis-a-vis digital art NFTs, it is my view that under Section 109 there is no clarity on the first sale rights of owners of digital artworks, the statutory default about how owners can reproduce, adapt, publish, perform, and display digital works, which is the full life cycle of what a collector might like to do with their digital art NFTs. And from here, I will yield the floor and look forward to our time together. Thanks.

MS. IYER: Thank you.
Kat Walsh?

MS. WALSH: I'm Kat Walsh, General Counsel at Creative Commons. It's great to be here, and thank you for having me on this panel. Creative Commons is
a nonprofit organization that helps overcome legal obstacles to the sharing of knowledge and creativity to address the world's most pressing challenges. We promote not just sharing but better sharing of knowledge and cultural works.

In order to achieve our mission, we provide the Creative Commons licenses and public domain tools that give every person and organization in the world a free, simple, and standardized way to grant copyright permissions for creative and academic works, to ensure proper attribution, and to allow others to copy, distribute, and to make use of these works. These licenses offer a suite of choices that depend on the artist's individual choice and needs that support the creation and sharing.

There are currently over two billion CC licensed works, including Wikipedia, works of cultural institutions, and works of knowledge. We see open licensing as a way to promote the sharing of knowledge and creativity and NFTs as one way that those in our community are sharing those works without relying on restrictive copyright as the only way to support their creations. We see a lot of opportunity in the ability to separate ownership of a token, ownership of a work from ownership of the copyright and ownership of the
We support a purchase that allow creators the ability to explore individual models that support both the sharing and remixing of culture and gaining the economic rewards for the creator that copyright is intended to protect.

Thank you. I yield the floor.

MS. IYER: Thank you.

Vickie Nauman?

MS. NAUMAN: Thank you so much for having us here. My name is Vickie Nauman. I run a music technology consulting business called CrossBorderWorks. So I work with both early-stage companies, leading-edge technology, as well as large enterprises. And most of the common things that I work on is tech companies that want to use music in their products, and so I help them figure out business models, how to license music, what the risks are, who the partnerships are. I also now work with a number of music companies who want to do more with technology.

So I'm truly sitting in between these two sectors. I've worked in music, in digital music, since the very first disruption, and I've seen many, many ups and downs in the last -- that was in 1999, so
many ups and downs over the last 23 years. And I believe, in very general words, that we are at the early stages of fundamental changes of how we engage with information online, how we communicate with other people, and how we work with technology and the internet. This change is underway, and it will probably become more apparent in the next three to five years, but I think the entire transformation will probably take decades. It's a combination of AI and the suite of Web3 technologies that are really driving and at the core of this change.

We're still in a really early stage and it's going to be volatile in many ways like it was in the early 2000s, when there were spectacular failures of companies and jaw-dropping amounts of money that was raised and lost, so I'm not fazed by any of the volatility of what we have. But, once again, I work in music, and so music is at the forefront of this disruption, and these companies see music as a way of emerging platforms attracting users and getting music and innovation, you know, in the spotlight with their tools and technology.

And at the core, while the music business is growing again, which is fantastic, we still have troubles and we still have problems in our Web2 world.
that we have not solved around getting money to flow to the right people, fairness in deals, and just many other small problems related to data and licensing. So I think that many artists are really seeing Web3 as a new way of expressing themselves, of making money and engaging with fans, partially because the models don't work now; partially because artists are just naturally drawn to new ways of creative expression.

And the traditional industry of labels and publishers, I have to say that they are responding much better now than they did 20 years ago. And, you know, 20 years ago, when we had disruption, they wanted to just shut everything down, you know, and put the genie back in the bottle, the toothpaste back in the tube, shut the technologies down. And I'm not seeing that now. I see that labels, publishers, performing rights organizations and the artists they represent are all trying to understand these new technologies, in particular, with NFTs. But we have wide-ranging confusion in this space and there's a lack of any kind of best practices.

And with music specifically, there are a lot of problems around music rights. Who gets what share? What rights are implicated? How do we track the music and all of the fundamentals that we've taken 20 years
to build in Web2 that are not perfect, but at least we
do have some norms. And, you know, I'm really happy
to be here today because I really want to try to help
companies legally use music, come up with fair deals,
but I think that there are many struggles right now,
and what I want to avoid is things getting slowed down
so that we don't have the innovation or that companies
go down the ask for forgiveness path, which almost
never ends up well. So thank you for having me, and
I'll turn it back over to you.

MS. IYER: Thank you.

And Steve?

MR. KRAUSE: Thanks, Jenee. My name is
Steve Krause. I'm Senior Vice President and Deputy GC
at Dapper Labs. Thanks very much for having this
roundtable. I appreciate the opportunity to join the
conversation.

Dapper was the first mainstream NFT
platform, starting in 2017 when it released
CryptoKitties, the first successful game featuring
digital collectible NFTs. We now partner with some of
the world's biggest brands to create digital
collectibles, including NBA Top Shot, a platform
authorized by the NBA that allows fans to collect,
trade, and sell unique NBA video moments with
authenticity and ownership guaranteed by the blockchain. We have similar platforms and partnerships with a variety of other tier one rights-holders worldwide.

We at Dapper believe that the blockchain and Web3 technology should be safe, secure, and accessible for everyone. An important part of this is ensuring that creators and consumers each clearly understand the rights being conveyed with their NFTs. With that in mind, all of our products and partnerships provide easily accessible and clearly worded NFT licenses that protect the rights of content creators while also ensuring that consumers are aware of those rights before they buy.

While these agreements are legally sufficient and enforceable, we also feel that the NFT creator community writ large can do more to increase consumer awareness and standardize NFT license terms across the industry. It seems clear to us that the current lack of license standards for NFTs is a barrier to broad-scale interest and adoption.

The good news is that we already have great models for open source template licenses for digital content. I was happy to see Kat Walsh participating in today's roundtable. CC has done so much to make
the licensing of digital content easy for both creators and consumers. We're looking to build on their foundations and have been working to develop a set of simple, community-driven, open source template licenses that content creators can apply to their NFTs on creation and that would stay with them throughout the NFT's life cycle.

In addition to including the more common license types, like personal use, commercialization, et cetera, our engagement with our creator communities suggest that these licenses can be expanded to include other benefits unique to NFTs, including things like voting rights, which give NFT holders the ability to vote on certain decisions related to licensed content, or additional experience or content rights which allow NFTs to convey added benefits to whoever owns them.

We feel strongly that any standardized license rights implemented across the industry should be clear and simple, be presented to consumers for review prior to purchase, and allow creators to flexibly mix and match the rights they want to convey. We expect other rights use cases to develop over time, and as they do, we'll update our license templates and our continued efforts to protect rights-holders and ensure that consumers clearly understand what they're
getting before they buy.

I look forward to expanding on this and other topics during the conversation. Thank you very much for inviting me.

MS. IYER: Thank you.

And Shekinah?

MS. APEDO: Hi. My name is Shekinah Apedo. I'm the General Counsel for Deadfellaz NFT Project and the former general counsel for Artifact, which was acquired by Nike in 2021. Yeah, what I do on a day-to-day basis would be transactional law, so just basically working with a lot of contracts, helping with negotiating different deals with my clients. And I would say, you know, when I think of Artifact and when I think of Deadfellaz, you know, these were two teams of creators, they were artists at heart who had a dream, and with that dream, they want to put their art into the world, and with the technology of NFTs, they were able to do that on a large scale.

Obviously, like I said, Artifact, acquired by Nike, now has the opportunity, you know, to live out that dream and share their digital sneakers, their digital collectibles, and also now physical apparel, share it with the world and put it into the hands, you know, of those they wanted to.
When I think of Deadfellaz and the work that we've done, we've collaborated with the Chicago Bulls. We've collaborated with Wrangler Jeans. We've collaborated with Draft Kings, with Gilson Snowboards and, you know, just to see that -- for the artist, you know, to see their art, you know, in different mediums and displayed in different industries, again, it's another dream come true.

And so I would say that the NFT technology, it's all about empowering the artist. It's about empowering and strengthening the creator economy and putting power back into the artists' hands. And I think, you know, Steve kind of touched on this as well and so did George, you know, touch on this, where, you know, the corporations, your industries, your music labels, you know, what have you, have had, my goodness, such a monopoly, you know, on the creations of others. And so I see and we see NFT technology, smart contracts as a tool that's going to empower artists and see more diverse art, you know, in the world. Thank you.

MS. IYER: Thank you.

And Jeremy?

MR. GOLDMAN: Hi. I'm Jeremy Goldman. I'm a partner and co-chair of the blockchain technology
group at Frankfurt Kurnit. I've been practicing at
the intersection of copyright and technology law for
15 years, and I love copyright, and I even have -- I
have a suit on, but I have a copyright symbol tattoo
to prove it. Why do I love copyright? Because
copyright's prime directive is to kind of just --
beautifully laid out, it's to promote creativity, and
I strongly believe that NFTs have shown that same
potential.

That's why two years ago I made a decision
to become an IP NFT lawyer, a title that I admittedly
made up. And since then, I've been fortunate to
represent some of the leading NFT projects, including
some of the folks that are here and have been
mentioned here. And I've been helping clients
leverage this new technology to launch original
content, to license IP to communities of thousands,
develop some of those licenses that Steve is talking
about, develop centralized IP marketplaces and more.
And today I want to talk about three topics.

And can I just say when this panel came out,
I tweeted, "Is anyone else more excited about this
panel than me?" And people told me no. They also
said, you know, you probably have to get a life,
Jeremy. But I imagine some of the other folks on this
panel were very excited as well.

All right. So number one, I want to advocate for sensible policy around NFTs. Although digital tokens have many potential applications, non-fungible tokens, thus far, primarily have been vehicles for the creation, distribution, and exploitation of works of authorship. We're very lucky because the government has an office that specializes in works of authorship and intellectual property, and it's not the Securities and Exchange Commission, right? It's the Copyright Office of the U.S.A.

And, undoubtedly, there's a strong need for consumer protection around NFTs and digital tokens, but we have folks like the FTC and the DOJ that can take care of that. So I want to be smart about regulating NFTs so that we can let this IP coup flourish. And on this policy point, I'm going to refer to Diana Stern's fantastic article recently published on Coindesk, and so I'm sort of echoing those sentiments.

Number two, I want to share where I believe NFTs fit in the rubric of existing copyright law, and that is this: NFTs, in my opinion, substitute for the material object that embodies digital works. What do I mean by this? The Copyright Act, as many of the
folks here know, distinguishes between the copyright on the one hand and the material object in which a work is embodied on the other. When an artist sells a painting, the artist sells the material object but keeps the copyright.

The problem is that digital works are not material objects. Courts treat them that way, but it's a terrible fit, including because the first sale doctrine's application to a particular copy of a work makes no sense when applied to digital files. This is a repeat theme, as Ms. Shionoiri astutely observed already. NFTs, I believe, solve this problem by creating a new way to own and sell digital works. NFTs substitute for the material object that digital technology rendered obsolete. When a collector buys an NFT associated with a piece of digital art, the collector receives the same rights and privileges as a company that purchased a physical work of art.

I believe that conceptualizing and treating NFTs as the new material object under copyright law and potentially modifying the law to match that will prevent a lot of mischief and help bring some of the understanding that Steve was talking about.

Finally, I want to raise a more practical issue. Many NFT projects, including so-called PFP
projects, involve collections of characters or other digital artworks that are created by combining various traits and other elements and layering them together, and questions have been raised as to whether these collections should qualify for copyright protection. Of course, they should. The threshold for creativity is extremely low. If a simple fabric pattern of stars and clouds is copyrightable, surely these far richer artistic expressions should qualify.

I've also seen questions about human authorship. It's true that the artists behind these collections frequently use a computer script to help automate the layering process, but humans, not computers, perform the lion's share of the work and ignite the creative spark that births copyright. These collections are conceived not by generative AI but by the imagination and hands of human artists. It would be a mistake to deny copyright protection to these human-created works of authorship.

Unfortunately, and this is my last point, the copyright registration system is not optimized for these types of collections. There's no intuitive way to group register a collection of digital art. It would be greatly appreciated by me, by my clients and the industry if the Copyright Office would go ahead
and fix that. Thank you very much, and I yield the floor.

MS. IYER: Thank you.

And Jordan?

MR. BROMLEY: Well, I don't know how to follow that, but I will say I am pretty excited to be here too, and it's nice to see some familiar faces on this panel. My name is Jordan Bromley. I'm the leader of Manatt Entertainment. We have over a hundred lawyers working daily on entertainment matters. We've been doing it for over 45 years. I also sit on the Board of Directors and am a kind of relentless advocate for music artists' rights. I sit on the board of Music Artists Coalition, so our job is to promote the creator, the music creator, without any kind of hesitation or reservation or conflict.

I will say that when the NFT boom hit the music industry, we were three of the top 10 drops in 2021, so we very quickly got up to speed on what an NFT was and helped create kind of licensing models for the music business. To Vickie's point, it's all over the place. You start with what the NFT is, and I think the first thing for everyone, you know, listening in or watching to understand is an NFT could be anything. It is a container, it is a ledger, it is
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a list on the blockchain. And so that comes with --
you know, there are pros and cons. So I'm excited to
be here. I look forward to the conversation, and I
will yield the floor.

MS. IYER: Thank you.

And Ashley?

MS. JOYCE: Hi. Thank you for having me.

My name is Ashley Joyce. I'm with the National Music
Publishers' Association, and we're the trade
association that represents American music publishers
and their songwriting partners. We work to protect
and advance their copyrights and to help them exploit
their copyrights to the extent they can, and that's
where we're very excited about the NFT marketplace.
However, we do have concerns. A lot of those I'm sure
you share as well with regard to piracy and
infringement and accountability and with regard to
what NFT platforms can actually accomplish.

So here are our main concerns. I just have
three that I'm going to highlight right now. First,
we would love to see NFT platforms and sellers involve
all rights-holders with respect to music. This means
ensuring that music publishers and songwriters are at
the table when NFT deals are done. A songwriter and a
music publisher owns the rights to a musical
composition, meaning the lyrics and the musical notes
of a song, and the artist and label owner administer
the rights to the sound recording. Both copyrights
need to be cleared.

Further, we also need to better understand
the licensing schemes that are at play. Section 115
of the U.S. Copyright Act, which concerns compulsory
mechanical licenses, we can't imagine when this would
apply to an NFT deal. There are master, sync,
reproduction, graphic, performance, and derivative
work rights that need to be cleared in NFT deals just
to name a few. And it would be great if NFT platforms
and their lawyers and their sellers that are educated
on that engage the right music licensing copyright
counsel in those deals.

Finally, we would love to see more
transparency and education among NFT platforms.
Steve, it was great to hear that Dapper Labs, you
know, engages with licensing with regard to all NFT
deals. Legal terms that can accompany all NFT sales
would be fantastic for encouraging transparency and
education with regard to deals involving music.

You know, specifics with regard to how
platforms can be more transparent would include this:
being more specific about how music will be stored and
how infringement and piracy will be addressed, what
tracking capabilities platforms have via smart
contracts or otherwise regarding ownership splits,
royalty payments on and off platform.

And also, there needs to be better
information and transparency on how metadata and
information and ownership will be vetted with regard
to NFT deals and how that will be stored on the
immutable blockchain. We see a lot of problems with
regard to kind of what Vickie pointed out, with how
metadata and inaccurate information will be handled
when it is entered into the blockchain.

We can't emphasize enough how legal terms
should always accompany any NFT sale to clarify what
is being sold and what rights are being conveyed. And
if we can accomplish and fix some of these problems,
we would be ecstatic. And we do hope this NFT
ecosystem thrives but, you know, always to enhance and
protect and promote the real creators. Thank you.

MS. IYER: Thank you.

Tonya?

MS. EVANS: Good afternoon where I am, and
good morning, evening, wherever you are. I'm a
tenured professor of law at Penn State Dickinson Law
School and a co-hire at the Penn State Institute for

I'm a crypto policy and education consultant, host of the podcast, "Tech Intersect," and also pretty prolific in this space for law review articles, the first of which was, "CryptoKitties, Cryptography, and Copyright," shout out to Steve Krause, where I explored for the first time back in 2018, 2019, the really important and seminal work of CryptoKitties not just for adorable kittens but also for the importance of a licensing scheme and what it might look like in the future for ERC-721s at the time.

My point of view is really coming at this to ensure that the disintermediative impact of crypto assets on the financial market can have a similar impact from the power and the potential and the creative side. And so what I'll be discussing today are two of the more recent articles, "The Genesis of Creative Justice: How to Disintermediate Creativity," and, "De-gentrified Black Genius: Blockchain Copyright and the Disintermediation of Creativity."

Essentially and in sum, that title, that moniker, gentrifying our genius, comes from actor and activist
Jesse Williams, who portrayed Dr. Avery on "Grey's Anatomy." In 2016, during his BET Awards acceptance speech, he used the phrase, "To condemn the insidious process of misappropriating artistic productions of black creators, in particular, as inventors and innovatives." And although creatives are really inspired to create simply to express their creative spark, obviously, the framers of the Constitution created copyright, the copyright regime, through a lens of economic incentives.

And the reality that black artists in the United States historically have received less protection or, in some cases, no protection for their work has severely undermined the intended economic benefits to the creator and the benefit to progress to society as a whole, and importantly, during the period of enslavement, black people were regarded as property and, therefore, legally incapable of creating or owning property of their own, and the loss of generational wealth is obviously incalculable.

Often, poor economic conditions, discriminatory practices, misappropriation, certainly unscrupulous representation across the board have all led to unconscionable deals that have left even the most prolific and successful artists destitute,
indebted, with no attribution compensation through a deal. So what I hope to explore from my point of view is really leveling the playing field.

A final point in my writing focused on how might -- and I know this may not be popular with some of the larger interests, but automating termination rights as a matter of reclamation of copyright would be a really interesting way to explore this and to level the playing field, particularly with respect to negotiations neutralizing the impact of predatory and discriminatory practices when seeking gatekeepers and the like. Aspirational, to be sure, but attainable via decentralized autonomous copyright termination.

And with that, I yield back, Jenee, and to all of the folks, this is an outstanding panel, so I am trying to contain myself and not totally geek out, but others came before me and they were excited, so I will let you know I am equally excited and thank you.

MS. IYER: Thank you.

Umair?

MR. KAZI: Hi. Thank you, everyone, and I'm grateful to the Copyright Office for inviting me to participate in this roundtable. My name is Umair Kazi. I'm the Director of Policy and Advocacy at The Authors Guild, the oldest and largest membership
organization of authors in the United States. We currently have over 13,000 author members that include novelists in all genres, categories, nonfiction writers, journalists, historians, poets, scholars, recently published authors, as well as independently published and self-published authors.

And the Guild's advocacy and policy platform is focused on helping authors survive in the business of writing and responding to pressures that drive down writer earnings. We've been an active stakeholder in various copyright policy fora for a long time and served as the author community's representative before Congress and federal agencies, most importantly, the Copyright Office.

The purpose, mainly, I'm here today to kind of listen and learn because the application of NFTs in writing and publishing isn't as advanced as it is in some of the other creative industries like music and visual art. That being said, there is a lot of interest from the writing community, especially writers who work in robust fan-driven communities and genres, like romance, mystery, thriller and fantasy, to understand how NFTs could be used for purposes of fan engagement and just expanding the range of possibilities for using and enhancing their work.
There's some obvious ways where NFTs can be used to benefit authors. Like other creators, authors can use NFTs to produce digital collectibles, limited edition copies, and special content that only NFT owners can access, bundling with other kind of experiences. I was having a conversation with a friend of mine who's a rare bookseller and he mentioned how there's possible application of NFTs to indicate ownership of first drafts because a lot of writers -- I mean, I don't know anyone who writes by hand anymore. I hope they do. I hope that continues, but even sort of, you know, for the estates to, down the line, auction a first draft of a novel, a document file and authenticate it.

There are already some examples of authors using NFTs. Margaret Atwood sold a poetry collection with the Codex Protocol. Neil Gaiman sold an NFT of a short story that's on the SuperRare platform. And J.K. Rowling, you know, unsurprisingly, has launched her own sort of NFT platform called the Wizarding World, and that provides fans to purchase digital collectibles, including rare books and illustrations, et cetera.

I think this is going to kind of -- this idea or this theme is going to be developed as this
roundtable continues, but in my thinking of the NFT marketplace and because authors and publishers are not currently as active in that marketplace, in a way, the integrity and the youthfulness of that marketplace will kind of depend on how many legitimate, you know, -- and copyright holders, how many legitimate owners of the intellectual property are actually the ones minting NFTs because if, say, authors never participate in the NFT marketplace, then it leaves open the potential that people will just be minting NFTs based on books and characters and, you know, monetizing that, and the author would have no inclination or indication that that's happening.

MS. IYER: Thank you very much. I'm going to interject for just one moment.

MR. KAZI: Okay. Yeah. Yeah, I can give a statement in the comments.

MS. IYER: We're going to move on. Thank you, and we look forward to hearing more as the roundtables go on.

And, Jeff, would you like to introduce as well?

MR. SEDLIK: Sure. My name is Jeff Sedlik. I'm a professor at the Art Center College of Design, and I'm also the CEO of the PLUS Coalition, and PLUS
is a nonprofit organization that serves as the global standards body for the licensing of visual works. All of my comments today will concern or be focused on visual works.

And for visual artists, their ability to create new works depends on copyright. Perhaps there are exceptions, and we know there are exceptions, artists who have trust funds or are enshrined in academia, like me, and artists who have full-time jobs or who are lucky enough to be supported by partners or what have you. But those artists who wish to focus on the creation of their works, their ability to continue to create new works for the most part depends on copyright. So I share Jeremy's passion for copyright, and I always have. Although I do not have a copyright tattoo, I am very interested in the concept of tattoos and copyright, as some of you might know.

One of the issues with NFTs, and I'm generally supportive of NFTs and see my fellow artists earning revenue, much-needed revenue to support the creation of their works through NFTs, is rampant infringement. There's infringement on all the platforms. I'm a photographer myself. I can go on any platform right now and find infringements of my works, and many of those infringements are copies of
photographs that are turned into derivative works or that are derivative works where someone will take a photograph and just use a Photoshop filter to posterize it or remove the color or add a layer or what have you.

And, certainly, there are fair use issues and the possibility of fair use exceptions, but many of the copies that I see on the NFT platforms are simply minor adjustments to photographs that are then placed as derivative works on these platforms, and as a result, those smart contracts are invalid. And on top of that, there is a lot of confusion on both sides, both by the sellers and the buyers, as to the rights that they're granting and receiving and what they have the right to do.

There can be, for example, conflicts with exclusive licenses that already exist and people then take a work, put it up as an NFT, and then, perhaps through the rights that they grant, it ends up getting used in a manner that conflicts with an already granted perpetual exclusive license or a time-based or a territory-based exclusive license. There are third-party rights as well that can be infringed, such as was mentioned earlier today, right of publicity issues. There's currently some litigation around
right of publicity with celebrities appearing in NFTs. And one of my primary concerns is that market pressure is gradually forcing artists to release more and more rights, and it's inevitable, and you can see this coming, the licenses on the platforms are getting broader and broader or the expectation of them are getting broader and broader, all the way to the point where we will see, I'm sure, platforms that only offer an assignment of copyright as an option with an NFT. And, in addition, you know, Professor Evans mentioned copyright termination, and that is a concern with NFTs, where the NFT is licensed and then 35 years later, you know, what happens.

And, lastly, you know, there has been a lot of talk about no copies being distributed with association with NFTs. And we should all consider that there are copies distributed. Every time a work is displayed on the web, a copy is transmitted to the person who's receiving it. It's in their browser cache. It can be perceived. It can be viewed. It can be copied. It can be further distributed. It's there, a digital copy, on millions of machines from people who have viewed the work. And I'll stop there and let us get going.

MS. IYER: Okay. Well, thank you all again
for introducing yourselves and welcome again. So, to begin the discussion, we'll start with a question that many of you touched on during your introductions, which is, what opportunities and challenges do you see arising from the use of NFTs in the creative sector? And, with that, we will open the floor to everyone, and, again, I know many of you touched on this in the opening, so you're welcome to kind of revisit some of those ideas or continue thoughts in that direction if you'd like to.

MR. BROMLEY: Yeah, I've got one on the music side. And, oh, sorry, I saw that people are raising hands. Is that what we're supposed to do?

MS. IYER: Why don't you continue and we'll move to hands after that, please. Thank you.

MR. BROMLEY: Okay. Sorry. I'll raise my hand next time. With music, as Vickie mentioned, it's kind of the canary in the coal mine on a lot of new technologies. I would say that, you know, echoing Jeremy's sentiment, we don't want this regulated. This should be artist-linked transactions. That's the challenge, is making sure that we can get a licensing regime in place, but it all really depends on what it is. It's really important to go back to what this NFT is and how music is embodied in the NFT. You have to...
do the brass tacks of the what before the how.

I will also say there's a huge opportunity in ticketing, a huge opportunity in ticketing to control the secondary market. I know we're seeing a lot of heat on the Senate side and the House side on the Swifties throughout the world. I feel that the secondary market is driving a conversation while reaping the benefits of grossly marking up ticket prices for artists that they don't participate in. NFTs, you're allowed to control secondary resale prices and participate in the benefits. It seems like a total no-brainer. And those are my comments. Thank you.

MS. IYER: Thank you.

Steve?

MR. KRAUSE: Thanks, Jenee. Yeah, I think opportunities first and then challenge, right? So two opportunities I would highlight. One is obvious, I guess, is new revenue streams from existing intellectual property. This is something that folks, you know, are finding, like NBA Top Shots is a great example, right? You've got an existing video of a game and now they can actually -- you know, they can further monetize those experiences. And there are plenty of opportunities for smaller artists as well to
further monetize their existing intellectual property
and encourages the creation of additional intellectual
property.

One of the other opportunities is fan
engagement. I'm a big Bruce Springsteen fan, yeah.
Bruce Springsteen has no idea who I am, but with the
use of NFTs as a way of tracking and managing and
encouraging community, right, by adding additional
rights as part of these NFTs that are distributed, the
right to have additional experiences, additional
content for the holders, the right to vote on what my
song list or set list ought to be for tomorrow night,
you know, these types of things are unique
opportunities for artists to be able to connect with
their fans, right, in a new and interesting way.

And I want to put that out there because,
really, I mean, I'm a performing artist myself. I've
even won an award, a songwriter award in Australia for
some reason, and, you know, folks, my friends in the
music world came up to me when the NFT stuff was
booming and they said, well, can I be a millionaire.
I said, do you have a fan base, right? What it's all
about is a new opportunity to use art to connect with
your community and to build community. That, I think,
is one of the primary benefits of NFTs.
As for the challenge, I think that people have been hitting it on the head, right? The challenge is that folks -- well, there's two, but the big one that I'll focus on is that folks don't know what they're getting, right? We at Dapper make a real point of making sure everybody is aware of what we're getting, and it's a little easier for us because we're working with tier one intellectual properties, right?

But the work that we're doing to develop our licensing model that we're going to open source and share with the world is to allow for a standard template of license templates that sort of fit the NFT world and to create a set of badges, like Kat Walsh and Creative Commons have done, that tack along with the license, that show so that when a badge appears on the NFT, folks who see it are aware that this thing has a license associated with it. You can click on the badge. It'll take you right to the site, have a little pop-up that shows what rights you get in your NFT. So these are solvable challenges, but they are challenges.

MS. IYER: Thank you.

Yayoi?

MS. SHIONOIRI: Thanks for that. And, again, speaking regarding digital art NFTs,
conceptually speaking, for the art world, digital art NFTs made real the idea that you don't need to own something tangible for you to still have something unique, something that Jeremy already kind of mentioned, right? The difficulty of this idea becoming mainstream was really reflected in the naysayers to NFTs. At the beginning of the bubble, these naysayers often made fun of people who were willing to buy expensive digital art NFTs, saying that these NFT collectors were paying a lot of money for JPEGs that could easily be copied, so where is the value?

Less people now, I think, make this argument because it's become more accepted that NFTs are non-fungible, in spite of the fact that the underlying asset which is connected to the token can be replicated. And I think that's one of the more interesting concepts that will relate itself on the traditional art world and its market. And, in turn, digital art NFTs have helped to change the way that creators and collectors think about underlying copyright to these assets, and I imagine we will discuss this further as we think about licensing.

In terms of opportunities, from a policy perspective, again, related to the art world, there
are two main avenues of opportunities. One, as others have mentioned, it allows for artistic and creative innovation in the digital realm, meaning a new format for exploration within the larger genre of new media art, internet art, and digital art. And two, there's an opportunity to expand the community of individuals who consider themselves to be part of the art world both on the supply and demand sides.

Challenges, repeating what many of you have already said, opportunities provided by tools used in the wrong way can, of course, be hugely problematic. From a copyright perspective regarding digital art NFTs, unfortunately, the possibility for infringement through unlawful reproduction or adaptation and sales of work that have infringing elements is quite common, as mentioned by Jeff. And so it seems to be that what we might need is better need for guardrails, most likely at the industry level, to better protect original creators from bad actors. Thank you.

MS. IYER: Thank you.

Vickie?

MS. NAUMAN: In my work, I think a lot about business models, and I think it's really important for everyone who's looking at this space to understand the business models of music and what we have now versus
Web3. In our current world, we basically have
catalog-centric business models that require Spotify,
Apple, Youtube, social media companies to license
everything from everyone.

Web3 business models are very much around
the artists, so they're very artist-centric, and
artists are kind of coming into this, and I mentioned
this in my opening statements, but I want to go into
just a little bit more detail here because I think
it's really critical to how this can evolve for music,
is artists come into this for three reasons: creative
expression, new forms of creativity, oftentimes a
bundle of goods, mix of services, maybe access to
ticketing, access to the artist, meet and greets.
Maybe there's audiovisual. Maybe there's an owned
good. Is it like a download? What is this?
Sometimes the artist initiatives don't have any sound
recording at all, it's just really about their brand.

And the other thing about Web3 is that it
sometimes is challenging the very core of what we
think of as a song. We think of a song now as a
composition that's been fixed into a recording and
then it is released out in the supply chain and able
to be listened to in its entirety. And Web3 is very
much more about songs and music and media constantly
evolving, possibly co-creation with end users, and these things challenge a lot of the issues that we have around copyright and licensing.

The second real motivation is fan engagement, and we have a long history now of artists and fans only being able to reach each other through third-party platforms. And so this is something that I think is seen as being very liberating and very tribal. And music is very tribal, bringing a subset of your fans together, engaging with them directly. It's a huge draw.

And, of course, monetization, creating value with the end user around this, selling -- reintroducing scarcity, selling scarce goods, access to tickets, lots and lots of different ways to create value with the users, so this is all the opportunity. It sounds really great, but what we have are a lot of conflicts around how and what rights are needed.

In these artist-centric models, we need a constellation of rights around the artist, artist name, image, and likeness. Who owns that? Who controls that? The sound recording and the publishing? This is often -- sometimes it's kind of a hybrid of what I would think of as the synchronization model, but it's very, very muddy. And what we're
already seeing is artists who may be signed to major labels or major publishers going into the NFT platforms and repping and warranting that they're bringing all of their rights into the table and they're not. And, you know, we've had a period of time where labels and publishers are kind of looking the other way, but I think that's coming to a close. And so we need to come up with different ways of licensing and bringing these things to market legally.

And as another complexity around these tiny deals, you know, little artist-centric models versus full catalog deals, is that I don't see, because each of these are so different, I don't see labels, publishers, PROs, all the different stakeholders coming to consensus anytime soon because they don't need to. People had to come to a consensus for Spotify and Apple Music and YouTube because it was a massive platform and everyone needed to agree on the same functionality. And we're at this early stage.

And I think this is actually a good thing. You know, we need new business models in music and so we need the time to experiment, but at the core, and this is my last comment here, is at the core of all of these models in music is always the question of how do you divide the pie. How much do the labels get? How
much do the publishers get? Is there a performance
right? How much does the artist get?

And we have a situation right now where
music publishers are oftentimes being brought into the
correlation very, very late. And I talk to many NFT
companies who have done a deal with an artist's
management company or a label, and I'm explaining to
them that they only have half of the copyright and
that they need the publishing, and they're looking at
me, saying things like we believe we're in a post-
copyright world and not really wanting to understand
that you are, for all the advantages of music, you are
entering into a very, very complicated world in which
you are squarely in copyright land.

And on the other side of the publishers not
wanting to necessarily set precedents and being a
little bit afraid of doing something that they will
regret later, on the other side, we have labels who
are actively seeing opportunities for promoting their
artists and wanting to set precedents. And I think
that one thing that is missing out of all of this is
that in the Web2 models, the artist kind of passively
comes along with their label and their publishing
licensing to broad platforms. But, in Web3, these are
artist-driven and they're very artist-centric. And I
believe that the artist does need to have a share of the revenue that's above and beyond what the sound recording or the publishing might garner because it is the artist's brand and it's the artist's fans and the artist is doing all the activity to pull people into these worlds.

And we don't have a norm around that, but it really is an artist name, image, and likeness rights. And this is something that I think, you know, it garners having their own share of the pie, but we're in a stage right now where, you know, we just have a lot of muddiness around this, but I think that we have to think about this not only with labels, publishers, and PROs as traditional stakeholders but some way to continue to incentivize the artists and having some direct compensation to them as well.

MS. IYER: Thank you.

And so I see we have five, possibly six, persons with hands raised. So I'm going to request everyone kind of keep the examples to a minute or two so we'll have some time to move on to our next questions. So Jeremy?

MR. GOLDMAN: Yeah. So I always like to pin everything to the constitutional directive of promoting progress of science and the arts because I
think that's what we should be driving towards, this is a Copyright Office thing. So I want to focus on an opportunity that is a very gray area but I think should be less gray area, and that is using NFTs to fund-raise for IP projects. And, you know, people are, you know, doing crowd funding using NFTs, and it's very uncertain whether this is a security and whether this runs into other problems. And I think that we should try to clear that up because I think there's a tremendous opportunity to fund independent film, to fund music, to fund influencers and creators and independent creators around the world using non-fungible tokens as a way to fund that project and then potentially use tokens to share in the revenue and royalties that are distributed out to the people that help support those people.

And, you know, Congress did something with the Jobs Act, they did a crowd funding regulation to help with that. I think there should be something specifically for intellectual property, and I think tokens are the way to do that. The challenges, and I'll just focus on that, but the challenges are always, you know, I think, regulatory. I think there's a lot of uncertainty about whether that would constitute a security, and I think we should clear
that up, and I go back to my initial comments about smarter policy would encourage people to use these tools and have just clearer regulations around it to protect consumers.

The other point I want to make in terms of the challenge, which I think will come up probably on some other panels, goes around enforceability of all these licensing terms that people are talking about. Part of that is a technical solution, and part of that might be some sort of regulatory solution, but it's pretty easy to have terms of service click through when you're minting something, when you're in the initial checkout. It's sort of an industry-wide issue that when you have this secondary market for tokens, those terms sort of like, they're like a fart in the wind, you know? They're just gone. And I think that people have tried different ways creatively to get around that, but I think that we need an industry solution and potentially some regulatory solutions to help enforce those terms. Thank you.

MS. IYER: Thank you.

Kat?

MS. WALSH: Yeah. One of the opportunities that I see is the ability to separate the rights and exclusive ownership of the work from exclusive rights
under copyright. And I like that Steve brought up in his example some of the things that happen along with NFT sales. On that platform, it's not just right to copy and distribute the works but like access to experiences, access to forums, things that have nothing to do with the copying and distribution of the works themselves.

And I'll say I am a copyright nerd, I think a similar level of nerdiness to Jeremy, although I do not have a tattoo. But I've been practicing copyright for almost all of my time as a lawyer. But I don't love copyright itself. Like, it's hard to love copyright itself. It's a tradeoff, like what we love about copyright is not what it does directly but what it enables others to do. And what we love about copyright is that it enables people to create that work and also share that work. And what we're seeing at CC is people using the technology of NFTs and the concept of ownership that they create to share those works even more liberally than they would have otherwise while keeping some of that right.

You know, copyright, as an economic right, is designed to allow artists to get some benefit from holding some sort of exclusive rights, and the tradeoff is that the work of art itself is restricted.
It can't be part of the cultural conversation. It can't be remixed. It can't be shared without that exclusive permission, which the artist is incentivized to hold onto because, otherwise, they're not going to be able to make more works.

What we're seeing from the artists selling the tokens and from people finding value in buying those tokens, even if it doesn't mean they get the copyright along with it, is that those works can be part of the creative conversation. Those works can be shared virally. They can create communities around them without needing to be restrictive in order to enforce some sort of economic benefit. And these are the sort of things that the standardized Creative Commons licenses are designed to allow, where people are getting their economic needs met in some other ways. They can share some of the exclusive rights that they don't need. This is some of the things that the NFT technologies are allowing people to do by sharing things like experiences, access, merchandise, things that are not related to just the right to copy and distribute the work.

They don't have to make that tradeoff. They don't have to love copyright. They can get benefits some other way. And I do see the challenges many
others have brought up as being education that people
don't know, both on the creator side, what it is that
they're giving away, they really need to be educated,
especially the platforms can help with that by making
it easy to understand, and the purchasers do not
always know what they're getting. We've seen many
notable examples of people confusing the ownership of
a token for ownership of exclusive rights in the work.

This isn't unique to NFTs. This has
happened in physical media and other digital media,
but with every new technological advancement and every
advancement in media, we need to continue making that
education because it's always been counterintuitive
and, with the technology being confusing and
complicated, even more so.

MS. IYER: Thank you.

And Professor Evans?

MS. EVANS: Hi, thanks. Two quick points.

One, the issues of persistence of the associated asset
with the non-fungible token and also determining the
appropriate rights-holder, which has come up several
times, but I align it a lot with some of my work
around orphan works and perhaps having a more
efficient means of connecting people and organizations
and companies who actually want to know who to reach
out to in order to determine the appropriate rights-holder for purposes of securing rights is a mess.

And as was mentioned earlier, I believe Vickie, I can think of countless projects, I think we all know them, early on, where, like, just trying to identify the minimal viable data, remember those projects. And the various stakeholders couldn't coalesce around a collaborative as opposed to a hypercompetitive model, even for the basic information. And so they were all fantastic ideas that never saw the light of day. I'm hoping that as this technology matures the inevitable realities of having some base layer of collaboration is essential in order to really achieve the promise of economics.

And that kind of leads me to also some thoughts around the issues of persistence when I think about notice and takedown, which is hugely problematic for all of these exchanges and, obviously, the persistence -- not only, obviously, because the token data, the transactional data, the metadata is on chain, but almost always, for various reasons, either the size of a file or the cost of gas, it's just prohibitive in many different ways to have the connected asset or experience somehow on chain.

But having persistence issues and the
inability to do notice and takedown effectively, that's inextricably linked to the economic benefits of exploitation over the duration of the copyright term. So, in both of those areas, there's promise, but some very practical and important considerations from a technology point of view in order to really realize the full benefits that come with 106 rights. And with that, I'll stop.

MS. IYER: Thank you.

And we're going to go Ashley, Jeff, Jordan, and then Shekinah. If I could ask you each to kind of keep comments to maybe one or two minutes as we're looking forward to turning it over to Neil for our next question after Shekinah. So Ashley?

MS. JOYCE: And this will be quick. I just wanted to raise something that Jeff mentioned about infringement. I mean, it is rampant and I just think, you know, while there are all these opportunities in the NFT space, sales happen very quickly, oftentimes before rights-holders are even aware, and so that's a big concern, even with regard to takedowns, you know, aside from the fact that buyers and sellers are often anonymous and then you have decentralized platforms or storage options for the assets and then you're not sure how to get them down. You know, there's also a
question, I think, as to whether or not NFT platforms are DMCA-compliant. I would argue many of them are not. They're not even eligible for safe harbor protection, and I think there needs to be pressure there to make sure that they are more favorable to rights-holders to remove infringing content and expeditiously. So I just want to raise that because I think the Web3 world actually poses more challenges with regard to DMCA takedowns than the Web2 world.

MS. IYER: Thank you.

And Jeff?

MR. SEDLIK: Thanks. I see many opportunities for my fellow artists with NFTs. I've seen especially during the bubble some of my peers made significant additional revenue. One photographer whose works sell for between $500 and $1,000 for a beautiful fine art tangible print sold an NFT for $14,000. It's the most she's ever received for any of her works. And those sorts of opportunities have leveled out somewhat, but as the market matures and changes and evolves, there will be additional opportunities, and I'm excited about that because NFTs are another way that artists can monetize their works and be able to support themselves and afford to create new works.
Some of the challenges I mentioned in my opening statement, I won't really repeat them here, but I'm particularly concerned with the impact on non-exclusive licenses or the impact of an exclusive license. So, when you issue a license for an NFT, that's typically a non-exclusive license, except with respect to the creation of the NFT itself. But it can conflict with past licenses that are not NFT licenses, territorially, time-based licenses, media-based licenses, et cetera. It can also prevent or eliminate future opportunities for issuing exclusive licenses if there's this ongoing NFT licensing in the background.

I also see that -- I've seen NFTs being used, I suppose you would call it commercially or in a commercial manner, so somebody buys an NFT and they choose to post a blog post about it or what have you and display the NFT on a blog, and there's either monetization on that blog through advertising that goes to the NFT owner or there's third-party monetization with web ads or ads on the platform that are generating revenue for somebody based on the display and distribution and reproduction of that NFT.

Lastly, I don't think that many artists fully understand the impact of the clause in the NFT platform contracts in which they indemnify and hold
harmless the NFT platform from third-party liability, which would include liability for infringement that might occur within their work. In other words, let's say they've comprised their work of multiple works or they picture something like a person's likeness, there can be significant liability there that the artist might not be aware of.

MS. IYER: Thank you.

Jordan?

MR. BROMLEY: Real quick, I would like to echo Vickie's comment that at least on the music side, that the artist -- I mean, if there does become some sort of kind of centralized model for this, which I would kind of also caution against due to the fact that music is used in so many ways in NFT drops, but if there is a way to create a bucket into which a certain type of music fits into a model, the creator deserves a large share of that.

What we've found on a practical basis with our NFT drops in music is that the name of the artist backing the NFT was what drove those sales. We also found that the artist's fan base weren't the ones buying NFTs. It was mainly those that did really well in crypto over that period of time that were looking for something else to resell and gamble on.
So it's an entirely different market of people that are using the artist's name as another table to play at in their gambling spree. We'll see if, you know, the next round -- you know, it's cooled off substantially since the crypto crash, but we'll see in the next round if more fans come online in the NFT purchasing in music. But, for now, we've had a bit of a valley in terms of kind of catching up and having great panels like these and deciding, you know, how we are more organized and efficient in the process when it heats up again.

MS. IYER: Thank you.

Shekinah?

MS. APEDO: Yeah, no. Yeah, I'll definitely make this quick. I mean, I would say one of the new challenges, and I think most will agree, you know, is the new crop of AI collaborative artists, you know, that are popping up with an NFT. I think there's certainly a lack of education and understanding for those artists, you know, when it comes to copyright law, but as technology is moving very quickly, often, you know, outpacing the law, like, I would hope that, you know, the law would evolve and there would be some type of balance with the potential of AI being used as a tool with creating art.
MS. IYER: Thank you. And before I turn to Neil, I want to ask just a very quick follow-up question to Jeremy. In 30 seconds or less, if you could expand on your point on crowd funding and that train of potential use. We can also come back to it because he may be frozen.

So then, Neil, I'll go ahead and turn the next question over to you.

MR. GRAHAM: Thanks, Jenee, and hello, everybody. Our next question is Question 2, what opportunities and challenges do you see arising from the use of NFTs in connection with a rights-holder's ability to monetize and manage their copyright ownership share or royalties? There's obviously some overlap with the previous question, but this question has a slightly narrower or sharper focus on resale royalties as well as royalty returns where the NFT purchaser has a fractional interest in the income stream generated by a work, such as a sound recording copyright.

If you could keep your answers short if possible because we have a few more questions before this session ends at 1:30, although we can certainly go a few minutes after that. Any takers? Jordan?

MR. BROMLEY: So I feel like I'm talking a
lot. Look, I think there, you know, it's a beautiful ability for music artists to have another royalty stream. You know, we are well used to having royalties. Music artists have royalties in a variety of licenses. And I want to also underscore ticketing. This is the one way that you can control a secondary market and receive the benefit of resales of your tickets. So I think that is a major opportunity that has not been realized, and I'd love to see the progression of that in the future. Thank you.

MR. GRAHAM: Thank you.

I saw Yayoi next and then Vickie and then Ashley.

MS. SHIONOIRI: Thanks for that. So, as I mentioned in my intro, smart contracts can allow for resale royalties automatically encoded. Sellers on marketplaces can code a designated fee into each resale sale, most cases being between 5 to 10 percent of the purchase price for digital art NFTs. But there was a brief moment in the winter of 2022 where some marketplaces temporarily defaulted to waiving the royalty fee or even made it optional. But, thankfully, with creator push-back, it seems like the default for marketplaces is to keep the idea of royalty rights alive.
However, royalty payments are enforceable on a marketplace level, and it is always possible to take the negotiation of a transaction off chain. So I think it's interesting to think about interoperability among marketplaces for the enforcement of royalty rights going forward. It's a goal that a lot of people in Web3 communities have, but at least as I see it, it hasn't yet become practically widespread.

To touch very briefly on fractional NFTs, of course, it is possible to split ERC-721 into multiple fractions in the form of ERC-20 tokens based on instructions provided by the NFT owner. From a digital art NFT perspective, it lowers the barrier to entry if you only need a relatively smaller amount of crypto to buy an NFT. But a fractional share ownership of copyright in an underlying image may not be super helpful in the long run, depending upon what the ultimate NFT owner wants to do. Thank you.

MR. GRAHAM: Thank you.

Vickie?

MS. NAUMAN: I think the opportunity here is really to scale in light of artist-centric models to the mass market. The user experience with Web3 is pretty clunky. With a lot of these, you know, get a MetaMask if you can, open it, you know, put crypto in
it, you know, attach that to a platform, buy some
things, shut your wallet because of security reasons,
manage multiple wallets. It's really, really not mass
market yet. I think it will get there in the same way
that in the early 2000s a lot of the things that we
were operating with were also very clunky, but I think
all of these things will evolve.

But I think, if we think about if you're an
independent artist and you own everything, you own
your sound recording, you write a hundred percent of
your songs, you're in a great position to use Web3
tools. You can build a community. You can get
investment of your songs. You can fractionalize your
rights. You can collect directly from your fans. But
most popular artists with really big dedicated fan
bases, they are signed to either a label or a
publisher or both, and that's where we get into a
tangle. Traditional rights-holders of labels and
publishers have always kind of led these business
licensing conversations on behalf of their artists or
their repertoire, and now we're kind of flipping this
equation where many rights-holders are finding
themselves needing to follow their artists, and the
artists want to do X and the artists want to do Y.

Some artists want to even take their
writer's share and their performer's share and fractionalize the pieces that they own, leaving the publisher's share and the label's share intact but take their own and do whatever they want with it, and this is challenging the industry in an enormous way because, you know, there's usually a collaborative process around the creation and release of an album, but then that's done, and then the artists are really on their own for touring, and the label and the publishers are on their own from licensing.

But it's forcing. It's forcing these issues, it's forcing a more collaborative discussion, and it's also forcing labels and publishers to think about not only how they could set precedents in the market with potential licensees but how they set precedents internally with their artists and, you know, who should have the wallet. It challenges how the money flows, what metadata is being used, what is the share between label, publisher, and artist, and how is a resale split, and so I think these things are really, really active issues, and a lot of it is again borne out of these artist-centric versus catalog-centric models. Thank you.

MR. GRAHAM: Thank you.

Ashley, I think you were next.
MS. JOYCE: You know, Vickie had mentioned this with kind of getting all the rights-holders at the table together at the same time. I just want to reiterate that, but I also want to mention, I mean, there are over 250 just music NFT platforms out there, and so, when it comes down to fractionalized rights and kind of, you know, distribution of copyright interests, one question I just want to raise is what happens when the copyright outlives the platform, and so I think there's this misconception generally that NFT platforms can kind of handle royalty distributions ongoing in perpetuity.

But I think there really needs to be a conversation about what happens if that platform goes under, you know, what's going to happen to the revenue streams down onward, and how do you memorialize that perhaps in a legal document that can accompany the NFT to clarify those rights with everyone at the table, you know, post-NFT platform life cycle?

MR. GRAHAM: Thank you.

I think Steve was next and then Jeff.

MR. KRAUSE: Sure. Thanks. So I think one thing that's important to note is that not all marketplaces are the same, right? I mean, you know, Dapper addresses the secondary royalty issue by
creating official marketplaces where it serves as the IP licensee, the NFT creator, and the primary NFT seller, along with having the secondary marketplace. All that makes it far easier for us to ensure that creator royalties from secondary sales are paid, right? For example, with NFL ALL DAY, Dapper designates creator royalties to be automatically split and paid to wallets controlled by Dapper, the NFL, the NFL Players Association, right?

So we encourage -- other folks have spoken about the technical hurdles involved with ensuring that secondary marketplaces recognize and pay secondary royalties, so I don't have to go into that, but what I would say is that we encourage creators to publicly support those marketplaces that honor those payments and that that hopefully will continue.

MR. GRAHAM: Thank you.

I believe Professor Evans's hand was up a little earlier, so we'll go to her and then to Jeff.

MS. EVANS: Thanks. A quick point about this cross-platform issue regarding the payment of royalties, and this may also be accurate on other smart contracts' platforms, but at least ERC-2981's interesting royalties standard that as long as the platform honors it, there's the ability to track by
address as opposed by platforms. I haven't heard a lot of discussion about it recently. I need to even spend some more time with it, but I remember writing some short pieces of a standardized way to retrieve royalty payment information for NFTs, and that would enable universal support for royalty payments across platforms, and so let's keep that in the conversation as well. Thank you.

MR. GRAHAM: Great. Thank you very much.

Jeff?

MR. SADLIK: Yeah, thank you. So, with respect to visual works, where there's no statutory framework for distribution of royalties, you know, we're talking about artist-centric models here, but, really, who would get those royalties? Is it the artist or is it the copyright owner? During the bubble, there were moneyed interests going around and buying out entire collections of visual works from artists. I know this because I manage the licensing for deceased visual artists' works, and a number of artists sold their life's work or their families or their estates sold the life's work of the artist for substantial sums, but are they mentioned? Are they connected to any NFT offering by the new copyright owner is the question, and, certainly, in the EU,
there's always a connection to the copyright owner with respect to royalties, but here in the U.S. not so much. And just quickly, I'm also very concerned about fractional interests in NFTs and what might develop in terms of those being deemed securities and what complications arise from that in terms of liabilities.

MR. GRAHAM: Excellent. Thank you for those answers. I'm going to turn the floor back over to Jenee.

MS. IYER: Thank you, Neil. Thank you, everyone. And being mindful that we have some, you know, key questions we're still hoping to get to, but we're also running towards time, so I hope everyone will indulge us a little bit if we run over. We'll try and be respectful of the time that you have, but we'd also like to make sure we can ask some of these questions that we have remaining.

So, because we've already touched on licensing a little bit, our third question as far as what types of licensing practices that are occurring in the context of NFTs and if there are any best practices emerging, I'd like to see if we can kind of keep about five minutes of discussion on those questions. We have touched upon it in various contexts but that we'll have some time to still touch
on the fourth and fifth questions that we're hoping to
pose. So if anybody would like to give us a quick
rundown of some of the licensing practices that are
occurring, any best practices. Again, I know we've
already kind of touched on it a little bit today, but
there are also some persons who have a keen interest
in this area I know, so, Steve?

MR. KRAUSE: Yeah, I mean, at the risk of
beating that dead horse I suppose, right? This is
stuff that we take very seriously at Dapper and that
we have been -- not only do we have our own licensing
models and clear end-user license agreements on our
sites, but we are working actively on sort of an open
source model that will allow for anyone to be able to
leverage, mix and match -- if you're a creator, to mix
and match the rights you want to give that reflects
the type of things that NFTs are truly unique for,
things like voting rights, content rights, experience
rights, all of the unique elements that make NFTs so
cool, quite frankly, and a mechanism and a badging
system that will allow end users to see what rights
they are going to get before they buy. This is
absolutely critical to the success of the industry,
and we want to do our part to make sure that happens.

MS. IYER: Thank you.
And, Vickie?

MS. NAUMAN: Yeah, I think, you know, I have talked a lot about this, so like Steve, I don't want to beat a dead horse here, but I do think that what we are all doing in this space right now is we're looking at existing models of what we have now is an NFT, a personal copy, you know, that something is going from, you know, a marketplace into a person's personal collection. Therefore, is it kind of like a download? Maybe it is. Maybe it's like a high-priced download, but then I think, you know, we have to further challenge these things and say maybe that's the norm and maybe that's the structure, but I don't think the split between the publishers and labels for a download model is necessarily right for the NFT.

Same thing, background music, is music that's being heard in the background, if it's a truly decentralized world and we can't really track. We're back to P-to-P, which is how we started this whole thing in 1999 with Napster, and we have a P-to-P system and decentralized system and we can't track it. How would a public performance right be implicated? And so synchronization is a huge part of this if there's audiovisual, and so I think that there are things that we can look at, norms and laws around the
world, but we have to modify them enough so that the shares and the representative split between label, publishing, and then the artist him or herself, I think that we can morph some of these models, but we can look and draw upon some existing licensing structures.

MS. IYER: Thank you.
Kat?

MS. WALSH: The main thing that I see happening as a best practice first of all is just IP terms being included in NFT licenses at all, which was not as prevalent in the beginning and I think is now widely understood as something that should be done as a best practice. Otherwise, it's left ambiguous.

The second thing is standardized license terms so that both the creators and the re-users don't need to become familiarized with a new set of terms every time they want to use a different platform.

The third thing I see is standardized licenses that already exist. At Creative Commons, we've already seen people trying to integrate CC licensing into their NFT platforms that give creators a standardized set of choices that already work with other sets of content.

And, finally, we've also seen the use of our
public domain tools. There was a popular hashtag, CC0Summer, for the people who do want to release all of their rights, but the ease of reuse, the not locking in to any particular platform I think has been a good development.

MS. IYER: Thank you.

And lastly on this question, Ashley?

MS. JOYCE: Sure. I just want to, you know, note that NFTs are very unique in what they are. They're unique in and of themselves. Each one offers a different experience, and so, while we do have, you know, traditional licensing schemes, I would just argue that, again, each NFT is different and the rights-holders at issue have to be involved, and they are the ones who can best determine which licensing scheme should apply. Again, I think sync is up there, performance, you know, with how the music is used within an NFT sale, so I just want to mention, though, that every single one is unique, and that should be negotiated directly with the rights-holders.

MS. IYER: Thank you. And I am going to turn over to Neil, and I see, Jeff, your hand is raised, so I'll be opening it up in the next question.

MR. SADLIK: Were you calling on me?

MS. IYER: I'm going to turn it over to Neil
for the next question. If you'd like to be the first on the next question, and then you could finish your thought to this question.

    Neil?

MR. GRAHAM: Okay. Thank you. This has already been touched on by a number of speakers, but we'd appreciate your further thoughts. There have been reports of members of the public purchasing NFTs with the mistaken belief that they would then be able to do things that the copyright owner controls. Do you think the public is aware of the copyright rights that they do or do not obtain to the underlying work when they purchase an NFT? What are some ways that you would suggest to make this clear? I guess we're going to Jeff first. Is that okay?

    MR. SADLIK: I'll take it. So one concern would be that -- well, first of all, I don't think either the buyers or the sellers fully understand the rights that they're offering or granting or that they're receiving, and I mentioned that in my opening statement. I think that the platforms and perhaps the Copyright Office and industry, each industry, could do a better job of educating the public on those topics, and I think that oftentimes the buyer really believes that they've got some broad rights to make use of the
work.

Oh, I will add that the platforms, I believe, in my experience through the PLUS Coalition, are somewhat resistant to the standardization of licensing terms because they really view their particular licensing packages as proprietary and as giving them a market advantage in the way that they approach both the people who are offering NFTs and the people who are buying them, and that's what we've seen so far.

MR. GRAHAM: Okay. Thank you.

I think Shekinah was next.

MS. APEDO: Yeah, and I noticed Jeff hit on a lot of the points that I was going make, so, yeah, you know, I would say that, yeah, right now, anyone -- well, not anyone, but most people within the NFT, like, realm or consumer realm, you know, certainly think if they buy the NFT they own the NFT, and, you know, I think it more so -- I wouldn’t more so rely on the platforms because they are, you know, for-profit businesses, but I think it's the communication of the creators, you know, to communicate, like, clear communication of what the creators own, you know, if it's a base model, you know, if there's a character, like, do you own the traits?
You know, just really breaking down, like, and talk about logos and what's separate, the collection's name, and so I think it's the creators of those that are selling that clear communication certainly needs to happen. Would love to see whether it's the Copyright Office or just bar associations, you know, around the U.S., you know, do creator workshops, you know, pro bono, you know, workshops for artists, you know, to educate on how to simply communicate some of this stuff.

I mean, obviously, you want them to hire us lawyers, but I, you know, want to continue to see the empowerment of artists and just their understanding on just the simple -- I won't say simple, but just the plain or the main definitions of what copyright law is and what licensing, you know, is and how they should be communicating that to those, you know, that they're selling to.

MR. GRAHAM: Okay. Thank you.

Yayoi?

MS. SHIONOIRI: Yes, consumer literacy in the art world and in the digital art NFT community has improved, but, of course, it can always be better. In the fine art world, a collector generally knows that there's a difference between ownership of a piece of
artwork as physical property on the one hand and the copyright underlying that artwork on the other, namely that just because a collector has physical ownership of an artwork, the collector doesn't also automatically receive the copyright unless it's been explicitly transferred or granted.

In the digital art NFT world, as others have mentioned in this panel and in other panels, purchasers of NFTs do not often go to the relevant Ts and Cs where license language may exist, whether on the marketplace or through a project-specific site, to figure out what rights they receive upon purchase of an NFT. In both the fine art world and the digital art NFT world, though, one of the distinctions that I think we need to make is that certain transfers of rights require a meeting of the minds, i.e. evidenced by some sort of mutual agreement, and certain transfers require a clear articulation by the creator, i.e. the transferor, and for licenses it's the latter.

And it's super exciting to see in this space CC0 being utilized by many community projects as well as hearing from Steve that Dapper Labs is attempting to create open source licensing templates to help standardize all of that. In any case, continued discussion and analysis as the ecosystem continues to
change is definitely needed. Plus one to what Shekinah said. The education of stakeholders, including creators and collectors, is critical, and I do think the Copyright Office can play a big role in awareness-raising within the community. Thank you.

MR. GRAHAM: Thank you.

I'm going to go with Steve next and then Professor Evans and then Umair and then Kat. I'm doing the best I can. I'm not sure I get everyone correctly, but that's the order.

MR. KRAUSE: Thank you. So one of the things that's interesting about your question, Neil, is that when you walk into a store, a toy store, and buy an Olaf plush toy from the move "Frozen," right, no one wonders if they -- everybody thinks they own the plush toy, right? There's no question, though, in their minds can they take a picture of Olaf, put it on a T-shirt and sell it. Nobody thinks that by going and buying the Olaf plush toy at the store gives them that right. It's a fascinating conversation about the difference between physical goods and digital goods, right? And so I say that just to sort of highlight the context of the question, which conceptually is so clear to people in the physical world.

The way that we at Dapper have been thinking
about this in terms of solving for the problem of education and making sure that buyers know what it is they're getting is the badging concept that I've mentioned before, but like the MPAA does, when you go to see a movie, there isn't a government regulation that says that this is the thing that has to go on it, but the MPAA themselves have said, look, we are going to solve for this problem where we don't want underage kids going and seeing an inappropriate film.

In the same vein, we're going to create this badging mechanism similar to what Creative Commons has been doing for years, right, which by attaching it on or next to the NFT basically tells any potential buyer all the way through its life cycle this thing has a license, and when they hover over it, it shows them what the rights are, so there's hopefully greater clarity on that point.

MR. GRAHAM: Great. Thank you.

Professor Evans?

MS. EVANS: We talk a lot about creators, collectors, investors/speculators needing robust education, and the professor in me also believes in consequences, and so I believe a robust education initiative and certainly the funding for that. I also teach administrative law, so that's a whole other
separate topic, but the minting and marketplace platforms, I spent quite a bit of time going over probably 10 or 15 different platforms, and their own language, it was clear that they did not go to a lawyer, and if they did, the lawyer had no idea about copyright, trademark, patents, the language or the absence thereof.

The only thing worse than the absence of language was the poorly worded language that showed that they didn't know what they were doing, so there's a lot of education to absolutely go around. And final point, it makes me think about just in the entire ecosystem it's kind of like as entrepreneurs moving fast, breaking things, apologizing later. Some of that comes from the ethos and spirit of the crypto ecosystem, the cyber punk manifesto, the attempt to operate outside of legal systems, but what we know from heavily regulated industry just because people wish to operate outside doesn't make all of the regulations and the existing legal framework go away. And some things work well. Some things need to be tweaked. Some things may need a sui generis approach, but it will require education and consequences.

MR. GRAHAM: Great. Thank you.

The next speaker I have is Umair and then
Kat and then George. If you could keep your remarks on the brief side because we're 10 minutes past our official closing time but interested to hear what you have to say. Umair?

MS. IYER: Umair had to drop away.

MR. GRAHAM: Okay. Then let's go to Kat.

MS. WALSH: Sure. I'm going to echo everybody else's point about education, which then the Copyright Office could also play a role in this that's important. I'm going to counter Steve's point about nobody being confused when they buy a Frozen doll and expecting to own the rights. I did content moderation at Wikipedia for several years, and I can guarantee you that there are many things about like where people were actually confused because of the non-intuitiveness.

Similarly, at CC, we run remix contests for public domain material quite often, and quite often we have to reject a lot of entries because people don't understand the difference between availability to the public and public domain, so I just want to emphasize that this is not a new thing in this space. I think a lot of the language about unique ownership gives people a lot of confusion about that. That needs to be countered with education, and one thing I think
that can help is a lot of standardized terms and
standardized language for referring to those terms so
that people have a more easy way of understanding what
it is exactly that they're getting.

MR. GRAHAM: Thank you.

George?

MR. JOHNSON: Yeah, I just wanted to say
about a year ago I met an art dealer from New York,
and she said she would never ever touch an NFT, that
it's a whole different thing, and someone explained it
to her NFTs were more like trading baseball cards, and
that's great, but, right now, I would never ever buy
an NFT because there's so much scam going on with
crypto, you know, you got Sam Bankman fraud, that guy.
There's so many crypto places out there, there's so
many NFT places out there that seem like they're just
stealing copyrights.

And so there's no security there, there's no
real foundation, and I think what the guy from Dapper
there was saying is great, Steve, and to have some
kind of badge, that there is some kind of security,
but, you know, just make sure that the Copyright
Office protects the individual creators. Make sure we
can charge whatever we want for a song, for an
artwork, that the powers that be, the three labels or
lawyers, aren't just taking over this space, which they have for streaming. They've destroyed the music business with streaming even though they claim they've saved it. No, they haven't.

So, as a creator, like, you know, I love this panel here. I came here to just really get an education, but I don't want to create NFTs. It sounds like a real pain in the ass, so, you know, let's simplify it and let's make it fun for us because, you know, when you create, you want to have some fun. You want to do something. You want to say, hey, I'm going to have some success here with what I'm doing. I'm going to make some money on it.

Right now, I don't see any way of making any money, and it's going to be 10, 20 years before there's some standardized way to making money, so let's make it easy for us and let's make it fun for us creators and let's just not take it over so five companies can run it, you know, like they do for streaming, for Spotify, Google, Amazon. You know, they own it, so let's not have that happen, and let's make it easy for creators. Let's make it standardized and the Copyright Office protect our exclusive rights, and that's what I'd like to see. Otherwise, you know, it's just going to be a bunch of people scamming each
other, and we got to stop that if we want to make it a real thing, and that's it.

MR. GRAHAM: Thank you for your comments.
Jenee, over to you.

MS. IYER: Thank you, and thank you all for hanging with us a little bit as we've gone over time. We appreciate that. I do want to ask one final question, and that is, do NFTs present unique opportunities or challenges for artists and creators for underrepresented groups? So do you want to have the opportunity to discuss it? And, again, thank you for hanging with us as we've run over time a little bit. We appreciate that. Yayoi?

MS. SHIONOIRI: Yeah, unfortunately, particularly at the height of the bubbly craze in 2020 and 2021, the digital art NFT world had already started to replicate many of the skewed gender and non-diverse aspects of the traditional art world. In terms of the supply side, for example, on Nifty Gateway across tracking almost two years worth of sales up to November 2021, Art Tactic noted that male-presenting artists accounted for 77 percent of tracked sales while female-presenting artists accounted for just 16 percent.

This is unfortunately replicated on the
demand side too. For example, in PFP projects like the Crypto Punks, there's been some data that shows that female-presenting avatars were sold for less than male-presenting ones and darker-skinned avatars were sold for less than lighter-skinned ones.

Unfortunately, this data is even replicated in projects that are attempting to be more conscious of these gender and diversity biases, but in a true utopic idea of decent Web3, I think we all believe and wish that text should be more gender-blind, allow for more diversity and allow for more equality and equity.

We've seen some incredible artists like female-presenting artists like Sarah Meyohas, Sarah Friend, and Rachel Rossin, as well as someone like FEWOCiOUS, who identifies as a transgender young person, use this technology to self-actualize and express their creativity and in doing so reap economic benefits for themselves and in turn promote the useful arts, which is, yes, again, the point of the Copyright Act, and the question really becomes how to effect that and how to effect that continually, and, again, I think one of the most important things that we can do is help increase the pipeline on the supply side, which is really about providing access to and education about this technology. Thank you.
MS. IYER: Thank you.

Professor Evans?

MS. EVANS: Yeah, I'm really excited about this topic, as you know, given a lot of my work, and full disclosure, I'm an investor in Black NFT Art, not just in the common sense but literally the educational pipeline that is really supporting black creatives in particular to mint their first NFT, all of the education that we've talked about. I think of new crypto art galleries emerging like One Off to help onboard black artists and curate their artwork into new digital first exhibitions.

I know personally folks who not only have given new life to their existing work but maybe just working in the digital space and actually making quite a bit of money, and the reason is not just because of the art itself and the potential for secondary market or downstream micro-payments as a result of smart contracts but also the unique aspects from a tax perspective of the token itself that is taxed as a capital asset and enjoying gains and losses if they're being paid in ETH, for example.

That is a game changer because generational wealth is never built on incomes, it's taxed at a higher rate, but on capital assets, assets that are
out there working so that others can create. So the idea of being a creative but also owning something that has the potential to go up as well as down in terms of capital gains and losses is very empowering. Obviously, you have to pay attention to the attendant risks, but that is an important aspect particularly for systemically marginalized populations.

MS. IYER: So, Vickie, I'm going to ask you to make the last comment, and then if you could keep your comments to one minute, and, Professor Evans, I couldn't tell if your video froze or if you were able to -- you're concluded. Okay. It's not frozen. All right. A few people have frozen or dropped away, so I just wanted to verify. So, Vickie, if you could keep your comments to one minute or under, and then we'll go ahead and close out the session, and, again, thank you all for sticking through as we ran a little over time today.

MS. NAUMAN: Yeah, I think that with Web3 and decentralized technologies, one of the core differences between the economy that we have now and this is that, you know, everything that we do now requires scale, and so, if you are a musical artist and your music is either not being promoted by your label or you got dropped by your label or you're going
independent and you're not getting hundreds of
millions of streams, you will probably not make hardly
any money, but in Web3, if you have a niche community,
if you have loyal fans, you can bring them in, and
niches, tribes, and small communities are really set
to monetize in a completely different way because it's
around engagement.

And so I think there can be opportunities
for artists who have not been able to find their way,
whether they're part of an underrepresented group or
they just didn't get the right model or placement
inside of these services, but I think there's the
potential there for people of all different sizes and
scales to be able to monetize their art if they have
loyal fans.

MS. IYER: Thank you very much, and thank
you again to all of our panelists for participating in
today's session. For those of you who will be joining
the next session, we invite you to take a brief break.
We will return at 2:15 p.m. Eastern Standard Time with
our next panel on the same site, and as a general
reminder, the web form sign-up to participate during
open mic will also close at 2:15. So thank you all
again, and enjoy the rest of your afternoon.

(Whereupon, a brief recess was taken.)
MR. WELKOWITZ: All right. Welcome back.

Thank you for coming today. My name is David Welkowitz. I'm an attorney advisor at the U.S. Copyright Office in the Office of General Counsel. I'm joined today by my colleague, Andrew Moore, who is an attorney advisor with the USPTO. We look forward to a very robust discussion as we've had in the last couple of panels. In this Session 3, we're going to be discussing NFTs and IP management and enforcement, which will focus on NFT-related challenges and opportunities regarding IP portfolio management and copyright enforcement.

Before we start, just a few Zoom housekeeping points to remember. We are recording this session today. The recording will be available on the Copyright Office's website on the NFT study landing page or it will be available through the landing page, and the USPTO's NFT study page will direct you to that site. The transcription function is activated as well. If you're a panelist for another panel, say Session 4 or from a previous panel, but you're not a panelist for this particular session, we ask that you please keep your camera off and your microphone off, but we ask that the panelists for this session, and I see that all already have done that,
have their cameras on and when you're speaking have
your microphone on.

I just want to remind people that we have a
session to follow this, and at the end of that
session, there will be an open mic session. I hope
that those of you who wanted to be heard in the open
mic session have signed up. Hopefully, we'll be able
to give everyone a chance to speak. I hope you will
understand that if we are overwhelmed with requests we
may not be able to have everybody in the open mic
session that wants to speak. Please also remember
that the deadline for written comments to be submitted
is February 3 for this docket.

We've informed the participants of the
format of this session. As in the previous sessions,
the format of this session will start with a brief
introduction of each of the participants and a brief
statement by each participant. We ask that the brief
statements be limited to three minutes, which we as
the moderators will be watching. After these
introductions, we will have a moderated discussion to
facilitate the conversation among the participants.
The moderator questions, which the panelists have
received in advance, are intended only as prompts for
that discussion, and we're sorry if we don't get to
all of the questions. We may not simply have the time
for all of that.

So, without further ado, let's begin with
the introductions in the order that they are in the
agenda. Emilio Cazares, would you please begin?

MR. CAZARES: Yes, and thank you for the
time. Thank you, everyone, for joining this excellent
discussion. My name is Emilio Cazares. I am a former
in-house counsel for SuperRare Labs, the company
behind the Super dial and the Super network. I am
here today participating as an independent contributor
to the SuperRare dial and as a member of the ecosystem
and a former representative of SuperRare Labs.

I come to you as an engineer and as an NFT-
focused licensing attorney. My specialization is in
the area of trying to marry the label semantics of the
NFT space onto the protocol-enabled functionality of
the NFT space, which I think is a great, great, great
opportunity for incredible advancements in the rights
of creators and the rights of collectors and curators
and the publishers. It's a pleasure to be here.

Please excuse my baby crying in the background, and
thank you all for your time.

MR. WELKOWITZ: Thank you.

Next is Richard James Burgess. I think
you're still muted, Mr. Burgess. Sorry, you're still muted. There you go.

MR. BURGESS: Hello. Thank you to the Copyright Office for doing this study. We really appreciate it. So I'm the President and CEO of the American Association of Independent Music, A2IM, and the majority of my career I've spent as a musician, producer, and songwriter, so I've lived my life based on copyright law. I have a keen interest in the value of copyrights with relation to creators. I'm here in my capacity with A2IM. We represent hundreds of independent record labels who are interested in preserving and improving the value of their copyrights being returned to them and their artists.

Independent labels and their artist partners are interested in NFTs because they hold the promise to build a deeper connection with fans, develop new offerings like exclusive rights to listen to a new release sooner or to access exclusive recorded music by attending a concert. NFTs hold the potential for artists with niche fan bases to make a living without having to achieve massive scale. The models of the past 20 years have not worked well for the vast majority of music creators, and the hope is that these new models will reverse that trend.
The current centralized platforms that allow for digital consumption of music, namely the market dominant streaming platforms, go to great lengths to minimize payments for music and devalue our product. If NFTs were to do nothing but add a new pathway for the value of music to return to 1990s levels, it would be a very good thing for recorded music creators, the labels that support them, and, indeed, our entire culture.

One of the biggest challenges stemming from NFTs is the separation of the NFT itself from the digital asset that can infringe the copyright of one of our members. As a result, if an NFT listing is taken down, it doesn't remove the asset itself, and once an asset or access to it is sold, we have a new problem, which is that there's no readily available mechanism to ensure that a seller of an NFT relinquishes access to the digital asset.

For rights-holders, the same limitations with the DMCA are in play as with the rest of the internet ecosystem. If you send a notice, the specific listing will come down at least on one popular NFT marketplace, but there's nothing to stop the same seller from minting a new NFT immediately tied to the same infringing content, and when a
listing is taken down, it doesn't remove the
infringing content or kill the link to access that
content.

The majority of independent labels are
unable to effectively protect their copyrights using
the notice and takedown system as it exists. One
suggestion is that NFT marketplaces should implement
policies to suspend or terminate the accounts of
repeat listers of NFTs tied to infringing content.

Thank you for the opportunity to participate in this
roundtable.

MR. WELKOWITZ: Thank you.

Next up, Althea Erickson.

MS. ERICKSON: Hi there. My name's Althea Erickson, and I lead the Sol Center for Liberated Work, which is a research advocacy and policy program at the Center for Cultural Innovation. We're focused on expanding social and economic protections for arts workers and those working in the broader gig economy, and our work is really deeply rooted in the Center for Cultural Innovation's mission to support individuals in the arts, whether they're artists, culture bearers, creative entrepreneurs, to realize greater self-determination.

Across our various programs, we support over
16,000 individuals in the arts and are deeply familiar with the struggles that they face every day to secure the protections that they need. In particular, we serve many folks from marginalized communities, including BIPOC folks, disabled folks and immigrants, and, basically, we follow our community where they go, which is why when we started seeing lots of black and brown artists moving into the blockchain space, we started building our own expertise in this area.

So we recently worked with a firm, Goodsnik Goodsnik & Keker, to explore some of the legal challenges that artists face on the blockchain. Not surprisingly, intellectual property issues came up a lot. After all, right, artists' economic security really depends on their ability to own and control their IP rights. High level, I think we found a few things, first that artists really need better tools to understand and influence the ways that NFT marketplace terms impact their IP rights, including the ability to assess the terms, determine licenses, as well as choose or change platforms. Second, there's significant legal uncertainty regarding the ways that copyright law and contract law overlap on the blockchain, which creates copyright management and enforcement challenges for creators and
inconsistencies in enforcement.

Also, as Richard mentioned and is the case off the blockchain, small creators need education, technical assistance to help them protect and manage their IP on the blockchain in particular, I think, given high barriers to informed entry in the market and lack of trusted advisors, especially within marginalized communities.

And then lastly, you know, while the blockchain offers ways for small creators to support themselves via direct payments and resale royalties, which came up a lot in the last panel, we also worry about overdependence on too few platforms that could potentially use their market power to strip artists of ownership, rights to reproduce, trademark, et cetera.

So those are some of the things that are coming up for the artists that we speak with and support, and we really thank you for the opportunity to join this roundtable today. Thanks.

MR. WELKOWITZ: Thank you.

Next, Sarah Odenkirk.

MS. ODENKIRK: Hi. Thank you very much to the Copyright Office for hosting these roundtable conversations and to all the moderators for your work organizing these sessions. I'm very honored to be in
conversation with my colleagues here today. As you just mentioned, David, my name is Sarah Conley Odenkirk, and I've been in private practice for almost three decades in the area of fine art and visual art in public spaces. My comments here today are my own and do not necessarily reflect the opinion of my firm or any clients.

I am a partner at the law firm of Cowan DeBaets Abrahams & Sheppard and co-chair of the Art Law and NFT Practice Group. Additionally, I'm an adjunct professor of art law at the University of Southern California Gould School of Law, and over the last couple of years, I've frequently presented and written about the nexus of art and NFTs. Most recently, I did contribute to the letter submitted on behalf of the ABA's section of intellectual property in response to the Patent and Trademark Office and Copyright Office's notice of inquiry initiating this joint study regarding issues of IP law and policy associated with NFTs.

Initially, I became interested in blockchain and NFTs in 2017 as a tool for conceptual artists to package and sell work and quickly saw the potential for greater rights management opportunities and an avenue for better ensuring creator rights through
blockchain mechanisms. In May of 2021, I collaborated with artist Nancy Baker Cahill on a complex project called Contract Killers in which we in part explore the deficiencies of the unfortunately termed smart contract underlying NFTs and the ways in which the current NFT structure fails to provide a reliable means for enforcing artist rights, among other things.

Given the inability two years ago to implement a mechanism for requiring mutual agreement, our solution was to attach a clearly articulated set of writings to the NFT containing a carrot rather than a stick inviting people to voluntarily comply in exchange for a reward of an additional NFT. This project has continued to have legs as one of the original projects exploring these contractual and enforcement challenges largely because, despite advances in technology and the realization that real contracts must be better integrated, the issues raised have not yet been fully resolved.

While contracting around current laws' deficiencies works, without having a consistent and current foundation in the copyright law, we are all at a disadvantage in serving our clients and growing these cutting-edge opportunities. In general, it's important to recognize that NFTs are really packaging
and can represent objects, assets, utilities, access, or identity. Each of these uses needs to be treated differently as their individual purpose and function will determine which set of laws most appropriately applies and how remedies will be meted out.

I believe some of the answers lie in revisiting copyright law and some lie in developing market-specific trade associations and the development of clear standards and protocols to be implemented at the marketplace level. I look forward to addressing the questions posed for today and discussing ways in which revising and supplementing copyright law might best serve the evolving marketplace and new innovations that blockchain technology has made possible. Thank you.

MR. WELKOWITZ: Thank you.

Edward Lee?

MR. LEE: Thank you, David, and thank you to all of the attendees. I'm Ed Lee, a law professor from Chicago Kent College of Law. I'm also the founder of the website NOUNFT.com, where I track the latest developments in NFTs, especially from the perspective of IP. Now I believe NFTs are being used today as a new form of Decentralized Intellectual Property, or DIP for short, analogous to the movement
in DEFI, or Decentralized Finance. I explain my theory at much greater length in my book Creators Take Control and a law review article, both of which are coming out at the end of March of this year.

Now, before today's roundtable discussion, I'd like to emphasize three quick points related to the enforcement of IP. First, NFTs are rapidly developing. They can change in a blink of an eye, and we've already seen this from 2021 to today. The best policy may be to wait and study it more, to collect more data, including on DMCA notice and takedowns, as well as the so-called use cases that businesses are making with NFTs, which seem to be growing by the day.

The second point is that the current market for NFTs is fairly skeptical of big brands. The most successful NFT producers are either Web3 startups or individual artists. The big brands that have had success in Web3, the NBA, Anheuser Busch, and Nike, have partnered with or outright acquired Web3 startups. Now this poses a challenge for big businesses seeking to adopt NFTs, but it also serves at least for the time being as a natural defense to infringement due to, well, the lack of popularity of NFTs coming from big brands.

Third, when we think of IP enforcement, I
think it's crucial to understand the clear divide between copyright and trademark. Trademark owners risk losing their rights by not leasing their trademarks, including in the metaverse. There's a trial going on right now in the Southern District of New York involving Hermes International against Mason Rothschild which reflects this part of the law. By contrast, copyright owners don't have to police their works, something that the scholar Tim Wu called tolerated use, and I think that's important for understanding enforcement that the two different areas of law may propel the IP owner in different directions.

Finally, there's, I think, a philosophical divide that is worth noting between what I call 20th century enforcement through cease-and-desist letters, notice and takedown, and litigation versus 21st century enforcement in Web3, which favors decentralization and greater permissiveness in sharing digital content, so-called JPEGs, because they don't substitute for the NFTs which are authenticated on blockchain. Just to use one simple example, there's more value in owning the authentic Doodles NFT versus any knockoff of the Doodles NFT. That authenticity of NFTs is in itself a form of enforcement of
intellectual property. And with that, I will turn it back over to our moderator.

MR. WELKOWITZ: Thank you.

Next, Jean-Marc Deltorn.

MR. DELTORN: Thank you so much, David, and thanks to the Copyright Office for initiating this discussion and to the panelists for sharing their insight and experience, as well as to the participants and the audience for their time. My name is Jean-Marc Deltorn. In the past 20 years, I've held a variety of positions in Europe, in European institutions dealing with intellectual property and now a member of the European Observatory on Emerging Technology as part of the European Union Intellectual Property Office and a professor of law and digital technologies at CEIPI, which is the Center for International Intellectual Property Studies at the University of Strasbourg in France.

So CEIPI's a leading institution in Europe for education and research in IP, and as such, CEIPI's in direct contact with a range of stakeholders in the EU in the field of NFT, including artists and producers. So today I'd like to give a slight international perspective on what's happening in Europe with a brief outline of the regulatory
landscape in the EU in relation to NFT enforcement at least in its ongoing development.

So one of the points I'd like to highlight relates first to the regulation of platforms, and various issues raised in the previous panels today have led to questions to question the role of platforms in relation to the minting and distribution of protected works and to consider the responsibility in light of existing copyright-related regulations, which applies also in Europe, of course. One point that is being investigated in the EU is whether it would be possible to regulate these NFT platforms in a manner similar or inspired by the more traditional content-sharing platforms that are being currently subject to the EU copyright Digital Single Market, DSM directive as we call it.

And in particular, these directives are in Article 17 that subjects online content sharing service providers to specific obligations with regard to copyright works shared on these platforms, and this provision aims to ensure that copyright-infringing content is not uploaded essentially, which includes, for example, positive obligation to seek authorization from the rights-holder for any such upload, so if such obligations are not complied with, the providers could
be held liable for copyright infringement. The question, of course, is whether Article 17 of this DSM directive does apply or not to NFT resale platform, and this is actually a subject of discussion.

So that's one of the points I'd like to address today, but, actually, we are inching towards actually some more of the NFT platforms in this particular - (technical interference) trend and any redress for NFT producers and owners is the reason to introduce proposals for an EU regulation on marketed crypto assets, and while the current regulation does not specifically cover NFTs, which may be part of a future dedicated law, legal uncertainties remain of a large collection of or series of NFTs issued, which could potentially fall under this text.

And if that's so, NFTs choosing large batch may be considered fungible, in which case they will receive the same treatment as any other cryptocurrencies, which means that EU entities wishing to put an NFT collection or even a fractional NFT up for sale will fall under the umbrella of crypto asset service providers and will need to receive express authorization from the EU before offering up that service to the public. So this is, of course, an interesting legislative process ongoing, but we expect
it to go to Parliament in April this year, so these
are the points I'd like to address today. Thank you.

MR. WELKOWITZ: Thank you.

Next, Kayvan Ghaffer.

MR. GHAFFERI: Hi, everyone. My name is
Kayvan Ghaffer. I'm general counsel of MakersPlace,
a curated NFT marketplace for digital art.
MakersPlace was launched in 2018, and it utilizes
block chain technology to facilitate the sale of
authentic original digital artwork and sharing rarity
and ownership for both creators and collectors. In
addition to some of our peers on this call,
MakersPlace has helped kind of catapult digital art
and NFTs on the global stage with the historic sale of
Beeple's "Everydays: The First 5000 Days" for $69.3
million in partnership with Christie's Auction House
in March of 2021.

Our mission is simple: to enable a vibrant
future for digital creativity. There are a variety of
copyright-related issues in the NFT space that are
important to consider, and I applaud the Copyright
Office and those who are participating on this panel
for taking steps to learn more about this space and
technology, but like my peers before me, I come to you
as an NFT attorney, an art collector, and a supporter
of all creators. I believe NFTs can indeed unlock incredible advancements in rights management and remove roadblocks from creators around the world to sell their work on a global stage, and I firmly believe that any discussion will require education on what aspect of the NFT are we discussing. Is it the smart contract? The underlying visual asset? What protocol and how is that protocol being implicated, and who is responsible for any of these issues? Is it the artist minting the NFT? Is it the marketplace or protocol that's providing a service to the artist to mint the NFT, or is it the collector or someone else? We have to start thinking about these issues in these buckets in order to make informed decisions on how to really think about copyright issues or IP issues more broadly in the NFT space, and thank you.

MR. WELKOWITZ: Thank you.

Next, we have Dan Schmerin.

MR. SCHMERIN: Thanks. I'm Dan Schmerin, co-founder of Metaversal. To achieve our mission of building the world's most impactful community in Web3, we found and fund Web3 native intellectual property. Web3 is all about community. It's also enabling shared decentralized ownership in ways that were not
feasible in years past. There's really three points that I want to highlight.

First, the need for simplicity and greater ease of use. Many of these panels are dominated by attorneys, they're not dominated by independent creators, and so the question before us is whether, with your leadership, we can take the existing framework and adapt 21st century improvements to streamline and simplify various provisions so they actually help rather than hinder innovation, community-building, and decentralized ownership.

And the answer isn't just greater education for the masses to understand a very complex system of copyright and trademark protection that's been cobbled together over the decades. This is an opportunity to fundamentally rethink how creators are best served and whether traditional copyright protections are actually protecting the people, those who don't necessarily have the resources that legacy corporations and large IP or content owners may enjoy.

Second point is about the need for growing collaboration, and the CCO and Creative Commons license is a perfect example of this trend. Some of you have already touched on this, that the future not only lies with independent creators but really lies
with the communities that form around them. Said
differently, community is the currency of power. We
have an affinity for CCO because it jump-starts
nameability by actively, not just passively, inviting
the creation of derivative works, and I think we can
all acknowledge that there is a fundamental shift
taking place around how IP is being developed. It's
less about me as an individual and more about the
presentation of an idea or some initial content that
forms the basis for something greater altogether.
And the final piece is around continuing to
foster innovation. I'll highlight some of the time
that we've spent building a media 3 license for a
project which is soon to be released called Omega
Runner. The reason I highlight that is that our team
has gone to great lengths to develop an innovative
license associated with this project that we believe
is more robust than most of the licenses in this
space.
Its purpose, to be clear, is not simply to
gate-keep. It is really designed to ensure that
holders understand exactly what they are licensed to
use, and if we ever want to integrate their work into
our main storyline, we would license it from them.
Think about that. It keeps their work safe and we
believe ultimately should become best practice across the NFT ecosystem. I'm happy to dive into that further as we go on. Thanks.

MR. WELKOWITZ: Thank you.

Next, Josh Hurvitz, and, Josh, if you have the ability to turn on your camera, that would be helpful.

MR. HURVITZ: David, thanks so much for recognizing me. I'm here on behalf of an organization that has another speaker, so feel free to pass me over.

MR. WELKOWITZ: Oh, okay. Well, that's fine. Then we'll move on to Gina Moon.

MS. MOON: Perfect timing right when I was starting to cough, but I'm Gina Moon. I'm the general counsel of OpenSea, one of the leading NFT explorers and Web3 marketplaces. Thank you for having us here. We are very happy to be sharing some of the opportunities we see in the space with the copyright regime in NFTs. At OpenSea, we've seen NFTs enable artists and creators to better connect with their fans and supporters, and we've also seen the potential of NFTs to modernize everything from ticket sales to tracking of DMV vehicle registrations.

But we also recognize that the promise of
NFTs won't be fully realized or durable if existing NFT enthusiasts or new entrants to the space can't tell the difference between authentic items or fraudulent items, so that's why we've invested very heavily in building out our operations and systems to not only manage the DMCA process from IP rights-holders but also to proactively combat copy mints and fakes in this space, and so, while the DMCA process has been very key for a platform like OpenSea and our ability to help rights-holders protect their IP, the transparent immutable nature of the blockchain has definitely created an opportunity for more innovation in IP management and also buyer empowerment, which a lot of the speakers before have mentioned.

So, for example, not only does a blockchain provide sort of a content ID system that isn't tied to just one proprietary platform for rights-holders, it also provides access and information for buyers so they themselves can make informed decisions regarding authenticity and provenance of NFTs they'd like to own. As another example, NFT metadata provides a really interesting surface area that can be used to not only standardize IP licenses but also make sure there's more clarity in what rights someone might or might not be receiving when they're purchasing a
particular NFT.

So very happy to be here today and definitely love to help the Copyright Office in any way we can, as well as have conversations with panelists on how we can help develop new ideas, how we can leverage NFTs to tackle some of these age-old IP challenges and also encourage more democratization of information available through blockchain technology.

Thank you.

MR. WELKOWITZ: Thank you.

Next, Cesar Fishman.

MR. FISHMAN: Hi, everyone. Great to see you all. I'll try to not be repetitive of what many of you have already said that I fully agree with. I'm the head of business affairs for Pex. We're a content identification and content management company. Since we were founded in 2014, we've seen incredible growth in the virtual creator economy, both which has come with a lot of good and some bad.

I think that there in the world of NFTs and NFT marketplaces there are big opportunities to unlock incredible value, which is, you know, many of the things that have already been talked about during these introductions, but, you know, while the scale of the current big NFT marketplaces is staggering,
there's tens of thousands of unique sellers representing many tens of millions of dollars in transactions monthly, and, obviously, that's also come with massive spam and fraud and copyright infringement which both affects obviously buyers who are spending considerable sums sometimes on NFTs but also the trustworthiness of platforms or marketplaces.

At Pex, we've heard from a number of NFT marketplaces about how our technology can help ensure that an NFT being sold or traded on their platform is the real thing. Obviously, there's a huge incentive for platforms to make sure that the real thing gets traded on their networks, and, really, the biggest opportunity that we see is one of aligned interests between these marketplaces who need to ensure consumers that they can deliver uniqueness, which is sought after in an NFT, and the rights-holders who have a meaningful track record with voluntary initiatives that curb infringement, so on and so forth. So I'll pass it on to the next person, and I'm excited to dive into these topics and into this discussion. Thanks.

MR. WELKOWITZ: Thank you.

And, finally, Susan Chertkof.

MS. CHERTKOF: Hi, thank you. On behalf of
the RIAA, we thank the Copyright Office and the U.S. Patent and Trademark Office for their work on this study. The RIAA is the trade organization that supports and promotes the creative and commercial vitality of music labels in the United States. The music industry invests in, uses, and drives emerging technologies, such as NFT-enabled projects that help fans discover and engage with music and the artist behind that music. NFTs present new opportunities that can benefit everyone, including recording artists, labels, and music fans. For example, as already mentioned, they provide new revenue streams for music creators and provide fan-driven digital collectibles and fan loyalty experiences.

However, NFTs, like other emerging technologies, pose a number of IP challenges. These include education and communication challenges. The education challenges have been talked about a lot in the prior panels. NFT sellers and marketplaces must ensure that they know and communicate to buyers adequate information about which IP rights are conveyed and which are reserved when offering NFTs and any associated digital assets.

There are rights acquisition challenges. Sellers must ensure that they acquire all IP rights
necessary to sell and market the assets associated with an NFT. In the music space, that includes licenses for sound recordings and underlying musical compositions and any attendant work. If there are references to the recording artist, trademark authorizations and publicity rights may also be necessary.

Last but not least, there's enforcement challenges, which is the subject of this panel. NFT sellers have infringed copyrights in our members' sound recordings and cover art. They've infringed the trademarks in band names and logos and made unauthorized use of the names and likenesses of major label recording artists. Some of the specific enforcement challenges include the following: NFT ecosystems are both decentralized and multijurisdictional. It is difficult to identify an NFT seller because their identity is often shielded. The NFT and the associated digital asset are frequently stored separately. Many NFT platforms do not offer adequate tools for rights-holders to identify and notice infringements at scale, and even when platforms do respond to takedown notices, the takedown is typically limited to the NFT, not the underlying digital asset, and like in other online
settings, takedown rarely means stay down.

To address these concerns, we recommend that NFT marketplaces implement the following voluntary practices: Implement reasonable know-your-customer diligence, including disclosure of the seller; use effective content recognition solutions to proactively identify and take mitigating action against potentially infringing audio or audiovisual-based NFTs; and develop and adopt notice and takedown procedures for NFTs associated with infringing digital assets, such as trusted notifier policies, the ability to accept notices at scale, and practices designed so that repeat infringers cannot offer NFTs under a different account.

In spite of all these challenges, we do not see a present need for changes in copyright law that are unique to NFTs. We do, however, reiterate the legal deficiencies that we have identified previously regarding online infringement and the DMCA. Thank you.

MR. WELKOWITZ: Thank you, and thank all of you for introducing yourselves. As we move to the questions, I just want to remind you to please use the Raise Hand feature so that we can recognize you when you'd like to speak. We'll start with the first
question. Are there any notable IP management opportunities or challenges uniquely associated with NFTs, in particular, in the copyright space? Sarah?

Sarah Odenkirk.

MS. ODENKIRK: Thank you. So I have two points to make here, one regarding rights management and the other regarding identity and privacy concerns, and as a number of people both in this panel and in previous panels have already talked about, there is a tremendous need to clarify what rights travel with ownership versus what rights are contractually granted, and this must be addressed from both a management and an enforcement perspective.

Some of this comes with consumer education, which we've talked about a lot already, and some of this comes with clearer language within the copyright law, and then, with regard to NFTs, we have this unique ability to create a clear set of rights that travel with the NFT itself by associating specific articulations to the NFT. At some point, the technology will evolve to allow for more of this to happen fully on chain. That's not really my realm, but however this is standardized, it's probably best handled at least in part through marketplace players in conjunction with the Copyright Office providing
some additional guidance, if not clarification, within the law itself.

The second issue that I just want to touch on briefly has to do with identity and privacy concerns. Issues of anonymity and pseudonymity are certainly problematic in terms of enforcement in the NFT space, but they offer an opportunity to revisit this issue both from a traditional registration standpoint as well as within the Web3 ecosystem. Doing so will certainly help balance First Amendment and privacy issues that are critical considerations in the NFT space as well, and one tech solution that might offer some opportunities could be the tokenizing of identities. There are already a number of businesses within the space that are providing this type of service, and I think taking a look at these mechanisms might be very helpful.

Establishing a standard method for controlling access to true identities through tokenized identities in appropriate circumstances, probably subject to court order, could prove much more efficient than taking various platforms, publishers, or manufacturers to court for the sole purpose of unmasking an infringer's identity. This could also change the dynamic between rights-holders and
distribution platforms of any sort where the
distribution platforms are no longer viewed as an
obstacle between the rights-holders and their ability
to seek justice.

This is not to say that distribution
platforms won't still potentially be liable for ways
in which they contribute to infringement, but it would
eliminate one substantial obstacle in pursuing
litigation.

MR. WELKOWITZ: Thank you.

Ed Lee?

MR. LEE: Yes, I'm going to just focus on
the opportunity, and Dan has already mentioned a part
of this thread in terms of collaboration. I have
conducted an empirical study of the top 25 NFT
projects. I'll be posting a pre-print draft shortly.
The substantial majority of the top 25 NFT projects
have adopted a license that grants commercial rights
to the buyers of the NFTs. Two of them adopt the CCO
license that Dan was referring to, and that signals
how these so-called Web3 startups are viewing the NFT
as a way to engage with their owners of the NFTs in a
community and in collaboration.

And I characterize this as decentralized
collaboration. By owning the NFT, you are granted a
commercial license to make derivative works of let's say a Doodles character. They have a limited commercial license for their project, so that is a clear opportunity that the leading startups are adopting, and, you know, we'll have to see how it pans out, but I think it's an exciting innovative approach.

MR. WELKOWITZ: Thank you.

All right. Althea Erickson?

MS. ERICKSON: Yeah, I just want to reiterate, I think, some of what Dan was saying around how, you know, most of the folks that we represent are not IP lawyers or representatives of, you know, trade associations. Our groups are independent artists, and they face really high barriers to informed entry into the NFT markets and opportunities on the blockchain to avoid being scammed, experiencing flawed smart contracts, misunderstandings about their IP rights or ownerships or other pitfalls.

And I think, in our experience, creators really face a pretty steep learning curve to understanding the technology that's behind NFTs and often lack access to reliable support from those who do, especially in BIPOC and other marginalized communities, so we see a big need at the beginning from a management perspective for technical assistance
providers to access, like, templates and roadmaps, legal advice, I think, more consistent and clearer tools in order to ease entry into the technology itself.

I think, secondly, we see a lot of creatives struggling to identify NFT platforms that align with their priorities for managing their own intellectual property. So most creatives, I think, are drawn to NFTs, as we've talked about a lot, as a means for greater self-determination both in terms of economic opportunities and control over the channels of viewing and interacting with their artwork, but we see that terms of service for NFT platforms vary widely and creatives are choosing platforms based on a bunch of different factors, right, cost, user basis, collector basis, license terms, smart contract capabilities, but each platform really binds creatives to different license terms and conditions that potentially apply in perpetuity to the digital assets that are tied to an NFT minted on their platform, and that creates challenges.

We think really given the high stakes tied to these decisions that policymakers might consider requiring marketplaces to make clear and transparent disclosures regarding the various factors that
creatives are considering when choosing a platform, also supporting the creation of a set of standard license agreements, and I know that came up a lot in the last panel discussion, or even setting minimum required standards that are really focused on protecting creative rights. Thanks.

MR. WELKOWITZ: Thank you.

Emilio Cazares?

MR. CAZARES: Yes, thank you. Briefly on the IP management possibilities. Now, obviously, NFT technology allows there to be pretty clear mapping between ownership and assets in terms of there's a token ID that links a referenceable asset and it has an identifiable owner whether or not that owner is anonymous or not, but, clearly, there's an advantage to starting to get in the practice at least from a corporate perspective in indexing IP on a distributed ledger like Ethereum to the extent that you want the outside world to understand the licensing activity around your own portfolio.

So, like, in the traditional world of paper-based licensing, there could be a lot of unknown value that hides between the off-chain world whereas, in an on-chain environment, to the extent that standards can develop that support protocol-enabled forms of
licensing, the outside world, who could be speculators, who could be investors, who could be shareholders in a company, can have greater access to data surrounding the engagement with the underlying IP, which I think changes the game in terms of understanding how to value intellectual property.

In the NFT space currently, you see a remarkable trend towards artist tendencies to over-include their rights, in my opinion, where they attach commercial rights to things, and then you just kind of have these lofty rights that exist in the world, but there's no real way of understanding the feedback of, like, how those rights were used and how those rights actually map onto the artist's intent around granting that initial license.

So the real opportunity here which, I think, is a combination of clever lawyering amongst artists and communities to create sensible licensing arrangements but also standardization in how to take specific codified terms that are embedded into NFT metadata and understanding how to exhaust those rights in a way that creates a state change in the blockchain so that the world can understand and see that there's a feedback mechanism between the license itself and the licensing activity, which I think will not only do
wonders in terms of discovery and understanding which content is the best content depending on who you are, but it also, I think, has a radical potential to create new strategies around IP monetization, IP acquisition, IP valuation.

Especially, and this is kind of like an end state where I imagine tribunals and courts and jurisdictions around the world who can participate in attesting to the ownership of IP, so, for example, if the Copyright Office could support some type of mapping between registrations and on-chain assets. Once you begin to see the governments actually play a role in identifying or authenticating IP or, for example, in the case of patents, identifying, you know, when a patent has received a judgment against it that renders it invalid, these types of state changes eventually can act as data inputs that inform the quality or title of that IP.

So, for example, when a company's wanting to sell an entire portfolio, that is a transaction that, you know, could be a few clicks of a button rather than having to hire, you know, a hundred attorneys to do corporate due diligence to evaluate the state of a given portfolio. So just to conclude that point, I think there's a lot of potential in just the
management of intellectual property and understanding its use in the real world, but it does require a big standardization effort amongst IP holders and particularly I think marketplaces and creators in the NFT space now.

MR. WELKOWITZ: Thank you.

Susan Chertkof?

MS. CHERTKOF: Thank you. So, on the challenges side, we just wanted to highlight some questions about whether smart contracts are actually robust enough to deal with all the different rights issues that need to be addressed in any sort of copyright licensing context. There's territorial issues. In the music space, you have sometimes multiple owners that need to be addressed. There's different rights that may or may not be licensed or reserved. There's termination issues. And so we just question at least at present whether a smart contract can really cover all those distinct issues.

MR. WELKOWITZ: Thank you.

Gina Moon?

MS. MOON: Yeah, I think to that point, the way the technology is currently, it's in a nascent stage where this is why we want to see more standardization in terms of metadata information
that's shared is, in the short term, people could
leverage information you put in the metadata. It
would be kind of simple and easy to understand, sort
of like a nutrition label of, like, what rights or
what restrictions there might be with a particular
NFT, and that standardization could be leveraged by
marketplaces like OpenSea, by rights-holders, and also
understood by users potentially.

Separately one opportunity I'm going to
state, it's very obvious to everyone on the panel is
just the NFTs provide a way that we have a
pseudonymous but persistent identification system for
infringing content, so one thing at OpenSea is we'll
receive a DMCA request, you know, the rights-holder
has gone to the effort to put it together. We go to
the effort to identify sort of the token ID where that
item is.

There definitely could be more collaboration
across industry, across this ecosystem so that we
could leverage the fact that there is this sort of
unified ID system because, currently, my understanding
is a lot of rights-holders have to go to different
platforms one by one when that is something that was
very required in Web2 because there wasn't this
identification system. Now, on Web3, there's
definitely work, I think, that the Copyright Office and the industry can do together to make it a little bit more efficient once someone does the work to identify an infringing piece of work that needs to come down.

MR. WELKOWITZ: Thank you.

Cesar Fishman?

MR. FISHMAN: Thanks. Yeah, I wanted to respond quickly to, I guess, Gina's comments, then Emilio's comments. I think that, you know, there is -- you know, certainly, this is a nascent technology, but there are certainly many legacy technologies that could be used and leveraged to make sure that the uniqueness of an NFT of a person who's using OpenSea or any other marketplace can be certain that what they're buying is unique and actual.

I know that there's, you know, these anonymous identifiers for the NFT itself, but, you know, you can quite easily mint various NFTs that all represent the same piece of art, right, and each one of those minted NFTs would have a different identifier, and a legacy technology like fingerprinting or crawling or any of these things could help mitigate that across all of these platforms.
So even though, yes, it is a nascent technology and then eventually, as time progresses, maybe this can be done on chain in different ways, you know, I think that there are voluntary initiatives that many marketplaces can take to make sure that there isn't a misrepresentation, not that OpenSea or any other marketplace is unwilling or doesn't want to do these things, but more so that, you know, it can be done and it can actually be done with technology that's existed for at least a decade.

So, you know, there is a lot to learn by these nascent technologies of, you know, what has been done past across many other platforms on how to keep IP protected, not that, you know, it's ever done perfectly well or to the happiness of any rights-holder, but, you know, quite well enough where it would make a difference, so anyway, yeah.

MR. WELKOWITZ: Thank you.

Dan Schmerin?

MR. SCHMERIN: Just two points to follow up. So first, I like Gina's analogy to nutrition labels. We talk internally about cigarette warning labels, right, that it should be clear and robust that buyers are informed in easy eighth-grade-style verbiage as opposed to, you know, beset by legalese that even five
lawyers in a single room can't agree on what the meaning is and it has to be adjudicated in courts. That is sub-optimal.

And so I come back to the importance of us recognizing that this is a generational shift now bringing individuals to the fore as opposed to corporations, and so we need to cater to that level of understanding and make this process as seamless as it can be. So I applaud initiatives like the one we saw just a few months ago from a16z around there can't be evil licenses. They aren't perfect, but it is a demonstration of what we heard earlier today, the need for greater standardization and to create a simple framework that everyone can then put their heads around as opposed to greater and greater customization.

MR. WELKOWITZ: Thanks.

Kayvan Ghafferi?

MR. GHAFFERI: Thank you, and this is more comments or follow-ups on some of the comments made previously from others on this panel, and I think one overarching theme that's important to recognize with these conversations is how new and nascent this technology is and how, you know, the industry's maturing at a pretty rapid rate and trying to
understand, digest, marinate all these new innovations and navigate, you know.

But, to respond to some comments regarding, like, territorial issues and whether metadata can or should be updated, I think one thing that's important to recognize is, you know, with a smart contract, there are capabilities at present where different rights-holders or different creators can actually be listed as the creator of the particular NFT. And so, if you had, for example, a music NFT, you could actually list out each of those individuals on the NFT and allocate their royalty stream based on any pre-existing licensing agreements, and that's something that's pretty special about the smart contract technology.

Moreover, in terms of monitoring or managing for purposes of, like, IP monitoring, one beautiful thing about, you know, blockchains is that they are public ledgers, and they are easily scanable and analyzable in order to understand who the purchaser is even if there's an anonymous wallet at the front.

You know, RIAA is very familiar with certain technologies like Markmonitor, which helps them with piracy and other aspects of their ecosystem, and I believe that there are similar companies like
Chainalysis who do an incredible amount of work identifying wallets and trying to identify the identities behind those wallets, and so I think, in many ways, while this is a nascent technology, the publicness of the information contained on blockchains provides a unique opportunity for these third-party companies to help with IP management in similar ways. And to, you know, Ms. Moon's point about more collaboration between marketplaces, I fully agree with that. I think, given the nascent industry, it is important to have collaboration, but one thing I would just caution the industry as a whole is, you know, we can't just label everything an infringement because a copyright holder claimed that that is an infringement and therefore tag it everywhere, right? You know, the whole DMCA process, which is a pretty robust process, allows and affords the creator of the allegedly copyrighted work to challenge and file a DMCA counter notice, and I think that process needs to play out before it becomes an ecosystem-wide flagging of a particular NFT for potential infringement purposes. And so those are just things that I kind of wanted to respond to on the panel. Thank you. MR. WELKOWITZ: Thank you. And, Gina Moon, I'm going to give you the
last word on this question.

MS. MOON: I thought you were going to be like you don't get to go another time, so I'm going to skip you, which would have been fair, but the one other thing I would say is we've noticed from the platform perspective is there's sort of two worlds that you're dealing with when you're dealing with rights-holder management. One are the people that are on chain already, so, like, very well-known Web3 brands that are on chain that have their NFTs on chain in a why from an IP protection standpoint when you start thinking about fingerprinting or starting to think about trying to detect duplicates and likely counterfeits.

That's a much easier world in a way to work with because they're on chain and it's easier for fans and supporters to identify what's authentic by looking at the provenance that's provided on the blockchain. It's a different sort of regime when you're dealing with rights-holders that may not be on chain yet, right, so they have to send you sort of reference sets or information separately from the blockchain for you as a platform to kind of try to do proactive scanning and finding if there's other duplicates that might be counterfeits.
It's kind of an obvious point, but that's just something we've definitely seen at OpenSea, but a lot of times when we're talking to rights-holders, one of our answers is, if you actually want to make sure people know what's authentic and what is from your brand or your label or, you know, your work, being on blockchain is actually a good way to do it because you can be the definitive source of that item, and you could show, like, you know, Gina's NFTs, I'm actually on chain. People know that that's an authentic address that belongs to that collection, and that can do a lot for user understanding of, like, what's authentic or not. It becomes more challenging when counterfeits are on the blockchain, but the rights-holder isn't there yet.

MR. WELKOWITZ: Thank you.
I'm going to turn it over to Andrew Moore now for the next question.

MR. MOORE: Hi, everyone, and thank you. So our next question is a two-part question, and I know some of you spoke already on the copyright enforcement challenges in your opening statements, but to the extent that you haven't spoke on that or have anything responsive to the other parts of the question, we'd love to hear that. So the next question is, what
copyright enforcement challenges or opportunities are associated with the rise of NFTs? And are existing counterfeit remedies appropriate or adequate for addressing concerns related to NFTs? Mr. Burgess?

MR. BURGESS: One of the biggest challenges is the separation of the NFT itself and the digital asset that can infringe the copyright of one of our members, and so, if an NFT listing is taken down, I know this is probably obvious to everyone on the panel, but it doesn't remove the asset itself, and once an asset or access to it's sold, you know, we've got this other problem, which is that there's no readily available mechanism to ensure that the seller of an NFT relinquishes access to the digital asset.

And, you know, this is an area, you know, where we really need some education, as many people have said on the various different panels. I mean, you know, the true identity of the seller is another issue, and, you know, we think there are real enforcement opportunities in the NFT space because the end user of an NFT marketplace, the buyers, have the same incentives as the rights-holders to make sure the NFTs they buy are unique, but, by definition, infringing NFTs cannot be unique.

So the major NFT marketplaces should follow
the lead of other platforms and take steps like developing trusted notifier programs, building out mechanisms for rights-holders to search marketplaces at scale, and technologies that work pre-upload or pre-listing to cut off NFTs tied to works identified by rights-holders.

MR. MOORE: Thank you.

Mr. Fishman?

MR. FISHMAN: Yeah. So, you know, we've advocated for this in the past and we've said that generally the DMCA needs to be amended and to put teeth into section 512(I) of the DMCA so that platform's liability is tethered -- to tether platform's liability shield in adopting, facilitating, or at least not hindering the use of standard technical measures or technical measures generally. I think these need to include web crawling and fingerprinting technology.

I also think that the current system of sending notices in the NFT marketplace space is probably even less effective than it is regarding other types of platforms for a few reasons. The marketplaces that do respond to DMCA notices, they do so only by taking down a listing that references an infringing work, and then there's no proactive steps
taken to prevent another listing referencing the same infringing work or even the same infringing digital file.

Second, at this stage, there really isn't a Facebook, YouTube, or TikTok of the NFT marketplace world, so market shares and the consumer value propositions of each one are still evolving, so a bad-acting NFT minter or lister can simply move, you know, from outlet to outlet, which, you know, kind of requires there to be broad cooperation between at least all of the major players as they start emerging.

And then a third reason is that once an NFT is sold and access to the underlying infringing digital asset changes hands, there is insufficient protections in place to prevent the new owner of the NFT from making use of the digital asset in another infringing context, so this all kind of like folds into itself and multiplies.

You know, I was really interested listening to the last panel, especially at the close, where I think it was Professor Evans who mentioned, you know, the capital asset value of NFTs and creating generational wealth, and I love that, and I hope that that does emerge, you know, from the technology, but I think that in order to facilitate that for artists,
order to facilitate that for creators, this needs to
be a world that is more closely monitored and
regulated and protected so that those artists can
benefit and not just get absolutely killed, you know,
the way that artists have been killed out for years
also.

MR. MOORE: Thank you.

Ms. Moon?

MS. MOON: Yeah, I think one of the points I have for, like, pre-upload or discussions around that is the way that not all marketplaces work, but in this ecosystem, I think we all know, like, a lot of users can just go interact directly and they deploy their own smart contracts, and the NFTs as well as the content associated with those NFTs through links is deployed separately from any NFT marketplace.

So there is sort of a question on how you would actually intervene in that way ahead of time because there won't be a singular platform that you would go to to say here's a reference set of infringing material. Don't allow upload for any of that material because there's many blockchains and the blockchains are vast.

A lot of times, the way that we think about it at OpenSea as well is not only are you doing a
traditional takedown procedure, but there's also, if nobody sees it, which is sort of more of the Google search approach as opposed to like a Facebook approach, if nobody sees it at all, there is harm still arguably that the content is up there, but no one is actually looking at it.

So there's other kind of enforcement mechanisms as well that I think you can do by sort of making sure the authentic pieces are up at top like Google search might do in this space that would be interesting to work with and again thinking about how you can go -- I think people are thinking about this root issue of where the content is actually getting uploaded to the blockchain or where it's being hosted and whether there are sort of solutions to get at it on that level as opposed to sort of downstream at a marketplace level or an explorer level where they're displaying content that's on the blockchain.

MR. MOORE: Thank you.

Mr. Cazares?

MR. CAZARES: Yes, echoing those points and, obviously, we're all probably familiar with the fact that, you know, there's redundancy in the way that these assets are stored, and a platform doesn't necessarily have any ability to prevent downstream
IPFS notes from emerging. In many ways, I think that people, would-be enforcers or rights-holders, I think, definitely need to be cautious in the approach of just like let's take everything down. I mean, at SuperRare, the DMCA complaints that I primarily deal with are very -- let's just say from an infringer perspective always like you don't really know. It's a question mark. You know that you have to comply with the DMCA, of course, and things have to be taken down, but there's always that fair use argument. There's always like a high quality reason why this artist minted the content in the first place, which obviously is a platform we're agnostic to, but that being said, there's a lot of rights-holders that are like overzealous in the willingness to shut everything down, which I think runs against the value proposition of NFTs in the first place in terms of having a permanent referenceable set of IP.

So I would caution against any type of, like, regulatory positioning that motivated rights-holders to be able to expedite takedowns across the whole ecosystem, and I think that generally, based on my experience as a DMCA agent in this space, that the takedown doesn't do anything. You know, like, it's a cosmetic gesture to stay in formal compliance with the
DMCA, but at the very end, anyone familiar with the protocol can move these assets and can still sell and trade and transfer and sell them on another marketplace, and a DMCA notice kind of just acts as a warning, hey, sell your infringing asset now because they're coming for you.

So there's kind of like this inconsistent reality in what the DMCA is supposed to do and what it actually results in in the NFT space, and it's awkward and incongruent, and I would say that regulators ought to consider disclosure regimes as preferable to takedown regimes, so marketplaces like SuperRare, for example, would perhaps not be required to take down and restrict access to any IPFS notes and instead be required to make disclosures about whether or not IP infringement allegations have been made against a particular piece and perhaps limit that piece's ability to be transferred through a UI.

But dealing with the reality that if it's truly like a non-custodial smart contract ecosystem is that there wouldn't be anything that a platform could do to actually restrict that transfer, so maybe a disclosure regime is preferable to a takedown regime just because a takedown regime, I think, in the end state is just fighting with the physics of the
blockchain and it's going to result in high legal
costs and incongruent outcomes for both creators and
collectors and rights-holders.

MR. MOORE: Thank you.

Ms. Odenkirk?

MS. ODENKIRK: Just to tag on a little bit
to what Emilio was just saying, I think that it would
be helpful for the law to have a little bit more
guidance that doesn't require that we get to a
takedown regime and that there are some additional
guardrails there that make it clear, for instance, you
know, what rights transfer with the actual sale of the
NFT. So, for instance, in previous panels, a couple
of my colleagues have referenced Section 109 of the
copyright law, which addresses exceptions to the
exclusive right of display belonging to the copyright
owner.

The exceptions as they're currently written
fail to provide adequate guidance both on the
blockchain as well as, you know, within the internet
technology realm as well, and so clarifying the way in
which 109 principles apply to current technological
abilities to display and transmit content would be a
much-needed foundation onto which we could layer more
nuanced contractual agreements, so, for instance, this
could have a meaningful impact on the way in which museums acquire or show NFT artwork or how collectors manage their NFT collections before we even get to, you know, the question of lawsuits.

Another issue would be, and this is, like, I guess, jumping to some more procedural questions that we have to deal with, is that there are challenges that are not necessarily limited to copyright-related actions that have to do with civil procedure requirements, such as service of process, and this is something that we also find to be somewhat challenging in this space, again, referencing back to my earlier comments about anonymity.

Service of process through wallets is something that has been established as a legitimate way of notifying defendants of pending actions, and one of the earlier panelists mentioned something about companies that are very competent in figuring out the identities behind the wallets, but in the event that that's something that cannot be easily tracked down, there are these mechanisms that have been approved. The problem is there that it's based on local rules of civil procedure and not a federal standard, so it might be worth re-examining some of the federal procedures that would address alternative ways of
serving legal notices in cases where service is
otherwise challenging or impossible, but we do know
that there's a crypto wallet that's in use by the
target of legal action.

MR. MOORE: Thank you. And I do want to
note that we are running a little bit short on time,
so if we can keep our answers brief, that would be
appreciated. Mr. Schmerin, go next. Thank you.

MR. SCHMERIN: I would just say that, you
know, Section 504 of the Copyright Act is something
that ought to concern a lot of folks as they explore
the NFT ecosystem, this idea that the sale of an
infringing work, even if done by a completely innocent
actor who unknowingly violated somebody else's
copyright, makes that seller automatically liable for
actual damages that can range up to $30,000.

It again brings back the question of what's
the practicality given the proliferation of digital
assets and these digital works of content, so trying
to apply an old rule set to something when we were
living in a world of relative scarcity to now a
digital ecosystem which is a world of abundance, and
does that still jive?

MR. MOORE: Thanks.

Ms. Erickson?
MS. ERICKSON: Yeah, I just wanted to sort of reinforce the point I think that Sarah raised, which is, when it comes to enforcing your rights, you really need to manage them first and have means to do that, and so I think that, you know, the ability to affirmatively choose license standards and also make sure those licenses are binding over downstream resale of the works regardless of the marketplace is a particular challenge that comes up over and over again when we think about enforcement and also making sure that both the initial and secondary buyers are aware of and affirmatively agree to be bound by those terms.

And I know sometimes creatives put that information in the metadata or in the description box, but I think, over time, there's a lot of uncertainty about whether that will hold up over time and that then creates uncertainty for the creatives in terms of enforcement. Thanks.

MR. MOORE: Thanks.

Ms. Chertkof?

MS. CHERTKOF: Thanks. I just wanted to respond quickly to Emilio, who was pointing out, you know, weaknesses with the notice and takedown system, and, you know, everyone who's been in this space for any length of time knows there's no silver bullet to
enforcement, but just because there's work-arounds or
no enforcement mechanism is perfect doesn't mean that
it's not worth trying to enforce or worth making some
sort of inroads against unauthorized uses. That said,
we do look forward to working with others in this
space as the space grows to find effective tools and
remedies to deal with infringement.

MR. MOORE: Thanks. I see we have two folks
up who already spoke I think on this question. We do
only have 10 minutes left in this panel, so I'm going
to skip ahead to the next question, and if we have
extra time, I can come back to you on this. Does that
work for you guys? All right. I'm going to pass it
back over to David.

MR. WELKOWITZ: Thanks, Andrew.

In the interest of time, I'm going to skip
over to the last question, which is what international
trends governing NFTs may be applicable to U.S.
copyright law? So, if anyone would like to comment on
that, please feel free. Professor Lee?

MR. LEE: Well, you know, I think, as the
markets and businesses develop, you know, the
aspiration of many is that NFTs become mainstream.
One of the countries where NFT interest is growing is
China. Even though crypto is not permitted, NFTs are.
They've already had a case in which an NFT marketplace was held responsible for their user's copyright infringement, so I think one issue that, you know, arises is, to the extent that, you know, a marketplace like OpenSea just to use them as an example becomes international and the market expands, encompassing, you know, the EU and parts of Asia, which ISP safe harbor or rules, you know, should apply.

And I think that's, you know, potentially a huge issue that is lurking out there, and I think Jean-Marc was the one who was referring to the Article 17 of the EU DSM. I mean, if that applies, that would be adding a whole set of other requirements for ISPs. So I think that is one of the big lurking questions as the market expands and becomes global is how would a marketplace deal with that.

MR. WELKOWITZ: If I could just ask a follow-up question, Lee, for those who may not be familiar with the DSM, if you could just explain very briefly Article 17?

MR. LEE: Well, I think this is probably Jean-Marc's specialty. I don't know if I'm going to defer to him or not, but --

MR. DELTORN: Sure. Sorry. I'm just trying to raise my hand, right? Okay. That's cool. Thanks
a lot. Yeah, Article 17 is part of a broad range of regulations, about the single market directive, and, essentially, Article 17 subjects online content-sharing service providers to a range of obligations with regard to copyrighted works shared on their platforms, so it means that in particular but not exclusively the provision tries to ensure that copyright-infringing content basically doesn't pop up from the onset on the platform, and it means that, you know, it forces platforms to ensure that they seek authorization from the rights-holders for any upload and puts, of course, a lot of constraints if they don't so that they would be held liable for copyright infringement, as was said before.

And I think just to come back to the original question, what I sense from the EU, European perspective, is that there is a strong push to put more and more responsibility on platforms and at the moment we are trying to find analogy essentially between what has been done with this Article 17 when there's plenty of limitations there, it's not exactly easy to apply because, of course, there are exceptions in Europe in particular to copyright and it's not easy at all to automate these processes, but still there is a tendency to trying to see if there were the
analogies between this Article 17 of the Digital Single Market directive and whether it could apply to the NFT via the sale of platforms.

It's tempting to consider, but there's plenty of caveats in the too confusing practice, so it's still an open question, and it's not clear yet at least as far as I know whether a platform dedicated to the minting and sale of virtual assets in terms of NFTs would fall under the categories of the entities targeted by the DSM directive.

That being said, there's sort of a global, as I mentioned before, global push, so what we see is even though we don't have any related case, though, with the EU to support this particular interpretation linking Article 17 of the DSM directive with the responsibility of NFT platforms communicating copyright protected works to the public.

This appears in line with a global EU trend towards increased obligation on platforms, and what I would like to say is that it is further highlighted in the forthcoming EU Digital Service Act regulation because that particular regulation requires platforms at large to equip themselves with a series of mechanisms enabling users to report legal content, and there's an Article 14 to do so, as well as mechanism
for handling complaints regarding illegal content already posted in this Article 17.

So I think that's where the EU regulation stands, but there's a global motion, so I would expect that in the forthcoming I would say dedicated law regarding the regulation of NFTs we will see appearing such type of constraints on certain platforms.

MR. WELKOWITZ: Thank you.

Sorry, Ms. Odenkirk, I didn't mean to cut into your time, but now you're on.

MS. ODENKIRK: No, that's okay. What Jean-Marc had to say was certainly much more informative than what I have to say at this point, which is that, you know, I do think that it's really important to pay attention to what's happening internationally, but we do have country-based laws or, you know, the EU geographically -- otherwise geographically-based laws. We have a global marketplace that's been developed through NFTs and through the digital marketplace that has to somehow reconcile with a lot of the things that are happening in other countries, so as we are coming up with ways to navigate that, we can look to other countries and other systems to see what they've done. Certainly, it's very helpful when there have been successes but failures as well.
And I know that Sweden is currently deep in exploring their ability to use blockchain for things like property records as well as in financial transactions, and I think that their reports on that are supposed to be out in the next few months, so we should have some more indication in terms of how that experiment has gone for them, but then also thinking about things like the GDPR and how that system has developed and has really become something that we have to consider when we're drafting documentation in the United States as well.

And the problem there for where that application is that it's a centralized system, and now we're talking about decentralizing identity, and so how do those things work together? And I will say too you that on several projects that I've worked on we've had to give a great deal of consideration to terms within the terms of service on a platform because of the concern that, you know, items may be purchased in countries where, for instance, they might not recognize the way that we want to resolve disputes or it may be seen as overreaching in one jurisdiction and not in another.

So taking a look at those international issues is definitely a very complex challenge that we
all have when approaching this. The technology is
definitely complex as well and allows for
disseminating information to people and users all over
the world, so we are going to have to really face
these enforcement challenges and the lack of harmony
that currently exists within the international
context.

MR. WELKOWITZ: Thank you.

Cesar, I'm going to give you the last word
on this question and then turn it over to my
colleague, Andrew Moore.

MR. FISHMAN: Oh, boy. What an honor. So,
you know, really quickly, Jean-Marc's in-a-nutshell-
explanation of Article 17 was fantastic, so I greatly
appreciate it. I think that, you know, as he said in
his opening remarks, I think it's, you know, to be
determined to see if an NFT platform would fall under
the definition of an OCSSP, an Online Content Sharing
Service Provider. Did I get that right? I think so.

So my point is that, you know, Article 17 is
something that we at Pex have looked it pretty
extensively and developed products specifically to
help platforms navigate it. We're anxiously waiting
to see how courts begin to interpret it across the
European Union.
One of the things that I want to say is that, you know, before we even got to the international question, there were a few people on the panel that talked about the need for a pre-upload sort of review as NFTs kind of get minted and created and put on these platforms.

As I understand it, you know, Article 17 has kind of like a takedown, stay down sort of aspect to it where pre-upload review would be pretty much necessary for a platform to fully abide by it, so, you know, while there might be arguments on both sides of whether or not an NFT platform is an OCSSP, the talk of pre-upload review as things get minted and published kind of goes hand in hand with what I understand to be the intent of the EU Parliament in passing Article 17, that there is a review process after a rights-holder has, you know, gone through the steps to say, hey, this is my content, proven it's their content and said I don't want it to appear on an OCSSP.

So, you know, there is certainly a lot of analog let's say in the dicta, right, behind one or the other regardless of whether or not NFT platforms are OCSSPs, and, you know, we'll find that out later, but it's certainly something to explore in terms of
meeting those requirements, and I think, if NFT
marketplaces are exploring pre-upload review and
figuring out how that might work on their platforms to
ensure uniqueness and uphold the value of each one of
the NFTs that get traded on their platforms, you know,
they might consider not even getting to the question
of whether or not they are OCSSPs because, if they
have pre-upload review, they are de facto
participating under and abiding by Article 17. So I
will take Jean-Marc smiling and shaking his head up
and down as approval of what I've just said, and I'll
leave it there, so thanks.

MR. WELKOWITZ: Thank you.
I'm going to turn it over to my colleague,
Andrew Moore, for a last question.

MR. MOORE: I think we have about four
minutes left, right? And I'd ask Ms. Moon and Mr.
Cazares to hold their thoughts on the previous
question. If either of you still have anything you'd
like to add, please go ahead and do so now. Ms. Moon?

MS. MOON: Yeah. So mine was more on the
point that someone had made about acceptance of kind
of terms or licenses on the front end, so through a
marketplace, and one of the biggest takeaways I've had
in this space is that we really want to leverage the
technology and what it offers, so I do actually think we're going to need to see a paradigm shift with respect to, like, user acceptance of terms and licenses to actually creating this expectation because NFT metadata allows there to be a standardized place where that will live.

And so, in a new world where you'd want to be not beholden to any one platform, the whole concept of decentralization, you'd like to be able to go anywhere, you would actually want to have a world in which it could be an enforceable license or set of terms if it surfaced on the NFT, which would mean in the metadata, you know, probably linked out to another kind of hosting provider because, if you actually require the marketplaces like OpenSea to have enforceable, you know, click through terms, then you'll live in a world where you're still beholden to specific platforms.

So, really, in this whole space, I think a lot of this conversation is about really capturing what the technology can offer, and there are things that it offers that we don't have available in Web2, and so thinking about how that should change or the paradigms of what we think about basic things like terms and license acceptances, I think, is an
important conversation to have.

MR. MOORE: Thank you.

Mr. Cazares, do you want to close the session out?

MR. CAZARES: Sure. Thank you for the opportunity. Also echoing Ms. Moon's points on kind of trying to translate the legal functions that we're used to on-chain so that they're less platform-dependent, but the thought I was holding myself earlier on were relating to DMCA takedowns and disputes generally. I just want to briefly highlight that in the spirit of leveraging the technology, there is a radical opportunity for new forms of dispute resolution specifically with respect to intellectual property infringement, so in the case of -- like, I'll give a case of a fan art, for example.

It's like a lot of big brands waste a lot of time and energy trying to censor the creative efforts of people who obviously revere that brand or that enterprise, and there's an unfortunate outcome where everyone has to be, you know, swept out and taken down, so to speak, but blockchain and smart contracts allow for a way for effectively rights-holders to attach liens on the assets as a result of a settlement, so, for example, like, I could overnight
just turn all of my infringing fan artists into a new
outsourced way of content creation, only now the money
is coming directly in my account because of the
efforts of this community of fan artists.

And that's a way of trying to demonstrate
that the technology actually affords a new way to come
to efficient settlements as to the use of IP that
courages sharing and openness around it rather than,
I guess, trying to come in and take everything down
and then try to, like, figure out an NFT strategy
after the fact. I think brands are well positioned to
try to embrace the content creators and to use the
technology to afford efficient settlement in
preference to traditional legal action complaints and
lawsuits and legal costs.

MR. WELKOWITZ: Thank you, and thank you all
for your comments. They were very helpful. We're
going to take a short break. We'll reconvene at 4:00
with a panel on reflections, followed by an open mic
session, so we'll reconvene here at this spot at 4:00.

(Whereupon, a brief recess was taken.)

MS. KARL: Thanks so much again for joining
us today. I'm Brandy Karl, Assistant General Counsel
in the U.S. Copyright Office. With me today is my
colleague, Ann Chaitovitz, Senior Copyright Attorney
in the Office of Policy and International Affairs at
the USPTO. We are looking forward to the reflections
and public input in this fourth session for today's
roundtable.

We do have a few Zoom housekeeping points
before we get started today. We are recording this
session. The recording will be available on the
Copyright Office's website on the NFT study page and
the USPTO's NFT study page will also direct you to
that site. The transcription function is activated in
Zoom. If you're a panelist for another panel but not
a panelist for this panel, please keep your camera
turned off and your mic on mute, and if the panelists
for this session can turn on their video.

We have informed the participants of the
formats of each session. This session will open 30
minutes of reflection time for the panelists where we
invite each one to give a brief introduction and to
share their thoughts on today's session and any other
insights related to copyright and NFTs. We request
that these reflections be limited to four minutes. As
time permits, we'll then open the floor for the
panelists to respond to one other's reflections. The
Offices will not be posing prepared questions.

Following the 30 minutes of panelist
reflection time, there will be 30 minutes of open
microphone time for the public, and panelists are
invited to remain present in the session during this
time to continue the conversation.

We will begin in the order as stated on the
agenda. Aarthi, would you like to begin?

MS. ANAND: Sure. Hi, I'm Aarthi, counsel
at Cahill Gordon, where I specialize in IP and head
the IP team. I've advised on substantial NFT
transactions both involving individual NFT sales and
purchases, as well as advising corporate clients
looking to set up NFT platforms, so I have been in the
weeds helping clients address the IP issues posed by
NFTs, and I have about 20 years of experience. I have
published extensively in copyright and NFTs, and
previously I was a Rhodes Scholar who studied law at
Oxford, NYU, and India. I wanted to take this
opportunity to thank the Office for setting up this
very insightful conversation on this very important
topic as well as for inviting us to join you.

What I wanted to talk about were essentially	hree points. There's been lots of discussions in
prior sessions about smart contracts, licensing, and
the underlying technology, but what I wanted to do is
I wanted us to step back and look at the philosophical
question on, how do we approach copyright protection for NFTs? Far more importantly, who would have the right to mint NFTs?

For example, on January 20, 2009, President Obama was sworn in. There is a photographer who captures a moment of the inauguration that's published in the newspaper. Fast-forward to 2023, who would have the right to mint that NFT? Would it be President Barack Obama because it involves his image, or would it be the photographer who clicked the picture, or would it be the publisher, or could you and I, any third party, have the right to mint this NFT?

And this is no longer an academic discussion because we have this moment where Banksy was an artist. He painted a picture. People bought the picture, burned that picture, recorded the burning and minted and sold the NFT. This begs the question, would copyright countenance protection for an NFT if it involved burning of or destruction of an underlying work?

The second issue I wanted to bring up to us is it's very important for us to clarify the copyright protection for NFTs now because, if we fail to do so, private parties will define it for us. In prior
sessions, there was extensive discussion on multiple cases, such as Yuga Labs, but one issue that may have receded to the background is post-Hermes sues Birkin where parties were looking at both trademark and copyright infringement and another counterparty brought up the fair use defense. Parties are now like in Yuga Labs choosing not to risk copyright infringement because the concern then is that fair use will be used as a defense, so instead the lawsuits are involving only trademark infringement. Ergo, if we fail to define the copyright protection for NFTs, private parties will essentially define it for us, so it's important for us to address this.

The third issue I wanted to bring up was the ability to distinguish between when copyright would protect NFTs for creative works and when NFTs are being utilized purely as applications and so may not be protectable under copyright law. To give an example, in prior sessions, we discussed extensively the music, art items are minted into NFTs, but NFTs are also utilized for a number of applications. For example, NFTs are utilized to track ownership and transfer of title deeds in real estate and sneakers, so it is important that when we're crafting a copyright law that concerns NFTs, we should also
distinguish between when NFTs are utilized as applications and hence may not be protectable as a creative work and situations in which NFTs will actually be protectable under copyright law.

And the last point I wanted to make before we step back was the issue about international protection. It's not just the United States, right? A number of other jurisdictions are addressing IP protection for NFTs, and we need to be aware and be lock-step with it. For example, a recent Singapore court has decided that NFTs would constitute property. Both the UK and New York have allowed the utilization of NFTs in order to issue summons. Third, the UK is considering protecting NFTs. The EU has already recognized NFTs under trademarks.

So it's really why is it important? We don't want to create an IP law that disadvantages creators and companies in the United States as opposed to creators and companies elsewhere, so it's important for us to be aware of these international developments around copyright protection for NFTs even as we craft a U.S. law to address this issue, and on that note, I'm happy to turn it over.

MS. KARL: Thank you so much, Aarthi.

MS. CHAITOVITZ: Thank you so much.
And, Stephen Kelly, we will ask you to go next.

MR. KELLY: Thank you so much, Ms. Chaitovitz. Hi, my name is Steve Kelly. I'm an attorney here in Los Angeles. I work with a lot of DAO incorporators and specifically a lot of entities creating NFTs through their business. Just briefly introducing myself, you know, I'm very always struck by trying to understand the practicality obviously of what my clients are trying to do. Very few of them understand what the U.S. Copyright Office does.

Very few -- even more of them, very few, you know, understand a lot of what we've been talking about here today, and, you know, what it really strikes me as coming back to is that, you know, copyright rules that most of us here are very familiar with just don't seem to fit into the square peg of this new kind of digital asset that we're all trying to deal with. This is not, you know, a painting that I wrote that I sold to someone, right, that I can just serve them if they infringe my copyright. I could just go serve that person with a lawsuit saying you're infringing my copyright or sending them a DMCA notice. I can't do that because wallets are anonymous.

And then, when you talk about it from a
regulatory perspective, you can't really do that in
the same way either because what? Are you going to go
after the platforms and tell them they've got to do
all the enforcement of this even though some of these
transactions don't even occur on the same platform or
there are multiple different platforms they can go to
to sell these things.

So, with all that kind of, you know,
practicality is I've really appreciated everyone's
thoughts on it, and it's more the sense of do we just
need to solve those individual problems that now a
digital asset that's been created that that can solve
and then, you know, just kind of rely on what we've
already figured out because, if anything, you know, I
ty try not to give strong opinions on things I don't have
strong, you know, understanding of, and I certainly
today realize that. So thank you very much, Ms.
Chaitovitz.

MS. KARL: Next, we have Daniel.

MR. URIBE: Hello, everybody. Thanks very
much. Can you hear me well? Thank you very much. So
my name is Daniel Uribe. I am the CEO and co-founder
of GenoBank. I'm very honored to be this day with
you. Very briefly, in 2017, I was already involved
with blockchain, but my son was diagnosed with a rare
disease, and while known, it has no cure to date, but there's a lot of faith in the new gene therapies and those can be developed by researchers if we calibrate with biosamples and biodata, but what does anything about what I just said has to do with copyright?

Well, it's because, in 2020, I partner with William Entriken, the lead author of the ERC-721, he's considered like the father of the framework of the Non-Fungible Tokens, and we created what we called a biosample consent token to encode the data privacy rights for human biosamples in research, so, basically, it's a framework that encodes privacy laws but not necessarily copyright laws.

So we wrote the paper. We were peer-reviewed. Our paper is called "Privacy Laws, Genomic Data, and NFTs," right, and we were published by the British Blockchain Association and it's one of the building blocks of decentralized science, right, as we know it where decentralized science is obviously a movement that looks to empower the patients, empowers independent researchers and give access to data. So how can we balance this?

So today we just want to open the conversation in a very kind of different conversation about the use of NFTs, biosamples, or medical images.
or data sets because we use what we call patient side encrypted bio NFTs, right, because they not only represent consent in an immutable way in a decentralized network as a blockchain, so this is a way to globally establish how a person might publish and share with other ones that it's a proof of consent that has worldwide value because, obviously, the pandemic just shows that there's lack of a system where we can cooperate among countries in the bio-informatics and bio-banking space.

Now what I want to open the discussion or just invite you is how can we combine the data privacy laws and the copyright kind of rights so these could be maybe dissonant or it could be something that is not related, but there are three things that privacy laws do not consider in order for patients to leverage their bio assets, right? Basically, it's the monetization aspect. So today companies, what they do is they aggregate this data. They produce new datasets. They create IP and it's sold, and the problem is that patients today do not have a proper mechanism to participate on that value that is created by doing this.

So we propose very quickly a five-point new framework that could conceptually try to create a
conversation which is access, integrity, and transparency, right? That data subjects have the right to access their information, the control over the data. Data subjects have the right to control the distribution of their medical and genomics data. Verification and correction, data subjects have the right to request the accurate or incomplete medical and genomics data, the deletion and erasure, right? Data subjects should have the right to request that their medical and genomic data could be deleted. Portability, data subjects have the right to receive and own and have access to their own data, and finally a copyright protection. This is kind of a novelty conversation we want to bring to the table. Data subjects should have the right to protect their medical and genomic information as their original work or something similar, to control the use and distribution of their data through copyright protections or similar protections.

Bio NFTs, as we call it, should be also considered as bio IP NFTs that can be used to represent the copyrights and controlled distribution of the data based on a patient.

So, basically, this very brief moment I just want to introduce myself and open the discussion that
not only NFTs can be useful for the visual artists or
musics or so whatever. We also have all the medical
and genomic space. Thank you very much.

MS. KARL: Thank you, Daniel. Thank you,
Daniel.

MS. CHAITOVITZ: Thank you.

We'll now call on Jeff Gluck. Jeff, are you
there?

MR. GLUCK: I'm here.

MS. CHAITOVITZ: Awesome.

MR. GLUCK: Thank you for the opportunity to
participate in this today. I'm Jeff Gluck. I've been
a copyright litigator for about 15 years. I've mostly
focused my practice around street art and graffiti
art, a medium that also experience some IP confusion
at times and reminds me a lot of what we're now
experiencing around IP in this new NFT space.

Several year ago, I founded a Web3 software
company to build tools that help creators and bring
about more interoperability and mass adoption for
Web3. We developed an ERC-721-compliant smart
contract that enforces on-chain cross-market royalties
for creators. We developed and patented a process
that enables creators to launch NFTs across multiple
blockchains simultaneously and natively, and we also
designed an automation process that hooks into the U.S. Copyright office and empowers creators to file a copyright application in a few clicks and receive an NFT that represents their application. The decision in Fourth Estate in 2019 requiring creators to register their copyrights before they can legally enforce their rights against an infringer presented a big disadvantage for creators.

The Copyright Office portal is designed for lawyers, not artists, and creators typically have an impossible time trying to register their work without needing to hire and pay a lawyer. We were able to leverage blockchain and NFTs to address that pain point while still complying with Web2 legal requirements in terms of the Copyright Office and the requisite standards.

I do believe that we tend to overcomplicate the IP issues around NFTs at times. The tech is new, the terminology is new, but, ultimately, the same simple fundamental rules apply and there are still just as many, if not more, infringements on marketplaces like Etsy and eBay and stock photo sites like iStock as there are in NFT marketplaces. If you don't have the rights to sell an original work of art on a poster or a T-shirt or any other physical product
in your Etsy shop or license it out on iStock or Getty, then chances are you can't issue it and sell it as a digital reproduction of that image in the form of a non-fungible token on OpenSea.

And, historically, if you think about it, there really has never been anything in place other than the threat of litigation to prevent anyone from infringing anything, so sometimes I question whether it's warranted to spend so much time working to prevent infringements and discussing infringements in Web3 when we haven't even done that yet really for Web2. The Obama question that was asked at the beginning of this session, reframe that just in terms of a pre-NFT, pre-Web3 question, and you'll arrive at the right answer in terms of who the proper IP holder would be. You know, I don't believe that this new technology changes the fundamental analysis of who the rights-holder is.

Something else in the NFT space that seems to be overlooked but Cesar touched on it earlier is that NFT marketplaces can't hide behind safe harbor protection if they curate and play an active role in selecting the art on their platforms, which most of them do, and, further, if the NFT marketplaces are using their own technology to mint the NFTs, create
the NFTs for the creators, then they're participating, even aiding the infringement.

So it's definitely a lot of fascinating issues and things to think about. Some really incredibly brilliant thoughts and speakers today, and I'm happy to have been here and look forward to seeing all the advancements that will certainly come in the space.

MS. CHAITOVITZ: Thank you.

MS. KARL: Up next is Jennifer.

MS. PARISER: Thanks very much, and thanks to the Copyright Office and the USPTO for holding these sessions and providing me and all of these great speakers on these fascinating topics. So, as I understand the purpose of this particular panel, it's to sort of help you think about these issues, consolidate some thoughts, wrap up and think about what the government can and should do in this space, so I'm going to try to do that, although it is hard.

So, first of all, there are a lot of very interesting issues around NFTs. There's a lot of great opportunities and challenges. They represent new ways to monetize existing intellectual property assets, to bring in artists into the flow of royalties downstream that they have not previously enjoyed. It
can spur fan engagement with artists and all sorts of other things. These super-interesting, intricate issues are not copyright matters. The copyright law does not actually have very much to say at all about NFTs or any other those really interesting business issues that people went through.

NFTs are like a deed to real property. They are not themselves real property, and there might be issues around the legality of that deed or whether it is properly housed in the local, you know, town's clerk's office's register and better ways for people to access it and transfer it and so on and so forth, and that can get super intricate, but at no point does it implicate real property.

So, in the same way, we have to resist the urge to think about NFTs as having the same issues that the underlying artistic work has. Just because NFTs are associated with copyrighted works doesn't mean they themselves implicate copyright law.

We need also to resist the temptation to morph copyright law in line with consumer expectations. Consumers may expect NFTs to be a copy of the underlying work, but they are not, and if we start to treat NFTs as copies of the underlying work, that's the road to peril. We need to actually remind
and educate consumers and platforms what rights they
are getting and what they are not getting, and, generally speaking, they are not getting any of the
106 copyright rights.

And I think the most important thing that the Copyright Office can do is assist platforms in helping them articulate terms and conditions that make clear that people are, generally speaking, there are exceptions, generally speaking, not getting any copyright interest in the underlying work.

Finally, the one area where copyright law does have something to say about NFTs is in the prosecution of counterfeit ones of which there are unfortunately lots. In my work for the Motion Picture Association and my prior work in the content protection and intellectual property space, I have seen copyrighted content become infringed and pirated in every way known to man. It is a very intractable problem, and, unfortunately, NFTs represent yet another opportunity for copyrighted works to be infringed by the minting of counterfeit NFTs.

That is an area where the DMCA does have something to say. We need to figure out what liability platforms have. It is not merely when they curate content. It is when they make counterfeit NFTs.
available at all, and we need to figure out how to
deal with those issues.

That said, I don't think we need to change
copyright law at all. The copyright law as it exists
today is adequate to handle the needs of the small
number of copyright issues presented by NFTs.

MS. KARL: Thank you, Jennifer.

MS. CHAITOVITZ: Thank you.

And, Michael Lewan, you will be -- nope,
second to last speaker on this panel.

MR. LEWAN: Thanks, and hey, Ann. Hey,
everyone. Michael Lewan with the Recording Academy.
I'm Senior Director of Advocacy and Public Policy
based in Washington, D.C. The Recording Academy is
one of the leading trade associations representing
individual music makers, so our membership are the
individual artists and songwriters, composers,
producers, engineers. Had a great relationship with
the Copyright Office and the Patent and Trade Office
over the years ensuring that the laws and regulations
of the United States protect creativity, protect the
creator, and ensuring that the systems are working for
fair compensation and fair treatment of their
creativity.

We're excited to be here today to talk about
non-fungible tokens, and it's been great to listen to many other panelists throughout the day and hear, you know, I echo a lot of what's been already said during this last 24 minutes, so I don't want to rehash everything, but it should come as no surprise that, you know, music is one of the early adopters and pioneers of the NFT space. I think since basically the creation of time music has been at the forefront of the technological revolution. Certainly, in the digital space, you know, music was an early adopter in Web1, Web2, and we are some of the test cases here in Web3.

NFTs present tremendous opportunities for creators. Certainly, not all of the Academy members have adapted to the NFT world. Some might have tested it out and some really went, you know, all in on NFTs over the last couple years, so even at the Academy we don't have one consensus piece and viewpoint on it as it's so new. But, you know, you can see it on a wide range of spectrum as being the underlying infrastructure to create a whole new ecosystem where the creator is more firmly in the center of their content and have a more direct pipeline to the consumer and all that might promise to do on both the front end and the back end or just simply a fading fad...
that has been discussed, you know, at length earlier
today.

But, as we look ahead, you know, working
with the Copyright Office and the Patent and Trade
Office, we always want, you know, both offices to be
mindful of always keeping the creator firmly in the
center of these discussions, particularly when we're
making and considering new rules and regulations or
recommending new laws to Congress.

As was just said, we believe the DMCA is
technically equipped to address infringement in the
NFT space, although there are some serious questions
and concerns about the infringement, particularly when
it comes to a more decentralized platform and, you
know, really who is at fault for infringement of an
NFT that, you know, intersects with music or musicians
or even just sort of the artist's right to know who is
behind the minting of an NFT. I think it was said
earlier you can't really unmint an NFT. Once that
bell has rung, it's rung. You might be able to
department it, file a 512 notice.

You can't really get rid of it, so this is
definitely not unique, you know, we see the same sort
of stuff happening with user-generated content
platforms like YouTube that are, you know, rife with
512 notices and issues with management there, but it is definitely something that the Academy and our members are concerned about, are grateful to work with both offices as we chart a new path in this Web3 space. So thanks for having me.

MS. CHAITOVITZ: Thank you.

MS. KARL: Thank you so much.

And our final panelist for today's reflections session is Zachary.

MR. CATANZARO: Good afternoon. My name is Zachary Catanzaro. I am an Assistant Professor of Law at St. Thomas University College of Law. I'm also the Academic Chair of the Florida Bar's Digital Asset and Blockchain Task Force, a group that I've been working with for a number of years now advising the legislators in Tallahassee on what to do and not to do in this space, and I suppose it's both my pleasure and misfortune to go last because the panelists have just been so wonderful today, and I don't want to echo any sentiments that I've heard today, but it has been great hearing the various perspectives from other academics, members of the industry and other stakeholders today.

So I guess I want to wrap up by really bringing some of the focus back to the overall
question, the overarching question that always exists in copyright law, and that's what are we really trying to do with copyright law? We're trying to enrich the public by getting art into their hands, and I think I would agree with Jennifer's sentiment that this technology is not copyright in and of itself. NFTs are a DRM technology, something that the DMCA took a lot of interest in, that the Copyright Office took quite a considerable look at in preparing the DMCA report a number of years ago.

And this technology is so novel not because of its decentralized nature or immutability or one of the other wonderful characteristics you've heard about today, but it's so interesting and fascinating to me because it is a way of tethering digital assets in a manner that creates what? Non-fungibility in those assets. It creates scarcity in something that is otherwise really copyable, a scourge that has really affected many content industries, players in the movie industry and the music industry and the like, that scourge of piracy that has really dampened the competitive marketplace for a lot of creative works.

But we also need to always consider the other side of the calculus. It is ultimately the public that should be benefitting from these works.
Too heavy of a hand in regulating in this space could stop novel new and entertaining ways of getting new art, new concepts, new content out into members of the public, and I think one of the main problems that we're seeing in this space is that a lot of companies that are selling legitimately minted NFTs, they are the author or have acquired 106 rights from the owner pursuant to the written requirements in the Copyright Act, are making promises to the public beyond what they're actually giving to the purchaser in their terms of use.

I've looked at a number of smart contract contract languages where the marketing says you're going to own this NFT, but then you dig into the terms of the licensing agreement, and the licensing agreement carves out a number of exceptions that it doesn't mean that they're really acquiring anything.

So there are some counterbalancing interests that I think are important and we need to keep in mind that ultimately it's important for us as the stakeholders, the members of the community to be out there looking out for the interests of the public, to make sure that when the movie industry is coming out with great new movies for us to watch that the public is being protected in terms of what they're actually
purchasing, and if companies are promising free
inalienability of these works using NFTs, it's really
incumbent on the laws to reflect that.

MS. CHAITOVITZ: Thank you so much. I want
to thank all of our speakers for all these helpful
reflections, and I now want -- and we're, like, right
on time to the minute. I now want to open the mic for
anyone else that has comments. Please try to limit
your comments to two minutes at least until everybody
has spoken. Our speakers for this reflection are
invited to stay on camera. I have a list of those
people who have signed up saying they wanted to speak.
Ryan Wright has requested to comment, and he's first
on the list. So, Ryan, you can go first. Please
unmute yourself. Ryan, are you here? Okay. Going
once. Going twice. Ryan?

MS. KARL: There he is right there. Can you
unmute? Oh, you muted yourself again.

MR. WRIGHT: There we go. Can you hear me?

MS. KARL: Yes.

MR. WRIGHT: Okay. I had some questions.
We're working on making chest and radiology images in
NFTs, so we have proprietary information that are
biomarkers in there that could be HIPAA compliance
issues with continuing legislation on privacy and the
CCPA and CPRA and the GBPR, so we're trying to work out the privacy issues within the health insurance industry about how to incorporate radiology images as NFTs.

I know a lot of people have been talking about the art process of it, but NFTs have much more uses than art and pictures, but it does have use for radiology pictures, and it has use for several other types of diagnostic imaging that a lot of medical institutions take advantage of or are able to make a lot of money off of at this point. So we are working on trying to get that situation to a head, and I don't know if that is more in line with the subcommittee that's going into the AI in trademark patent, but that is something that we are looking for with blockchain and healthcare today. So that is my contribution. I just thought maybe I would put that in there, and, hopefully, maybe somebody had something to say about that.

MS. CHAITOVITZ: Well, thank you for sharing those thoughts with us. This is just an information-gathering day right now. There will be a report eventually sent to Congress.

MS. KARL: Yes.

MR. WRIGHT: Okay. Great. Thank you.
MS. KARL: So I'm going to ask for our next participant, Rafeal Ciraz from Lepo. It looks like they are not online.

Christopher Kane from UCSC.

MS. CHAITOVITZ: Christopher, are you here?

I don't see you here.

MS. KARL: Okay. I will go to next Tenara Lequa.

MS. CHAITOVITZ: And I don't see Tenara here either.

MS. KARL: Okay. Mike Charles Nahounou.

MS. CHAITOVITZ: I don't see him online either.

MS. KARL: They are online.

MR. NAHOUNOU: Hello, how are you?

MS. CHAITOVITZ: Oh, here he is. Yes.

Sorry.

MS. KARL: All right. Thank you.

MR. NAHOUNOU: This is the first time I saw something pop up, so I was like, okay, I don't know how I'm supposed to accept, but I know you're pushed for time, but thank you guys so much for having this. I'm very excited. My name is Mike Charles. I'm from Connecticut, Hartford, Connecticut. I'm a musician. Actually, they call me Satoshi of music because I was
I've been in music for about 20 years, so everything about IP is so great. I think it's important for us to look at smart contract enforceability which is really beholden to the actual wallets. It's not actual people. It's the technology. They have this thing called code is law. It's loyal to the wallets.

And then the term called IRL or In Real Life contract enforceability, that's for the people, and somewhere between, you know, you have the Web2 world and then you have the Web3 world. I'm of the belief that you need them both, right? You can even add Web2 plus Web3. Now you have a Web5, right? You need on ramps for both because we have for musicians, we have Spotify, we have Apple Music, we have YouTube where consumers or music collectors, they themselves are already in the habit of consuming, not really thinking about cost, but it's not profitable for the artist.

But then you have the blockchain-enabled systems where they have to participate. There is a bit of a curve, a learning curve, but once they get past that learning curve, they can participate and then go direct, kind of direct to consumer, direct to community, and then you really start talking about the full, you
know, there's a concept in law called 360 models, 360 deals where you now start to - where record labels usually get monies off of the merch and things like that.

And then you start talking that was a really fascinating use case, by the way, the gentleman, I'm sorry, his name, with the imaging, but just, you know, when you talk about 1991 with Stuart Haber and his partner came up with the original blockchain, they talked about time stamping a digital document and that document, when you look at that white paper, that particular white paper back then -- I was what? Ten years old then -- but they talked about pretty much everything, not just music or art but photographs, everything. You could think of poetry, anything that now can be represented in a digital form, so now you're talking about poetry and now I'm of the belief that when you merge musicians and actual traditional art and graphic design, everything like that, all that is is merging a JPEG or, you know, like Beeple.

Somebody mentioned Beeple today on whatever it was, a PNG file or a bitmap file or a JPEG file, it's valued about 70 million. Just imagine if there was a body of music attached to it. That was without music. How much more value does a 70 million value
transaction with music, which we already know have
value, and then how does it come in with the Salvator
Mundi that sold for half a billion dollars I believe
in 2019, which is physical art. That's IRL. So the
opportunities surrounding how art has expanded and how
collaboration is optimized where now you can share
royalties on a graphic design artist.

You can share royalties on the engineer or
audio engineer who made that and who I always think is
undervalued who made that engineering sonic decision
to make that 808 boom more than that. It made that,
you know, all the creators in the creative process can
now participate in a new model where, you know, record
labels, of course, they get disintermediated, but they
can still work with the community because the dollars
aren't going anywhere. So I'll land my plane on that.
Thank you guys for your time.

MS. KARL: Thank you so much.

MS. CHAITOVITZ: Thank you.

And Eliana Torres? Great. Unmute yourself, please. Perfect.

MS. TORRES: Hi, yeah, my only comment is in
regards to the incongruent treatment of NFTs from the
Copyright Office to the Trademark Office. So the
Trademark Office classifies NFTs as downloadable
assets that authenticate certain goods or services,
and the Copyright Office in the -- well, most of the
panelists have this idea that it's either on chain or
off chain linked to the NFT token itself, and that
would give the copyright rights to it. So the
treatment of the Copyright Office seems to be that
it's not downloadable, so it's just an asset that's
linked to a token, and by you purchasing the token,
there's no downloadable function of it.

However, the Trademark Office is noting that
as a downloadable asset, so, to me, there's an
incongruency as how it's being treated and defined,
and I think that if we're going to work jointly, the
two offices are going to work jointly in how the
future is going to accommodate NFTs, I think that the
definition and the treatment should be somewhat at
least close to the same.

MS. CHAITOVITZ: Thank you so much.

MS. KARL: Thank you.

Our next speaker from the public is Ash Kernen.

MR. KERNEN: Yeah, hi. Good afternoon,
guys. Thank you so much for hosting this. I'm a
practicing IP and entertainment attorney focusing at
the intersection of culture and blockchain. I just
want to briefly make three points.

I first wanted to put an exclamation point on an ask briefly made earlier by Jeremy in an earlier panel and that is the prudence of creating a new group registration option for NFT collections, setting aside for a moment the debate around the copyrightability of generative collections where that copyrightability is not in doubt in the vein of the Graham or the Groof that were created specifically with the music and photography industry pattern and practice in mind.

You know, I feel the Office should give serious contemplation or consideration to creating an industry-specific group registration for NFT collections or, I guess, I should say more specifically the artworks associated therewith that recognizes and accommodates the peculiarities of NFTs and among them specifically the high number of works that are often included and unique identifiers that the smart contract address.

Secondly, just additionally speaking of, you know, clarity as to whether or not AI-assisted group compilations should be eligible for copyright is desperately needed, be that entitlement to full protection or possibly a newly designated class of thinly protected works.
And then, finally but relatedly, there's this unique issue regarding enforcement and standing, and that's the dependence on the copyright holder to bring suit on behalf of the NFT holder. The problem is particularly acute for those that have been granted commercial rights.

I'd suggest that there may be room for a new limited right that would bestow standing on the NFT holder to bring an enforcement action for infringements of their particular NFT in those limited scenarios where exclusive licensee standing is frustrated by a reservation of rights from the actual copyright holder, and while, you know, I appreciate this may be the purview of Congress, and we still have the issue of registration in the first instance, to the extent a first stop administrative copyright claims board like-tribunal could accommodate these low-level holder infringement disputes, I think it would go a long way to removing that costly and, frankly, numerically burdensome burden on -- off the holder and moving it over to the -- excuse me -- the copyright holder and moving it over to the NFT owner, who has a much more acute and contemporaneous interest in seeing that enforcement action through. Appreciate it. Thank you very much for your time.
MS. KARL: Thank you.

MS. CHAITOVITZ: And so I don't think the next two people who have signed up are online, though I'm going to call their name in case they're here under a different name. So the first one is Session Cruz. Is Session Cruz online?

(No response.)

MS. CHAITOVITZ: Okay. The next person we have is Max Carmen. Is Max Carmen on the line?

(No response.)

MS. CHAITOVITZ: Okay. The next one is Kofi Mensah, and I see you online, Kofi, so just unmute yourself.

MR. MENSAH: Hi, how are you? Thanks for giving me the time. Once again, my name is Kofi. I'm a founder of Sagos Distro. We are a creative agency and a media site company. We started off two years ago with distribution technology we launched and now working on our NFT marketplace, so regards to NFTs and Web3, basically, with us, it has provided us an additional revenue stream apart from the traditional for the past 10 years. Based out of New York, we currently have a team here and a team in Africa and Asia, and blockchain technology has provided us the opportunity not only to be able to release old catalog
data by 10 years ago and making a revenue with the old
catalog that we had in NFTs and Web3, but it has also
allowed us the opportunity to train new artists and
new technology interns who are now exploring other
avenues when it comes to technology. So we see the
use cases growing exponentially the next couple of
years, and we are glad to join this panel, and we're
looking forward to learn some more.

MS. CHAITOVITZ: Thank you.

MS. KARL: Thank you.

The same I believe is true of the next
several panelists, participants. Margaret Cleary?
Alexander Model? Rafael Wartheimer? If you are on
here, let us know. Otherwise, we are moving to I
believe our final participant, which is Kevin Madigan
from the Copyright Alliance. Kevin?

MR. MADIGAN: Hi, can you hear me?

MS. KARL: Yes.

MR. MADIGAN: I would just say, if there are
others who haven't participated today, I'm happy to
yield my time, but if I'm the last, I'll go ahead. So
I just wanted to -- one thing that I didn't have the
opportunity to raise during my session when we were
talking about sort of other technical features of NFTs
that could be a challenge to copyright owners, you
know, I just wanted to make the point that, you know, when we're talking about DMCA takedown notices, you know, copyright owners may be able to have listings removed from or delisted from the marketplace.

But identifying the source of infringement through the use of a 512(h) subpoena, you know, would be difficult, if not impossible, given the sort of anonymous nature of the creation of NFTs. You know, NFTs are stored in blockchain networks but also in owners' virtual wallets, which can store material associated with NFTs like digital works of visual arts, and, you know, a DMCA takedown notice or a 512(h) subpoena can be sent to the digital wallet's service provider, which may have the ability to remove the NFT that incorporates infringing material but not likely if it's a private virtual wallet, and so I think it's something to consider, you know, just to sort of talk about another challenge faced by copyright owners is the inability to use the DMCA's 512(h) subpoena powers.

MS. KARL: Thank you, Kevin.

So now we would like to invite if we have any of our reflections panelists who want to respond to any of the public comment or to each other? Nobody? Oh, it looks like Jennifer and Stephen, so
they were trying to raise their hands, okay, so how
about Jennifer and then Stephen.

MR. KELLY: I'll defer to Jennifer here.

MS. KARL: All right.

MS. PARISER: Yeah, just a really brief
comment in response to one of the public comments
about creating a new right to bring a lawsuit by the
NFT owner that is different from a copyright owner.

I'm just having a hard time imagining a scenario in
which the owner of an NFT is given some right on which
they could sue that the copyright owner is blocking
because, if the NFT owner has a right they want to
enforce, they would have gotten it from the copyright
owner, and so they should then have the copyright
interest on which they could sue.

So I'm just having a real hard time figuring
out why we need a new right to have the NFT owner
enjoy whatever it is they have been granted in the
initial instance, so I'm sort of once again in this
place where I feel like, in the very limited scenarios
in which copyright law is actually implicated, it
isn't already sufficient to do what it needs to do
here.

MR. KERNEN: May I respond to that as the
person who brought that up? I'd like to.
MS. KARL: Oh, yeah.

MR. KERNEN: Yeah. Thank you. I appreciate the feedback. Yeah, so --

MS. PARISER: I don't have permission to allow you to respond.

MR. KERNEN: I'm sorry. Yeah, no, let me wait. I'll wait out. Is it okay?

MS. KARL: Yeah, can we do one minute because we also want to get to --

MR. KERNEN: Oh, yeah, absolutely. Yeah, just let me just elaborate or paint the picture. Let's just use a for example. Let's take a Yuga license, right, which in and of itself has problems, but these are obviously highly valuable assets that are being licensed out all the time. They're being sub-licensed out based upon the commercial rights granted to them, but there's a real question of whether or not in any given instance if that particular ape has been infringed upon in that commercial downstream licensing scheme, whether the holder of the NFT actually has standing to go into court and try to enforce their sort of commercial rights.

Ostensibly, they don't because, number one, Yuga, and, again, we can get into this debate about
their particular license, but, at best, it's a non-exclusive grant because Yuga reserves the rights to those particular images themselves, so I think really what I was just trying to beg is this thought process around, you know, how does somebody who pays all this copious amount of money for these images and are granted commercial rights, how do they actually enforce them if Yuga -- it doesn't pay them. They have 10,000 different iterations that they might be drug into court for, and it's expensive, and they may or may not have an interest in enforcing that, but, certainly, the holder does, and so that is really the question which I'm begging. Maybe the solution I proposed is not the right one, but it's certainly an issue that we've bandied about.

MS. KARL: Thank you, Ash.

Stephen?

MR. KELLY: Yeah. No, I'm glad I deferred there because I was actually going to reply to that same issue Jennifer just raised there as well as Mr. Kernen. I can also see, like, that situation seems so ripe for, you know, some more additional policymaking maybe within the ERC-721 protocol itself or with a platform's licensing schemes or with, you know, the ability of NFT holders and how the actual platform and
the metadata can be enforced downstream because the
issue that Mr. Kernen's bringing up about the
enforcement of that, right, is based on the fact that,
like look, these are all non-exclusive license. How
do I ever enforce or do something like that?

Well, I mean, isn't that the issue of the
thing that you bought? I feel like that's so much
more ripeness around, you know, there being a common
standard throughout the industry that someone could
actually enforce that, that, you know, people who buy
NFTs, but all of that, I can't imagine how that exists
within the realm of, I think, what Ms. Pariser -- I'm
sorry if I butchered that -- was talking about is like
how does that in any way fall within the scheme of
what, you know, while brilliant and amazing regulators
they are, what the U.S. Copyright Office does? It
doesn't really do that.

These are tech and business-related
problems, and, you know, I appreciate that, you know,
Mr. Kernen's comment at the end there that that's one
solution. I just find from a, you know, finding
effective regulation and finding a solution people can
live with, I just don't think the U.S. Copyright
Office is the place that does that. So please go
ahead.
MS. KARL: Thank you, Stephen.

Aarthi?

MS. ANAND: I'm going to make three quick points. One is it was interesting to hear the various speakers talk about, like, certain applications of NFTs beyond creative works, so it goes back to the point of when the Copyright Office is submitting the report to Congress it may be helpful to distinguish between when NFTs involve creative works and when they don't.

Second is our panels have been talking about, like, terms of use, and a prior panel covered this quite extensively. And I know we are emphasizing Yuga Labs, but there are a number of platforms that offer terms of use, and several of them contain reps, warranties, and indemnities which require the minter to provide a rep and warrantee that they own the IP rights in connection with the underlying work and that when transferring it to the buyer, they'll indemnify the buyer and they'll indemnify the platform in case the platform is sued.

And the last piece I want to point out is Tarantino v. Miramax, so what's happening is that was an exact example in which Tarantino and Miramax fought over who could have the right to mint the NFT. Why is
this important? Because they've entered into an out-of-court settlement, and so we don't know how they sliced and diced the rights. That's why in my view it's important for the U.S. Copyright Office to provide clarification on it so that private parties are not determining the way the law folds.

MS. KARL: Thank you. I think, with that, unless we have anymore, we are going to wrap up for today. We really appreciate everyone's participation in today's session and in all the sessions. It's been a really thoughtful and lively discussion around a very important and timely topic. So we do want to remind everyone, if you would like to share your insights or perspective in writing on IP issues and NFTs that is over patents, trademarks, and copyrights, comments may be submitted on regulations.gov through February 3, and thanks again for your participation. Have a great evening.

(Whereupon, at 4:54 p.m., the roundtable in the above-entitled matter adjourned.)
REPORTER'S CERTIFICATE

CASE TITLE: Copyright Office NFTs Study
HEARING DATE: January 31, 2023
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I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the Library of Congress.

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