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UNITED STATES
COURT OF APPEALS
FOR THE
FEDERAL CIRCUIT



INTRODUCTION

This issue of the Journal *celebrates Circuit Judge Pauline Newman. She has been a Circuit Judge on the United States Court of Appeals for the Federal Circuit since 1984. During more than 40 years, she has authored thousands of judicial opinions in all areas of the court's jurisprudence. Some of her decisions have established groundbreaking principles of law, to which we adhere today.*

Additionally, Judge Newman has written more dissenting opinions than any other Federal Circuit judge in the now more than 44-year history of the Court's jurisprudence. Dissents are critical to development of the Federal Circuit's jurisprudence. Unlike the Regional Circuits, from which most cases percolate and bubble up to the Supreme Court through splits among the circuits, no circuit splits are possible within the multiple areas of the Federal Circuit's exclusive jurisdiction.

Of her dissents, 16 cases have reached the Supreme Court of the United States on a petition for a writ of certiorari. In 13 of these 16 cases, Judge Newman's position in dissent at the Federal Circuit was vindicated by the United States Supreme Court on appeal. She has had a phenomenal impact on the development of the law in all areas of the course jurisprudence.

Circuit Judge Newman was, along with former Clerk of Court, George Hutchinson, one of the founders of the Federal Circuit Historical Society. One of the Historical Society's major projects is to record, publish, and compile oral histories of Federal Circuit Judges. This issue includes an oral history of Judge Newman.

Circuit Judge Pauline Newman received her B. A. From Vassar College; M. A. in pure science from Columbia; PhD in chemistry from Yale; and LL.B. from New York University, School of Law. She worked as a Research Chemist at American Cyanamid and was Director of Patents and Licensing at FMC Corporation in Philadelphia. During her time in practice, she served as an advisor to various governmental programs and an officer and director of several bar and scientific associations. She was the recipient of dozens of awards from various legal and scientific associations and groups, taught at the George Mason University School of Law, and was Founding President of the Giles Rich American Inn of Court. She has an American Inn of Court named after her, based out of the U.S. Patent and Trademark Office, in Alexandria, Virginia. In addition to the thousands of opinions she authored or in which she participated while a circuit court judge, she has authored numerous publications in the fields of innovation, science, and the law.

One of the other major functions of the Historical Society is its Lecture Series. The Society sponsors three lectures a year, typically: one in the spring; one in the fall; and

one at a luncheon during the annual Federal Circuit Bar Association Bench & Bar Conference. In addition to Judge Newman's Oral History, this issue features five articles based on Society Lectures.

Dr. Caoimhe Ring received her Doctor in the Philosophy of Law degree from St. Peter's College, Oxford University, and is a Lecturer in Intellectual Property at the University of Bristol. Her lecture on "Intellectual Property Law and Innovation for the Climate Crisis," was the subject of her doctoral thesis. She examined the impact of intellectual property rights on the diffusion of climate–friendly technologies, drawing on 41 interviews with climate–friendly inventors, and analysis of over 280 patent applications. Her work focuses on access to knowledge, and how that knowledge influences our responses to the current climate crisis. She is also published a thorough and well-received article on this topic in the *Harvard Journal of Law and Technology*.

Major L. Trent "Pilgrim" Bradford presented a lecture at the Federal Circuit Historical Society Luncheon during the 2023 Federal Circuit Bar Association Bench and Bar Conference, in Colorado Springs, Colorado, on "The Law of Cyber Neutrality." Major Bradford is an Assistant Professor of Law at the United States Air Force Academy, in Colorado Springs, Colorado. Major Bradford directs the Air Force's Cyber Program, of the Law, Technology and Warfare Research Cell. He received his B.A. from BYU and worked for years as a trial lawyer handling criminal cases for the military, all over the world. Major Bradford rose to Chief Circuit Trial Counsel. He served in Afghanistan and Iraq. In 2022, he received his LLM in Space, Cyber and Telecommunications Law from the University of Nebraska-Lincoln. Major Bradford explained some of the challenges facing all of us all, as we attempt to do deal with the multitude of cybersecurity issues arising under the more than 100-year-old Laws of Neutrality, developed 8 to 10 decades before the modern "cyber" era.

Cliff Sloan is a Professor of Constitutional Law and Criminal Justice at Georgetown University Law Center. He presented the Society's Fall 2023 lecture on "The Court at War: FDR, His Justices, and the World They Made." Prof. Sloan has served in all three branches of the federal government, and has argued seven cases before the United States Supreme Court. In addition to "*The Court at War*", he is the co-author of another book about the Supreme Court. His commentaries on the Supreme Court have appeared in numerous publications including: *The New York Times*; *The Washington Post*; *Slate*; and other publications. On the eve of the Second World War World War, President Franklin Roosevelt had appointed seven of the eight Associate Justices of the Supreme Court, as well as the Chief Justice of the United States. In this time of national peril, Roosevelt looked to his Justices to support his wartime policies, even when they encroached on civil liberties, and the liberal tenants of the Democratic Party and the New Deal. Professor Sloan assessed how they fared in doing so.

Former Federal Circuit Chief Circuit Judge, Paul R. Michel, presented a lecture for the Society at the Cosmos Club in Washington, DC in June 2025. Former Chief Judge Michel had a career as a prosecutor in Philadelphia, Associate Attorney General for the United States Department of Justice, and Counsel and Chief of Staff to Sen. Arlen Spector. Judge Michel served as Chief Judge from 2004 until 2010, when he retired. He currently speaks around the country and the world on intellectual property issues and mediates and arbitrates intellectual property disputes. His lecture, "Has

the Federal Circuit Fulfilled Its Promise?" addressed the goals Congress set in establishing the Federal Circuit, and how the court has fared in reaching these goals.

Finally, Phil Long delivered the Society's Luncheon Lecture during the Federal Circuit Bar Association Annual Bench & Bar Conference in Napa, California, in June 2025. Mr. Long is the founder and winemaker at Longevity Wines, a Livermore, California-based family winery. Mr. Long was born in Washington DC, and raised in Southern California. After receiving a degree in architecture from Cal Poly, Pomona, he started a career in design. He ended up in Northern California, where he met his first wife, Deborah, and learned about wine. In 2003, Mr. Long and his wife began making wine in their garage. By 2009, they gained national distribution and expanded. Mr. Long has served as President of the Association of African-American Vinters. He gave a presentation about the history of winemaking in California, beginning in Livermore, almost 2 centuries ago. He discussed the growth and well-earned prestige of the California wine industry, and provided details about the growth and development of his own brand, Longevity Wines.

This issue of the Journal includes a brief summary of Society's activities during 2023. It concludes with a Cumulative Index of Volumes 1 to 17 of the Society's *Journal*.

We hope that our readers enjoy and learn something new and useful from this, and every, issue of the *Journal*.

1. ORAL HISTORY: UNITED STATES CIRCUIT JUDGE, PAULINE NEWMAN

Based on an in-person interview with United States Circuit Judge Pauline Newman, on September 22, 2023, in the Chambers of Circuit Judge Newman, National Courts Building, 717 Madison Place, NW, Washington, DC.

Transcript has been edited for clarity.

COYNE: Hi, I'm Patrick Coyne, and I'm here today with Circuit Judge Pauline Newman, and we're to take Judge Newman's oral history. So, let's start when you finished college. What did you do for college?

JUDGE NEWMAN: I went to a small college in New York, for an essentially general liberal arts education—a good school known to emphasize education and learning—and I certainly found that to be the case.



COYNE: And where did you go?

JUDGE NEWMAN: I went to Vassar, Vassar College.

COYNE: Very well-known school.

JUDGE NEWMAN: Yes, it was known to be a school where you got a good education.

COYNE: And what did you study?

JUDGE NEWMAN: Well, I studied everything. There were no specifically required courses, and you could study whatever interested you. We were encouraged to include the sciences, and there was a full science curriculum. It was during and right after World War II and it had become clear, especially after the atomic bomb, that science was important to a liberal education. So, I took several science courses, as well as everything else that caught my fancy.

COYNE: What attracted you to chemistry in particular?

JUDGE NEWMAN: Chemistry is interesting. It's interesting to understand that we don't live in some sort of undecipherable black box, and there are new things that can be learned about how the world works. And chemical science wasn't in such a raw state that it was intimidating. It was a good time to be studying chemistry, as I discovered, and there were excellent teachers. Vassar has excellent teachers.

COYNE: And I understand you also took courses in philosophy while you were working on your chemistry degree.

JUDGE NEWMAN: Yes. We could sign up for any courses that suited us, and philosophy was interesting, and again with excellent

teachers. And once you started reading the ancients, particularly if you grew up in New York as I did and thought you knew everything, then you realized that the same deep ideas were considered many centuries ago, and wisely and eloquently. It was a mind-opening, broadening study.

COYNE: That's an unusual combination of a hard-science and philosophy. What attracted you to that particular combination?

JUDGE NEWMAN: Again, I studied whatever I thought was interesting. When I applied to graduate school, they wanted to know what you majored in, and I'd taken enough courses in chemistry and in philosophy to constitute a joint major—although for the bachelor's degree I didn't do original research.

COYNE: But you did ultimately, so let's continue onto your Master's program, you went to Columbia. What led you to continue right away into Columbia?

JUDGE NEWMAN: I went to Columbia to learn more science. Columbia had a Master's program in what they called Pure Science. This program was all coursework, and with excellent faculty. I knew I had a lot more to learn, and that I wasn't ready to concentrate on some highly specialized aspect. Of course, the next chapter of a scientific education is to do original research, and that is certainly the significant career step.

COYNE: So, what did you do after you took your Master's degree?

JUDGE NEWMAN: I went to Yale for the PhD.

COYNE: What was your PhD in?

JUDGE NEWMAN: My field was called Physical-Organic Chemistry, and the topic of my dissertation was Oxidation Potentials of Hydroquinone Monoethers. I was studying electrons and how they move around. The PhD program includes original research to produce new knowledge, as well as advanced coursework. And, of course, your field of research may turn into your life's work, which some graduate students find to be a good idea.

COYNE: But was it the idea you had, though?

JUDGE NEWMAN: My PhD filled three years. Each experiment added enlightenment. There was much to learn, and we learned from a dedicated faculty and from each other.

COYNE: How big was your PhD class at Yale?

JUDGE NEWMAN: Yale had an active doctorate program in all fields, and there were many graduate students. There were several dozen in chemistry—I'd have to check for a more exact number.

COYNE: Were there other women in your class?

JUDGE NEWMAN: There were three other women in the chemistry PhD program. One went on to medical school, one joined a think-tank, and one took the traditional PhD path of teaching.

COYNE: Academic career.

JUDGE NEWMAN: Yes, that's what the PhD often leads to.

COYNE: And before you finished your PhD, you started to work, right?

JUDGE NEWMAN: Well, I had finished the experimental work, but I hadn't finished writing my dissertation when I started to work.

COYNE: So, you went to American Cyanamid?

JUDGE NEWMAN: Yes.



COYNE: And what were you doing in that job?

JUDGE NEWMAN: My research involved several interesting areas, with a focus on polymer science. Cyanamid's research activities were directed to new methods and products and uses in a variety of fields of commercial potential.

COYNE: Was that work interesting to you, personally?

JUDGE NEWMAN: It was fascinating.

So, I had spent a lot of time doing polymer work for some clients over the years, and I've always found it to be very interesting. The Lego assembly of chemicals and the more complex molecules.

COYNE: So, did you continue at Cyanamid, and for how long after your doctorate?

JUDGE NEWMAN: I was there for about three years.

COYNE: Working in the same field?

JUDGE NEWMAN: Pretty much in the same field, yes.

COYNE: And what did you do next?

JUDGE NEWMAN: The next thing was I took a vacation. I'd not had a vacation and so it seemed to be the thing to do. So, I boarded the *Ile de France* and went to Paris. I stayed in Europe for several months, although my original plan was for two or three weeks. So, I sent my resignation to Cyanamid.

COYNE: Oh, great!

JUDGE NEWMAN: When I eventually came home, Cyanamid told me they'd saved my job. But I'd been thinking about whether I should move to teaching for the rest of

my career, and I started looking for teaching opportunities at research universities. This is a long-term process, and as a stopgap I accepted a job at FMC, whose Patent Director was recruiting at a meeting of the American Chemical Society.

COYNE: And how did you start at FMC? What were you doing when you began there?

JUDGE NEWMAN: FMC was looking for a chemist to assist in patenting the discoveries of its research scientists. I knew generally what was involved, for such persons at Cyanamid had assisted in patenting my inventions there. I had no intention of making a career of such work, but it filled the gap during my university job-hunting.

COYNE: Okay, you mentioned some patents. What patents do you have?

JUDGE NEWMAN: [Showing Patents] These aren't the original patent documents, which I trust are in the archives of American Cyanamid. But a friend duplicated them with ribbons, and put them in these nice frames.

So the first one is 2,790,737 ["Soil retardant fabric and composition and process for producing the same"] and the other one is 3,133,893 ["Pigment particles coated with polymer and method of preparing the same"].

COYNE: So did you—-

JUDGE NEWMAN: That's a long time ago, as these low numbers show.

COYNE: So you were awarded both of these while you were at Cyanamid?

JUDGE NEWMAN: The patents issued after I had left, but I was delighted that the work I had done was patentable and useful.

COYNE: Okay. Well, you know I was involved with AIPLA for years, and I know you were



very involved with AIPLA for years, but I think a lot of people would be very interested to find that you were a patent agent at one point in your career.

JUDGE NEWMAN: Yes. Although I intended only a temporary occupation, I took the patent agent's examination and passed it.

COYNE: Right. So, I would imagine your registration number is very low. I remember Judge Luckern, when he was at the ITC, he'd start every 337 hearing by demanding everyone's registration number before he began the proceeding. So yours is quite low, I would imagine.

JUDGE NEWMAN: I don't know it by heart, but we can find it if need be.

COYNE: Thank you. So then, you were drafting patent applications in what types of fields at FMC? What types of technology were you dealing with at that point?

JUDGE NEWMAN: Well, whatever came up. FMC at that point was making a lot of things, including chemicals, manufacturing equipment, and heavy equipment.

COYNE: What things in particular were you attracted to or interested in, and what was the flow of work you were getting there?

JUDGE NEWMAN: I worked with the chemical side of the company, and I don't recall that the choice was mine as to exactly what I worked on. It was all interesting.

COYNE: Were there multiple patent agents in FMC at that time or were you getting the bulk of the work?

JUDGE NEWMAN: FMC had a sizable patent staff, with separate departments for the machinery and chemical operations. The company understood the role of patents in research and commerce. They knew the importance to the company—and I learned the importance to the nation's industry.

COYNE: So this would have been the mid-fifties at that point, a point where our economy was expanding quite rapidly.

JUDGE NEWMAN: Yes. It was during the nation's strong post-war industrial growth, when the nation was achieving international leadership in technology.

COYNE: Did you find the work challenging?

JUDGE NEWMAN: Yes.

COYNE: Was it interesting to you personally?

JUDGE NEWMAN: Adequately.

Yeah.

Adequately. You don't have to be fascinated every day in order to do satisfying work.

COYNE: But you mentioned attending law school. So you began on a law degree shortly after you started working at FMC, correct?

JUDGE NEWMAN: Yes, after I learned there was a night law school at NYU, for I lived just a few blocks from the law school, in Greenwich Village.

COYNE: Oh.

JUDGE NEWMAN: I initially viewed it as a matter of stopping by the school and taking a few courses on my way home from work. I hadn't ever thought to be a lawyer. I certainly didn't have in mind that I might not go back to the laboratory. I just took each day as it came, and also it was a stimulating life in New York—it was an artistic center, a vibrant theatrical scene, a musical magnet—and Greenwich Village was full of interest. I didn't feel pressed to make a lifelong decision about career changes.

COYNE: So what FMC unit were you working in at that point? If you were living in Manhattan and going to school in Manhattan, was the office close or not?

JUDGE NEWMAN: Yes, FMC's chemical operations then had offices in Manhattan. The laboratories and manufacturing operations were widespread, and I did a lot of travelling, nationally and internationally.

COYNE: Okay. So that was a very busy time for you. I've been teaching as an adjunct for a few years at Georgetown, and I know both GW and Georgetown have very substantial night programs. But working full time during the day and then going to law school, that's a very taxing schedule.

JUDGE NEWMAN: Well, it depends on what you're taking the time away from. You can spend your evenings in the local hangouts, or you can spend it listening to scholars who have interesting and useful things to say.

COYNE: True enough. So after you finished your law degree, you continued at FMC. What was your next role there?

JUDGE NEWMAN: I just kept on doing what I'd been doing, although of course my skill increased with experience. The work was more interesting than I had expected. I had a happy life, and just kept on going.

COYNE: Were there any other women in the department at FMC at that point when you finished your law degree and continued working there?

JUDGE NEWMAN: No, I was the only one. But it was a cordial, supportive environment, and I didn't feel disadvantaged by being female.

COYNE: Well, that's great.

JUDGE NEWMAN: A good company, with good management.

COYNE: What was it like making that transition from a patent agent to a patent attorney?

JUDGE NEWMAN: The principal difference was in my confidence, as I continued to gain experience. And after I finished law school, I had more time for diversion and the benefits of living in New York.

A lot more free time.

COYNE: That's great. So what types of techniques, we talked a little bit about what you were doing at FMC when you were an agent, was it the same mix of technologies, or with the acquisition of American Viscose, was there a change?

JUDGE NEWMAN: Well, all of FMC's technologies were interesting. The company was very diversified, forward-looking, and ambitious. Its research operations were aimed at improving its processes and products and enhancing its businesses, nationally and worldwide. Our patent and other legal resources were involved in all these activities.

COYNE: How did your career advance in the company at FMC? So you went from a patent agent to a patent attorney, did you have other roles as your work progressed there?

JUDGE NEWMAN: Well, in-house counsel becomes involved in many legal areas. FMC also had a general law department, and we worked in harmony. In 1969, when the head of my department retired, I received that position.

COYNE: So you were made Director of the department?

JUDGE NEWMAN: Yes.

COYNE: Did your day-to-day work change much with that? Did you start getting into other management responsibilities? Or were you continuing to do the same type of work?

JUDGE NEWMAN: When I took over the department, I became responsible for everything—the staff of professional and clerical employees and the quality of our performance. As the manager, I interacted with many company operations, from research planning to worldwide commerce.

COYNE: You must have been exposed to other areas of IP in that role in addition to patents?

JUDGE NEWMAN: Indeed yes. We were responsible for the trademark and copyright and trade secret practices, worldwide. We managed obtaining and assuring protections in every country, as well as licensing and technology exchanges.

COYNE: So, the bar these days has become, as has medicine, much more specialized. Now in firms we have people who specialize only in patent prosecution, only in patent litigation, only in trademark work, only in copyright. Was it the same way then or were you doing all of it?

JUDGE NEWMAN: We were doing all of it. Of course, specialists developed among the staff, and we also obtained advice and legal services in every country.

COYNE: Well, FMC is still a multinational corporation today. So did you have the resources in that position that you needed to get the work done?

JUDGE NEWMAN: Absolutely. We had whatever resources we needed.

COYNE: So let's shift for a few minutes to bar associations, because I know this is something that you've been very involved with. And you know I have. So how did you first get into working with bar associations in your career?

JUDGE NEWMAN: It followed from the science tradition. As a chemist we were all members of the American Chemical Society, and we would routinely go to meetings, attend seminars, listen to papers, and generally participate in the professional culture. So the idea of joining a bar organization was second nature, it didn't require a deliberative decision.

COYNE: There was an interesting book a few years ago by a fellow named Henrich who's now teaching at Harvard, and he attributes associations as well as other factors in society as being a real driver of social evolution, that we get better at what we do when we associate with our professional colleagues and learn from each other.

JUDGE NEWMAN: I agree.

COYNE: Has that been your experience within your career?

JUDGE NEWMAN: Absolutely.

COYNE: You've also been involved with founding some bar associations. You were one of the founders of the Giles S. Rich American Inn of Court that's housed here in the courthouse. Right?

JUDGE NEWMAN: Yes.

COYNE: What led you to get involved with the Inns?

JUDGE NEWMAN: Well, the Chief Judge of the CCPA [Court of Customs and Patent Appeals], Howard Markey, had apparently been very supportive in initiating the American Inns of Court, an idea that originated with Chief Justice Warren Burger. Some early inns were housed at our courthouse. After I came to the court, the Prettyman-Leventhal Inn of Court, named for two judges of the DC Circuit and focused on administrative law, met in our courthouse. I was on their Board. The Giles Rich Inn was then formed, with the impetus of Al Tramposch—you know Al.

COYNE: Yes, I do.

JUDGE NEWMAN: I call Al the godfather of the first inn focused on intellectual property.

COYNE: Well, Al may have been the godfather, but you were its first president, weren't you?

JUDGE NEWMAN: Yes.

COYNE: Right. That may have been the first IP Inn of Court but there are now other IP Inns, in fact one of them is named after you, right?

JUDGE NEWMAN: Yes.

COYNE: The Pauline Newman Inn over in Alexandria. I know you attend the meetings. And I see you at some of the Rich Inn meetings and I know you attend their meetings regularly as well.

JUDGE NEWMAN: I certainly do.

COYNE: That's great. In addition, you were also very active in ABA, weren't you?

JUDGE NEWMAN: Yes, I was there.

COYNE: There was a Patent Trademark and Copyright Section at one point. This goes back to the eighties before the sections were realigned in ABA, but you were very involved with that group at one point.

JUDGE NEWMAN: Yes.

COYNE: And in addition, you were on the Board of Directors of AIPLA at one point as well in the early eighties, correct?

JUDGE NEWMAN: Yes.

COYNE: I could go on with a whole list. You were involved with the United States Trademark Association before it became INTA, right?

JUDGE NEWMAN: Yes. I was Vice-President.

COYNE: And you were on the Board of Governors of the New York Patent Law Association?

JUDGE NEWMAN: Yes.

COYNE: Okay, and president of the Pacific Industrial Property Association?

JUDGE NEWMAN: Yes.

COYNE: So you've been very involved throughout your career at a number of bar associations. Yes?

JUDGE NEWMAN: So it seems.

COYNE: Right. It's a commitment and it takes time and it must be important to you. So for you personally, what is it that you get out of the bar association meetings apart from the generalized experience in your field, and as you mentioned when you were working as a patent agent and a patent attorney.

JUDGE NEWMAN: I think it's mostly the experience of being involved in a profession, with people having similar interests. A combination of sociability and professional development. It wasn't for me a deliberative decision to do this or that with bar associations. From time to time I would go to a meeting, meet with friends, and usually I'd learn something.

COYNE: That's great. Well, I mean, I've been very involved with them and I think one of the things that I most appreciate about them is what you're pointing out is the networking, the ability to interface with your peers outside your own organization. And just getting to know other people that are doing the same kind of work, I find personally very fulfilling. But, also, it gives you a network of people that you can turn to when you've got questions that maybe people in your own organization can't answer.

JUDGE NEWMAN: Yes, that's absolutely right. I continue to draw on this experience, for I've been thinking about the litigation changes I see in intellectual property issues, and I'm trying to understand the trends I see in dispute resolution. There are bound to be conflicts in complex businesses, but I wonder at the increasing resort to litigation. Is this your experience? The litigation stakes are often quite high, yet the final resolution is entrusted to a few strangers sitting at an elevated bench, with 15 minutes to explain your position.

COYNE: Or 12 hod-carriers, good and true. I mean, at the time that you began in this field, and certainly even when I began a couple of decades later, these cases weren't tried to a jury. They were tried to the bench and there were very few of them. There were a couple of hundred a year. Well, now it's back down to about three thousand, but you've seen it grow to about six thousand patent cases being filed each year. So what do you make of these changes? Instead of two competitors sitting down and working it out, there's not only a lot more competitor-litigation, but in my experience now,

relatively few of the cases are competitor cases—it's other people with an interest in your business, shall we say. What do you make of these changes? Is it good or bad?

JUDGE NEWMAN: Well, that's a very complicated question. If I knew the answers, I would take this opportunity to announce them. But the one thing I know is that improvement is needed in several aspects of patent disputes. I have heard creative suggestions, such as learning from the European patent community's practices, or providing a few years of incontestability for an examined patent, or adopting a working-requirement for litigated patents. A variety of ideas were floated during the ten-year gestation of the American Invents Act but were set aside with formation of the PTAB [Patent Trial and Appeal Board]. Meanwhile, technological innovation has become more and more critical to the nation—and to our leadership in a turbulent world.

COYNE: Well, and as you were talking about earlier, litigation becomes very expensive. I mean, if you go back to the seventies or eighties, a couple of hundred cases were filed a year, and they didn't require the resources, the time, the money that they require now, whereas a typical competitor case these days is going to set back each company, five, ten million dollars, just to get to a decision.

JUDGE NEWMAN: Yes, it's gone wrong. People tell me that they're working on it. I hope so. As a judge, my job is to apply the law that exists, the law the populace is supposed to comply with. As judges, we're supposed to understand the policy of the law, and apply it fairly and justly. In the IP area, the way litigation has evolved is not only inefficient, but the unpredictability of outcome is a deterrent to investment and commerce. Perhaps litigating counsels' earnings would be affected, but with the growth of science and technology, there seems to be plenty of work.

COYNE: There is. You can't make enough money on one case to justify not getting the result the client needs. I'm not sure the litigants are going to be able to solve the problem either, unfortunately.

JUDGE NEWMAN: It's not simple. I observe all sorts of complexities in adjudication, for example, the antitrust concern about dealing with your competitors—and a variety of new regulatory concepts may interact with IP law.

COYNE: And the nature of business has changed in the last few decades pretty substantially, with the Internet, and now AI and all kinds of technological developments are changing the way we do business.

JUDGE NEWMAN: Yes, it seems clear that the patent law hasn't adequately adjusted to the digital world. There needs to be fresh thinking, by judges and by practitioners. The application of Section 101 to software is a prime example.

COYNE: We'll continue to work through that, but I wanted to come back to, in addition to the bar committees you've worked on and associations you've been involved with, you've been very involved in several very important government committees over the years. So I wanted to back up. In the seventies, ´74 through ´84, you worked with the State Department Advisory Committee on International IP. Right?

JUDGE NEWMAN: Yes. We were reviewing the treaties in view of evolving international situations. As I recall, no dramatic changes ensued. I also recall being impressed with the quality and perceptiveness of the participants in these activities, from all nations.

COYNE: Well, we're still talking about harmonization fifty, sixty years later, so I guess it hasn't really achieved all the results that might have been cracked up to be. But you were also involved in the late seventies with the Advisory Committee to the Domestic Policy Review on Industrial Innovation. What did that involve?

JUDGE NEWMAN: That activity was initiated by President Jimmy Carter, to try to move the nation out of recession through governmental stimulus of industry. There were several committees, including one focused on patent issues. As you know, this led creation of the Federal Circuit, in order to stabilize patent adjudication, to provide reliable patent law. The committee discussed the extreme differences among the regional circuits, and proposed removing patent validity from the regional circuits.

COYNE: So what was the problem at the time with the regional circuits?

JUDGE NEWMAN: The driving force appeared to be policy differences, leading to varied statutory interpretations. In one circuit, no patent had survived in the forty-year period surveyed. The Supreme Court appeared to share a general misunderstanding of the system of patents—a Justice famously commented that the only valid patent is one that the Court had not got its hands on. Do you remember which Justice said that?

COYNE: I don't.

JUDGE NEWMAN: Nor do I—but he was right. However, the Carter committee sought to understand the role of patents in industrial innovation, to overcome the hype and to balance all the interests. The committee consisted of representatives of government, industry, public interest groups, research institutions, the academy, scientists, and litigators. The chairman was AIPLA President Bob Benson, who was chief patent counsel for Allis-Chalmers. We concluded that a patent-type incentive facilitated innovative activity, and we could find no comparable alternative. We observed the variation in patent rulings among the regional circuits, leading to unreliability of the patent grant. So we proposed that all patentability determinations be made by a single court, with experienced judges such as on the CCPA. The committee heard many reports that industry was not squandering its resources in areas that required the patent incentive in order to achieve profitability.

COYNE: You rely on trade secrets or find another way.

JUDGE NEWMAN: Yes, trade secrecy is always an option, for things that can be kept secret. Today, it's just about impossible not to be able to reverse engineer anything, no matter how complicated it is.

COYNE: Probably some details in chemistry, or formulas such as Listerine, Coca-Cola. But when you get into the mechanical and electrical arts, it's really hard to find something that can't be reverse engineered.

JUDGE NEWMAN: Yes.

COYNE: I mean, there are teardown shops that will tear apart any electronic device and tell you exactly how it ticks. So getting to your point, I remember that before I came to this court to clerk, I was assigned a research assignment to look at Eighth Circuit precedent where the case was pending, and I was tasked with finding has the court ever held a patent valid. In the forty-year period I researched not one patent that came before the Eighth Circuit was held valid. Every single one was invalidated. This is before the Commission that you were mentioning.

JUDGE NEWMAN: Yes.

COYNE: And then other circuits like the Second or Ninth or Seventh were much more favorable.

JUDGE NEWMAN: Even patent-favorable circuits did not blindly uphold all patents, as seen in the decisions of Judge Learned Hand of the Second Circuit. They tried to get it right and had that reputation.

COYNE: So how did you get involved with this Commission when it was established?

JUDGE NEWMAN: I don't know. I was invited to be a member.

COYNE: And how did your work progress to get us where we are today?

JUDGE NEWMAN: The Commission consisted of people immersed in every aspect of industrial innovation. For instance, people from government and university research labs explained that because federal law barred the grant of exclusive rights to federally funded research, useful discoveries often were not developed to public benefit.

COYNE: Right.

JUDGE NEWMAN: So our committee recommended that the law be changed, and the Bayh-Dole Act was duly enacted. These and other aspects affecting innovation were not unknown, but now, with presidential attention, they moved ahead. President Carter was a businessman, and he understood that industry has to meet its payroll, and to pay for its failures as well as its successes.

COYNE: Right. So, what was the product that you produced in this committee? How did it get from the discussion among these different stakeholders, business, government, academia, national labs, to this court?

JUDGE NEWMAN: Well, we concluded that several statutory changes would be beneficial. In addition to the Bayh-Dole Act, this led to the Hatch-Waxman Act. Other committees also achieved legislative support, such as for certain tax credits for enhanced R&D.

COYNE: Okay.

JUDGE NEWMAN: For the proposed restructure for patent appeals, we approached the Judiciary committees, starting with the House subcommittee on courts. We had also discussed a national trial court structure, but this concept presented too many problems. However, the CCPA was already a national court, and the court's expertise was well regarded.

COYNE: Okay. How did it progress? The CCPA was already working and handling appeals from the Patent Office and had expertise in that area. What was the proposal that the Commission made?

JUDGE NEWMAN: We proposed converting the CCPA into a national court with exclusive jurisdiction over patent validity issues, However, the Chairman of the House subcommittee on courts, congressman Robert Kastenmeier, was not persuaded. He told us of the consistent failures and inadequacies of specialized courts, pointing to the court recently created to handle issues arising from the oil-and-gas price controls of the Nixon administration—although he and the Subcommittee's chief counsel, Bruce Lehman, were sympathetic to the problems of industrial innovation. Did you know Bruce?

COYNE: I did.

JUDGE NEWMAN: It appeared that the objections were insurmountable. Then a savior appeared, in the person of Professor Dan Meador of the University of Virginia. Professor Meador had been on leave to the



Justice Department as an Assistant Attorney General for Policy, charged to figure out how to relieve the burdens on the Supreme Court. He had recommended the formation of specialized tribunals that would resolve circuit conflicts in a few specific areas, and his proposals had found no favor. He now suggested how to achieve the purpose of consolidating patent appeals while avoiding the problems of specialized courts. He suggested combining the CCPA with the Court of Claims to form a single court, and adding all appeals of patent cases from the regional circuits—whereby the patent appeals would be about twelve percent of the total caseload.

Something like that.

Twelve or fourteen percent. And he solved other problems of specialized courts, the most significant being the assignment of jurisdiction over the entire case when a patent issue was present, thereby avoiding the delays of multiple litigation in different tribunals, and also contributing to the absence of specialization. With these problems solved, Chairman Kastenmeier introduced the Federal Courts Improvement Act, and scheduled hearings. Then our problems really began, for most of the American Bar Association vigorously objected. The ABA criticized removing a single area of substantive law from the regional circuits, pointing out that circuit differences expose national aspects that warrant Supreme Court attention. The ABA lined up its famous litigators and testified forcefully. However, powerful support came from the nation's technology-based industries, explaining the unique need for stability in patent adjudication. We prevailed in both houses of Congress, and President Reagan signed the legislation forming the Federal Circuit

COYNE: Excellent. And thank you for sending Professor Meador back to UVA because I took his federal courts class the next year in 1981.

JUDGE NEWMAN: Did he talk about it?

COYNE: He didn't spend a lot of time on it. He was very humble, but he did talk a little bit about it. Yes, it was great. And it's what piqued my interest when I got out of school to apply to this court as a clerk. So

that's great. So has the experiment been successful?

JUDGE NEWMAN: For the first decade or so, it was viewed as a spectacular success. Federal Circuit decisions elegantly resolved conflicts among the regional circuits, while supporting the incentive purpose in the Constitution. The judges from the CCPA and the Court of Claims combined to assure that patent principles were appropriately applied. The court got unusual publicity and was even credited with pulling the nation out of recession. Friends in industry would tell me of expanded research activity, with this renewed confidence in stability of the law.

COYNE: Great. Let me follow up with two other questions. You mentioned before, when you first started talking about the Carter Commission, the need for predictability. That is, whether the decision is anti-patent or pro-patent, at least you have some insight into how it's going to come out. Has the court achieved that for the industry?

JUDGE NEWMAN: In its early years, the acclaim was vigorous, enthusiastic. But I think it's taken a turn for the worse.

COYNE: Recently?

JUDGE NEWMAN: Relatively recently, yes. But I don't want to over-simplify, because today there are different kinds of technology with different characteristics, and the traditional patent law may not be easily applicable.

COYNE: Right.

JUDGE NEWMAN: I'm thinking of the digital era, and the realm of artificial intelligence. When you apply old analytical habits to quite different kinds of technology, it may be difficult to achieve reliable predictability.

COYNE: Right.

JUDGE NEWMAN: New kinds of technology need to be understood, and if need be, to rethink how the law can achieve its statutory purposes. Today's Federal Circuit simply bucks the hard questions to the Supreme Court. It's not a matter of politics.

COYNE: Maybe not. I mean, IP does tend to be one of those things that does tend to be bipartisan. For example, I was shocked personally when the Defend Trade Secrets Act passed nine months before a general election, in a presidential election year, with the Congress the way it is these days. So, there is hope.

JUDGE NEWMAN: Well, yes. I thought that it just was not a political issue, for no one was really against it, and it supported national defense.

COYNE: But when you get into obviousness or novelty or written description, those are more abstract concepts for the general public.

JUDGE NEWMAN: Yes, and they present different concepts for different kinds of technology. For instance, since you've been in this business for a long time—who would have thought Section 101 would have turned into substantive law for software inventions?

COYNE: Well, I have my own theory about how we got there, but this is about you today.

JUDGE NEWMAN: There's a need for profound thinking about how to safeguard the innovation needs of software, the balances and the trade-offs.

COYNE: But isn't that really the point? It's the balance between how much written description is the public getting the benefit

of, versus whether the invention has enough weight to it to satisfy the novelty and obviousness requirements, and justify the exclusive rights.

JUDGE NEWMAN: As well as the disclosure and enablement requirements. These requirements have been significant contributors to advances in understanding as well as applications of technology. Yet there still seems to be uncertainty about rights to use the scientific knowledge disclosed in patents. I think the European patent statute attempts to distinguish between basic scientific knowledge and the protection of commercial applications.

COYNE: Perhaps. Let me ask two other questions about some of the other government committees you've been on. You were also on the Special Advisory Committee on Patent Office Procedures in the seventies. What was the work of that group?

JUDGE NEWMAN: The director of the PTO formed a committee to advise on procedures and services, for patent activity was increasing, as was the importance to the nation of patent-supported innovation. And it must be recognized that the PTO is a complex agency, carrying a heavy responsibility for the nation's well-being.

COYNE: And the other government commission you worked on was the US Delegation to the Diplomatic Conference on the Revision of the Paris Convention. That was in the early eighties after the Carter Commission had done its work. What was the work of that delegation?

JUDGE NEWMAN: As I recall, we discussed items of possible international agreement, and the grace period received particular attention. It was interesting to hear the positions of the various countries, for the treaty provisions often had a different effect in different countries.

COYNE: We're still working through that issue today with many of our European colleagues, unfortunately.

JUDGE NEWMAN: I don't recall that we accomplished any major revisions during my participation, but the interaction with the international community was encouraging.

COYNE: Judge Newman, in addition to all these other things you've done, you've also taught at one point in your career, right?

JUDGE NEWMAN: Yes.

COYNE: Where did you teach?

JUDGE NEWMAN: I taught a course at the George Mason law school, now named Scalia Law. This school was a leader in the law-and-economics movement, for its new Dean in the 1980s, Henry Manne, had a profound interest in this activity, as an economist and a lawyer. Dean Manne had for several years been providing an economics program for judges, located at a pleasant resort with a golf course, but heavily loaded with lectures and discussion. I attended this program, and later Dean Manne invited me to teach in the evening program. We titled the course "legal and economic theory of intellectual property", and I shared the course with a classical economist, Bruce Kobayashi. We explored the economic theories governing all aspects of intellectual property law, often with visiting scholars. For example, for the copyright issues, the Register of Copyright, Ralph Oman, participated. The students at Mason were very smart and their term papers were insightful, drawing on their diverse backgrounds.

COYNE: That's great. I've been teaching at Georgetown for several years and I'm very impressed by this generation of law students. They seem very focused and very bright.

JUDGE NEWMAN: Very bright, indeed.

COYNE: Let's talk a little more about how the court came to be. Let's talk about how you came to be on the court. So, you were working at FMC at that point, and President Carter is out of office, but the Federal Courts Improvement Act has passed, and the court was instituted. How did you come to get nominated?

JUDGE NEWMAN: I'm not really sure. The Federal Circuit started operations in 1982, and an opening from the Court of Claims judges arose soon thereafter. President Reagan nominated a lawyer who had been a fundraiser but was without experience in any of the areas consigned to the Federal Circuit. The designers of the court had not thought about the succession. However, the nominee died. Then, one day I was asked if was willing to be nominated. It wasn't a position I sought, but I knew of the problem, and so I agreed. I soon received the traditional phone call from the President, and my nomination was announced.

COYNE: So, what was your nomination process?

JUDGE NEWMAN: The Senate Judiciary Committee scheduled a hearing. I didn't know what to expect, and I simply appeared. The chairman was Senator Thurmond. When I arrived at the hearing room, the senators from Pennsylvania, Senator Specter and Senator Heinz, were waiting for me, and they sat with me at the candidate's table. They told the chairman that my nomination had bypassed the traditional process, including a preliminary notice to a candidate's senators. They also assured me of their support, and they read strong statements for publication in the record. There were no witnesses, and no opposition. The Judiciary Committee voted unanimous approval, followed by unanimous approval by the full Senate. It was an adventure, but for me it was extremely smooth.

COYNE: Yeah. I think the process changed a lot with several very noticeable Supreme Court nominees about two decades ago. But some of your colleagues—I did attend some of your colleagues' hearings more recently. And they were not fraught. They were smooth and peaceful.

JUDGE NEWMAN: Yes.

COYNE: So, getting back to the fundamental issue of the court. I'm really interested in your views on how the court has gone about resolving this issue that you raised in terms of the consistency of the jurisprudence. And so the Federal Courts Improvement Act comes in. It's really a process improvement. There's no substantive change in the law. And how did it go those first couple of years? You joined the court a couple of years after it had been established. I think you were seated in 1984 and the Court had only been in existence since October 1, 1982. How did that process work in practice, in terms of trying to reconcile all of these disparate circuit court opinions?

JUDGE NEWMAN: By the time I got there, the court had already resolved several conflicts, all in directions that were correct, indeed that were elegant. I wondered if I was needed at all. Industry speedily recognized the solidity of the court and responded with enhanced activity. This received much commentary at the time, for industry was pulling the nation out of recession, with much credit to the new court. After about a decade of favorable judicial experience and marked industrial growth, industry started to look at other aspects of innovation law and practice that might be improved. After a decade of exploration, the result was the America Invents Act of 2012. This is an interesting story, and its consequences are still under review. And the cadre of innovation enthusiasts has floated several proposals for legislative change, such as adoption

of a European-style opposition practice, or imposing a few years of incontestability for duly examined patents.

We have incontestable trademarks; that hasn't been a problem. And we have the EPO system which has been in existence for decades now, where you've only got a limited period of time to file your validity challenge. And after that, you still can go to the court and try to invalidate, but you're done at the patent office.

The America Invents Act took ten years of discussion and hearings and compromises, and is receiving a hard look, particularly I observe commentary on the implementation of its estoppel provision and its claim amendment authorization.

COYNE: Let's go back to those early days and we'll come back to this issue when we finish. What were some of the substantive challenges that were difficult at that time? I remember that when I was starting my career, some of the things that were striking me were differences in the standard for obviousness, differences in the rules around novelty and damages, and wildly divergent approaches between some of the circuits. What were some of the things that struck you when you first started judging, adjudicating these cases where the conflicts were real between the circuits, that the court had to resolve?

JUDGE NEWMAN: Generally, the circuit conflicts were founded on differing policy views of the role of patents, often supported by the equities of a particular case, but producing a general statement of law that constituted binding precedent in the district courts. Even after the Federal Circuit came into being, each side can usually find supportive sentences in our precedent. Of course, this is not unique to patent jurisprudence. For me, the most time-consuming aspect of adjudication is to review all that has gone before, to try to understand the decision on review in its context, and to understand precedent in its context. Litigants of course stress what supports their side.

COYNE: Right.

JUDGE NEWMAN: And they don't tell you about the precedent supporting the other side.

COYNE: Right.

JUDGE NEWMAN: So I try to understand what was presented to the court or board whose decision is on appeal, and the foundations on which they rely. Not just in patent cases, but for our appeals of government contract disputes, property takings, employment and whistleblower cases, Native American treaties, customs assessments and international trade issues, all require understanding of their history.

COYNE: I imagine the problem is worse in areas like MSPB appeals, where there is an order of magnitude more of those cases coming to the court. And you're pointing out—you were doing it very graciously—but you're kind of pointing out that we as advocates aren't giving you the balanced view of the law. We're giving you the view of the law that supports our client's position. And that isn't always the most helpful for you to try to figure out where is the mainstream principle here. What is the best rule?

JUDGE NEWMAN: Well, that's the advocacy system. I don't fault a litigant for stressing the precedent that helps it. The other side can provide the balance.

COYNE: Right.

JUDGE NEWMAN: Either on their own facts or in general—

I think it would be some very strange kind of practice to present the argument of the

other side. Let them do their job. They're being paid enough.

COYNE: Right. Let's go back to the—what was the docket like in those early years? I recall the early eighties, that there were relatively few patent cases.

JUDGE NEWMAN: Yes. We had only a few patent appeals on each month's schedule. Although the patent cases were often on important questions with conflicting circuit precedent, they didn't dominate, and most of our appeals were in the Court of Claims area. The master plan was fulfilled—we were not a specialized patent court.

COYNE: And that's not the case now, is it?

JUDGE NEWMAN: Well, as the nation's technology industry increased, so did patent litigation in the district courts. However, not until the America Invents Act did patent appeals come to dominate out docket, mostly from the PTAB.

COYNE: I've noticed over the years there's been surges in some areas of the court's jurisdiction. I mean, when I was clerking there were the air traffic controller cases, eleven thousand air traffic controllers—this was right after the time you got appointed, when those cases were working their way through the court. There was a huge number of cases, and Chief Judge Markey managed to get them through this process with some lead cases. And you've had other surges at times. When the government has shut down, you get a lot of MSPB claims. You had harbor fees when those were active at one point. You had a lot of trade cases at times. Some of these areas seem to surge and then recede. It doesn't seem to have been as variable in the last decade or so. What is your observation in terms of how the docket has moved?

JUDGE NEWMAN: Well, since the America Invents Act, there has been a surge of PTAB appeals. Recently, the question has arisen about whether there must be an actual case or controversy to support an AIA appeal. I don't know the status.

COYNE: Well, that's an interesting comment. Because I came from a general practice for a long time, and then I'm doing exclusively an IP practice, it seems that the patent bar believes that if you lose it must be appealable. That's not the way cases go in general law. Not every loss is appealed in a general practice. And even in a general commercial practice. Why is that? What observations do you have on what you see? Do you see an inordinate number of these patent cases being appealed? If anybody's losing, they're going to take an appeal?

JUDGE NEWMAN: The statistics are that only a small percentage of PTAB decisions are appealed, although PTAB appeals dominate our docket. Of course, the cost of litigation is a factor. However, when the stakes are high, surely appeal should be available. And the Federal Circuit has been presented with some important questions of law in PTAB cases.

COYNE: Is it because there's so much at stake in these patent cases typically?

JUDGE NEWMAN: Maybe. And maybe because the PTAB proceeding isn't as expensive as a trial might be. I think probably every case has a different balance as to why people litigate and what they seek to achieve. Some cases, as you know, are filed just to place weight into a negotiation. Every case is different, with its own facts and its own balances.

COYNE: Let's talk about those different types of cases. The court has twelve or thirteen pockets of jurisdiction that are in some ways

related. For example, the Jones Act and Tucker Act cases, some government claims. But there's a lot of other areas. Boards of contract appeals, MSPB appeals, veterans claims, vaccine cases. Very disparate areas of law, with their own jurisprudence. How did you learn all of this? I mean, coming from a pretty much corporate and patent background, you have to deal with all of these cases. How did you pick up the substantive law in them?

JUDGE NEWMAN: For me, it's the most challenging part of the job, and the most interesting. I do my best—I don't cut corners—and it often takes a lot of time. I tried to learn what I need, to find the best answer. And after forty years, I've learned a lot.

COYNE: Do you rely on the advocates to provide you the information, or your clerks? This must take a lot of research if it's an area outside of someplace you feel most comfortable.

JUDGE NEWMAN: Of course I take whatever help I can get. Every area has different policy considerations, added to your own life's experience and judgment. This comes up often in the veterans cases, where the statute prescribes deference to veterans, and the argument focuses on how far to defer. So, you do your best. The requirement of judicial reliance on what's gone before has a solid basis, not only because it tells you what wiser heads might have figured out, but precedent provides rules on which parties should rely.

This leaves your life experience to tell you what is fair and just—but when this is contrary to what has gone before, what do you do?

COYNE: Those are the tough cases. So, in terms of the business of judging, have you found this personally rewarding for you? The career path you've had?

JUDGE NEWMAN: I have to say, it's constantly interesting. Every case is different. No matter what the field of law, there are different facts, different issues, different balances. So it intellectually grabs you and makes you think.

COYNE: I remember years ago talking to a district judge about sitting by designation. He was talking about—should a Federal Circuit judge be sitting by designation in other than patent cases in the district courts? He made a very interesting comment—I won't say who it was. But particularly, in most of the districts, most of the claims that are brought in federal court fall into two categories: They're immigration claims, or they're an intensifier on your sentence for committing a felony with weapons or ammunition in your pocket. And he was pointing out that for him, the patent cases were truly interesting, that they piqued his curiosity, that it was something new every time. Whereas when you're doing your thousandth immigration case, it's kind of cookie cutter and it's less interesting, for a district judge at least. Observations?

JUDGE NEWMAN: My observation is that the trials of patent cases in district courts proceed at a very high level of competence, even when the Federal Circuit finds something to reverse or remand. And I think the district judges who have sat with us found it interesting. Several of our senior judges have been designated as trial judges in district courts, and apparently, they are highly regarded.

COYNE: That's great. How would you describe the docket today? You've seen it really—literally—through almost the entire history of this court.

JUDGE NEWMAN: Well, the number of appeals is diminished. I don't know whether this was because of the effect of COVID on

the trial tribunals, in which event the diminution would be temporary—or whether the Federal Circuit is being avoided, as I've been told.

COYNE: Right.

JUDGE NEWMAN: The court's docket is mostly PTAB appeals, including appeals from examination rulings, which continued despite COVID concerns, because examination is mostly done remotely.

COYNE: Well, that's—compared to re-examination practice when it came in decades ago. I mean there's now roughly 150 cases being filed a month. There are over 1,500 to 2,000 new IPR cases every year, so if you're measuring by that statistic alone, it's been wildly successful.

JUDGE NEWMAN: Yes. I haven't looked at the statistics as to how many PTAB decisions are appealed, and I haven't seen any studies concerning relative merits—but it appears that where the stakes are high, or the question is close, appeal is more likely.

COYNE: I do look at the statistics, and that's very true. Many of the PTAB adverse rulings are appealed. Relatively few of them are not.

JUDGE NEWMAN: Perhaps they think that the Federal Circuit isn't so predictable. And it doesn't cost that much to appeal.

COYNE: Right. As you said, it depends on what's at stake. If the cost of the appeal is minimal relative to the value of the dispute, why not roll the bones.

JUDGE NEWMAN: Yes.

COYNE: Is the court near capacity today? You mentioned COVID. Does the court have ample capacity to hear additional cases?

JUDGE NEWMAN: Current hearing schedules show fewer panels on each monthly calendar, even without my presence. You remember, we used to have four or five hearing days per month, with four argued and two submitted cases each day. And now it's down to one or two days.

COYNE: Okay. One or two days per month.

JUDGE NEWMAN: And I assume the court is keeping up so that the hearings aren't unduly delayed.

COYNE: That's one discipline the court has always exercised. And I have had cases in other circuit courts of appeals and it's, for me as a practitioner, very refreshing to come here and know that I'm going to get calendared with an oral argument date, it's going to be heard and it's going to get resolved typically in about a year. How important is that to you and your colleagues in terms of keeping that timeliness?

JUDGE NEWMAN: Well, it's not been an issue, for the workload allows us to keep reasonably current. Sometimes we fall behind, for it may take longer to process opinions if there's internal controversy, but this has not been a major issue with us or the bar.

COYNE: For you, what have been the most interesting aspects of the Court's docket? You've been on this court for almost its entire existence. What do you find are the most interesting areas for you personally?

JUDGE NEWMAN: Well, I've thought about that. I was surprised that I find interesting—equally interesting—just about everything that reaches us. Some have a strong human component, and since I don't know every law as well as I think I know the patent law, I have to study and learn what others have done. I get a sense of new worlds. That makes it interesting.

COYNE: Are there areas in the court's jurisdiction that are less interesting to you? You seem to have a lot of intellectual curiosity.

JUDGE NEWMAN: I think most people who become judges have curiosity, or they wouldn't be in this position.

COYNE: Right, right. What are the biggest challenges that you face as a circuit judge?

JUDGE NEWMAN: Well, the biggest challenge is to get it right. Truth. Justice under Law. Many of our areas are important to the nation—the veterans cases, the takings and treaty claims against the United States, the government contract appeals. The Court of Federal Claims and the Court of Veterans Appeals have extremely competent judges, and when an issue arises that appears to warrant our correction, the challenge is interesting.

COYNE: You mentioned earlier about the forum shopping that led to the creation of the court. We're seeing a lot of forum shopping at the district court level these days, and my personal view is that it's not attributable purely to the patent bar. The general tort bar for years had cultivated certain courts, and that has tended to now spill over into the patent bar. Is this a good thing or a bad thing for the system in general? I'm not asking you to comment on any particular court, just overall, for I know this court is here to try to smooth out the law and be consistent. But you get very divergent results from some districts in this country.

JUDGE NEWMAN: My recollection is that we considered district court divergences in patent cases at the time we were fussing about the circuit courts—

COYNE: Yes.

JUDGE NEWMAN: —so this was nothing new. At the time, we thought that the divergences in the district courts were likely due to the divergences in the regional circuits. The Carter Commission discussed the growth of jury trials in patent cases and eventually concluded that we should concentrate on the appellate structure, and leave any trial court consolidation to the experience of the future.

COYNE: Right. You've seen it both ways in your career. You know, back in the seventies and eighties, very few patent cases were tried to a jury. Most patent lawyers would not pick a jury. And then in the late eighties and nineties and into the two thousands, it become the default position to request a jury trial. It used to be my own practice. Now there's very few bench trials in patent cases, outside of the Hatch-Waxman area. What do you think of that development?

JUDGE NEWMAN: I observed that change in direction and wondered whether it was in the hope of invoking a bias against monopolies in general.

COYNE: Do you think that bias has faded in the ensuing years?

JUDGE NEWMAN: I think it died of its own weight, as technology advanced. I think the reason the patent system meandered along was that there wasn't much litigation. Technology companies tended to settle any disputes, rather than resort to litigation. And the government's hostility to patents—you remember the "Nine-No-No's" of the Antitrust Division—was recognized as contributing to the recession by inhibiting technological innovation.

COYNE: And that really changed in the eighties when the federal government's enforcement policy toward antitrust shifted dramatically.

JUDGE NEWMAN: Yes.

COYNE: Let's talk a little bit about Supreme Court review of this court. In the early years of this court, the Supreme Court was taking very few appeals from the Federal Circuit on cert. And now they seem to be taking a steady diet of a couple to four cases every term. Do you have any observations on the why, and what the implications are?

JUDGE NEWMAN: I would welcome even more attention from the Supreme Court, for I'm much concerned about the jurisprudence of the Federal Circuit.

COYNE: Given that there are no inter-circuit conflicts with Federal Circuit decisions, the Court is really relying on intra-circuit conflicts between panels, and on dissents. How important are dissents to this process, given the narrowness of this court's feed to the Supreme Court, where you're not getting twelve circuits feeding in on an issue, but now it's just this court. What role do dissents play in that?

JUDGE NEWMAN: The statistics show that dissents are an important factor. I've counted about twenty cases in which the Supreme Court adopted my dissent or concurrence—again this Spring [2024] in a veterans case, Rudisill v. the VA Secretary, where the Court overturned the Federal Circuit's en banc decision and followed my dissent.

COYNE: You have prepared—you dissent significantly more than some of your colleagues do. Are you speaking to the Supreme Court when you do? Or are you just looking at the issues for the case in front of you?

JUDGE NEWMAN: I believe that it's my judicial obligation to speak when I think something is wrong—I don't have a specific destination. Of course, I hope that my dissent will lead to correction for the public is dependent on judicial understanding.

COYNE: Okay. There's a fellow who used to write for the California bar journal. He's named Domnarski. He used to write a monthly column, and they compiled a lot of them into a book. It's called Swimming in Deep Water, and in one of the essays that I thought was very powerful he talks about where is the law made. He looks at the Supreme Court and says well, it is the highest court, but they're only hearing eighty cases a year. And you look at the district courts, they've got thousands of decisions a year, tens of thousands, but they're just deciding individual cases. His thesis is that the law is really made at the courts of appeals, and that the public is looking at consolidating those decisions and those tens of thousands of cases and trying to tease out of it a cogent, constructive legal principle to apply society-wide. What do you think of that thesis?

JUDGE NEWMAN: I think it's exactly right. It's the court of appeals decisions that create the general legal position that then guides an assortment of factual situations.

COYNE: The Supreme Court has asked for certiorari views of the Solicitor General [CVSG] in a number of patent cases. And it hasn't always followed the SG's recommendation. Do you make anything of that?

JUDGE NEWMAN: Well, I've noticed it, because it gets a certain amount of publicity. And in such cases, my perception has been that the Supreme Court was right, that justice was better served. And so, I think to myself, bravo.

COYNE: At least they're following their principles, right?

JUDGE NEWMAN: Well, it's hard to generalize, for each case is different. But my overall observation is that the Supreme Court justices tend to conform to their sense of

justice and conscience—even in areas in which I may differ. And patent cases are not matters of conscience, but of statutory purpose, commerce, and long-established legal principles.

COYNE: You mentioned a few minutes ago that you wish the court would address some of the places where this court's been split. Are you comfortable talking about any of them?

JUDGE NEWMAN: Well, there are some areas in which the Federal Circuit has asked the Supreme Court to do what we were unable to do, notably relating to Section 101. I view this as a failure of the Federal Circuit, for the plan and expectation was that we would have the deepest judicial understanding of patent law and policy and provide the best resolution for stability and correctness.

COYNE: I think that's very important to businesses. I mean, most businesses are looking for predictability.

JUDGE NEWMAN: Of course.

COYNE: And like you said earlier, whether the answer is right or wrong in their personal view, they're better off knowing with a high degree of probability what the answer is going to be so that they can plan.

JUDGE NEWMAN: Yes, so they can do something else with their money and talent, rather than squander them on unprotectable activities that won't be commercially viable.

COYNE: Right. Or blockchain. Let's talk a few minutes about—what do you view as the role of your law clerks and technical advisors?

JUDGE NEWMAN: Well, you know because you've been there. Law clerks are among the brightest young lawyers in the nation, and the most ambitious.

COYNE: But different judges use their clerks in different ways, at least in my experience, over the time that I've been affiliated with the court. You know, some judges rely on their clerks more heavily than others. Some use them for certain tasks but not others. What do you view of the role of the law clerks and technical advisers?

JUDGE NEWMAN: I don't have a simple answer to that.

COYNE: Okay.

JUDGE NEWMAN: We always have a lot of work to do, and I overload these bright young people, full of energy, who never sleep. As an example: a particular fact situation may inspire me to look at an area from the beginning of time, maybe back to Venice or Sybaris, to explain the law and the policy—and I draw on the law clerks to pursue such adventures. Of course, there is a good deal of researching and writing, and my law clerks help with everything.

COYNE: What about the role of counsel? We talked a little bit about this before that, you know, an advocacy system is an adversarial system. And you're getting, at times, a biased view by each of the counsel. Is it always helpful, or are you able to work through the holes that are left in counsel's argument? I mean, you've seen thousands of them now, I bet you're getting pretty good at picking out where the holes are.

JUDGE NEWMAN: Yes. As a judge, I've learned to be skeptical of everything. In turn, I expect each side to focus on their most supportive positions, for they have only fifteen minutes of oral argument. The adversary system is supposed to control overwrought arguments, and often the judges' faces will reflect how the argument is progressing.

COYNE: I'll vouch for that. Having done a number of the appeals during COVID by telephone, it's a much thinner process than being in the courtroom and seeing all of you live.

JUDGE NEWMAN: During the COVID delay there was much pressure from the bar to return to live hearings. I hadn't realized that you all were so adept at reading our faces.

COYNE: Well, we're trying to adjust our argument to be as persuasive as we can.

JUDGE NEWMAN: Sure.

COYNE: And when everybody's taking turns asking questions on the phone, you get a lot less information as an advocate.

JUDGE NEWMAN: Yes.

COYNE: It makes it harder.

JUDGE NEWMAN: I think that for you as advocates, that's part of the fascination of this practice—observing the psychological impact of your theories, your power of persuasion, watching what works.

COYNE: Right. So you sound like you're supporting staunchly the adversarial process. How critical is the adversarial process to getting the right result in the cases?

JUDGE NEWMAN: Well, I can't think of any better all-purpose approach. Adversary argument helps the judge not only to understand the facts and how they're affected by the law, but also with figuring out the equities, the search for justice. A critical consideration for litigants, and it varies with the source of the appeal, is the placement and the weight of the burden of proof—for its variation reflects the societal view of how each area should be balanced. The adversary system also helps the judge to understand any human or societal aspect. Perhaps this will save judges from being replaced by robots, for I read commentaries illustrating how a robot would have reached a more legally correct result.

COYNE: Well, it's interesting that you say that, because there's a lot of psychological research that's been done. If you strip emotion out of decision-making, what turns up is you can't make decisions. Yet, we've got so many of these AI tools these days where companies are stating that AI will take the emotion out of the decision. It seems somewhat inconsistent.

JUDGE NEWMAN: Perhaps the inconsistency is in the word "emotion." It's not emotion; it's justice.

Compassion. For both sides.

The judicial obligation is to find the right answer, but fairness should be a factor in the right answer.

COYNE: Let's talk a little bit about judicial independence. One of the things that I think is a critical part of the appeals courts in this country is that, you know, judges reach their own decision and then confer with each other about it. Whereas, for example, the current PTAB system is a totally collaborative process all the way, with the judges deferring to each other. One will take the lead on resolving the case, and the others may or may not defer as they go along. How do you feel about the role of judicial independence in the process—to getting at the right result?

JUDGE NEWMAN: This appears to be a flaw in the way the PTAB has organized its operations, for the legislative history suggests a different intent. The proponents emphasized that each case would be assigned to a team of experts in the technology, who would collaborate to reach the right answer. The process was intended to be sufficiently

reliable as to support estoppel in any court proceeding, based on the expertise of a team of experienced examiners who know the technology and the law.

COYNE: Let's return to the workings of the Federal Circuit. It appears that in the early days of the court there was little or no disagreement among the judges, with collaboration and conversation among the judges. Has that changed?

JUDGE NEWMAN: Yes, it has changed. I don't know why, but I watched it slip away. The court doesn't have the sense of mission with which we started, when we believed that the Federal Circuit could make a difference, in judicial service to the nation.

COYNE: So how important do you think that judicial independence is to the process to getting it right, to getting a fair result, a just result?

JUDGE NEWMAN: Judicial independence is vital.

COYNE: We talked already about inter-circuit conflicts. Let's talk a little bit more about dissents. We talked about dissents in the context of the Supreme Court. But how important are dissents in terms of your colleagues?

JUDGE NEWMAN: I don't know the depth of their views. In general, having a difference of opinion doesn't change the result reached by the majority. A split decision is still the law.

COYNE: Right.

JUDGE NEWMAN: For me, some commentators have observed that I write more dissents and have criticized it as an act of vanity to insist on saying what I believe, rather than just going along.

COYNE: You have dissented frequently. I doubt that it's simply an act of vanity. Isn't there some ability to at least make it clear for the next case or a similar case that comes down the road later?

JUDGE NEWMAN: I hope so. Dissents often serve to flag the aspect that persuaded the majority and may assist in distinguishing future situations. I believe that exposure of the view that failed to carry the court is a useful contribution to jurisprudence.

COYNE: So, let's come back to the America Invents Act. Has it been successful?

JUDGE NEWMAN: On balance, I like the concept of having an expert agency review, to confidently and economically review the patent that has been examined and granted. That was the purpose of the PTAB. However, I hear concerns, and the continuing objection that when a patent has been examined and granted, even the PTAB review should be on the standard of clear and convincing evidence. This is a topic for practitioners, and the concerned public, to consider.

COYNE: Right. You know, in the district court it ought to be clear and convincing.

JUDGE NEWMAN: By design it's easier to invalidate in the PTAB. According to the legislative history, the supporters stressed that the PTAB proceeding would resemble a fresh examination. The intent was both to facilitate removing patents that should not have been granted, and to provide finality for properly granted patents. I would be interested in a profound evaluation of whether these purposes have been achieved.

COYNE: If you look at the EPO system, which has been in operation now for decades, if I were a quality control engineer looking at this, this would be sort of the result I'd expect. You'd get about a third that are

affirmed without modification. About a third are modified. And about a third are invalidated. And not knowing anything more about the individual patent than that, that seems like a pretty effective qualitive check. Yet, when the PTAB proceedings came in under AIA, during the first couple of years the institution rate was in the seventy to ninety percent range, and the invalidation rate was in the seventy to ninety percent range. That's now come down, but they still come into the forties and sixties most months for both institution and for invalidation. This has resulted in thousands of patents being challenged. Tens of thousands now. Is that good for the system?

JUDGE NEWMAN: Well, that's what needs to be studied. I predict there's not a simple answer, for there are burgeoning arguments on all sides, and the court has construed some provisions in ways that have been criticized as departing from the statutory purpose.

COYNE: Right. So, we need to study whether the system is achieving an appropriate balance the way it's currently configured. You've identified two things, three now—the independence, the difficulty of amendment—and I don't disagree with you, it's extremely difficult. Even though the prior director modified the rules to try to make it easier, it's still a very cumbersome process. And it is not used; it's fewer than five percent. And so, it isn't coming out like the EPO process, if that was aspirational. Is it working for all of the stakeholders?

JUDGE NEWMAN: Obviously not. It's something that I think the patent community needs to focus on. To the extent that it's not operating as it was intended, or not working as well as it might, or is not fully achieving its purposes, it needs attention.

COYNE: Okay. We talked a little bit about the impact that the PTAB process has on this court's docket. These appeals tend to be more complicated, I would take it, than a lot of other areas of the court's jurisdiction, like veterans cases, MSPB cases, even government contract appeals—I'm not talking about a major defense litigation, which I know can be very complicated. What impact has the PTAB appeals had on the court and its ability to get its work done? I know that you mentioned that the number of appeals has fallen, but the complexity of the cases on average seems to have gone up.

JUDGE NEWMAN: Yes, it has gone up. Not just in the patent area, but everywhere. It may be because today only close questions are likely to be appealed. And it may be that because of the perceived unpredictability of Federal Circuit decisions and the high cost of any form of litigation, settlement or closure is preferable to appealing. You either give up or you work it out.

COYNE: Do they take more time for each judge's chambers to resolve based on complexity?

JUDGE NEWMAN: I can't speak for other judges, but for me, if it's more complex it takes more time. It's sometimes amusing to observe how the appellee will stress the complexities of the case on which it prevailed, while the appellant will stress the simplicity and judicial perspicacity. For me, I try to figure it out. We do what we can.

COYNE: With the resources that you have.

JUDGE NEWMAN: Yes.

COYNE: Do you see any—we talked some about the trends you've seen in the past. Do you see any trends emerging in the court's docket now?

JUDGE NEWMAN: Well, I expect that the change in *Chevron* deference will affect all of our administrative areas, but it's too soon to know whether it will affect the number of appeals, or only the standard of review.

COYNE: Let me stop here, because the last two questions I had concerned the future of the patent system, and I suspect, from what you said earlier, that's probably something you'd want to think about a little more.

JUDGE NEWMAN: Yes. I'm thinking about the future of the patent system. And I'm thinking about the future of the Federal Circuit.

COYNE: Let's call this Chapter One of your history. Then in Chapter Two we can turn to your jurisprudence and the Federal Circuit. But we can't ignore the present situation, where your colleagues have removed you from judging although you are an active judge with life tenure. What is the situation?

JUDGE NEWMAN: I'll be brief, for there are lots of details. In March 2023 the chief judge told me that the court had decided that unless I stepped down as an active judge, I would hear no more appeals. I was astounded, and I declined. Since then, I have been omitted from all Federal Circuit panels and *en banc* proceedings. I have been silenced, in viewpoints and in dissent. The issues are constitutional, and include judicial independence, the governmental balance, and critical aspects of judicial and personal integrity. The future of the Federal Circuit appears to be at stake. I am seeking review in various forums, and my appeal to the DC Circuit is now in the briefing stage.

COYNE: There will be much food for Chapter Two.

JUDGE NEWMAN: Yes.

II. INTELLECTUAL PROPERTY LAW AND INNOVATION FOR THE CLIMATE CRISIS

By Dr. Caoimhe Ring*

Dr. Caoimhe Ring, a lecturer in Intellectual Property Law at University of Bristol Law School, presented this lecture on June 13, 2023, to the Federal Circuit Historical Society.

Transcript has been edited for clarity.

CHRIS COTROPIA: Welcome, virtually, to the Dolley Madison House. It's been recently refurbished—as you can see if you take a look at the background behind me and Griff—and welcome to the Federal Circuit Historical Society's Spring 2023 Lecture. I'm Chris Cotropia. I'm a Professor of Law and Director of Intellectual Property at the University of Richmond, but I'm also the Editor-in-Chief of the Federal Circuit Historical Society's *Journal*. It's my pleasure to introduce the mastermind behind all of these great lectures, Griff Price. He's a board member of the Federal Circuit Historical Society. He also serves as the Executive Editor of the Society's *Journal*. Griff, I turn it over to you to introduce our Spring Lecture speaker.

GRIFF PRICE: Thank you, Chris, and I've been asked to ask all of our attendees to turn on your cameras so we can see you when you ask questions. During the speaker's presentation, you can submit questions to the chat box, and Chris will plan to ask as many as we have time for.

Thank you again, Chris, and good afternoon to everyone—Judges of the Court, members of the Federal Circuit Historical Society and Bar Association, and guests and members of the public. On behalf of the Society, I would like to thank the Court for its hospitality in making this virtual representation of the Dolley Madison Parlor on the Court's campus available for our lectures. As Chris mentioned, it has recently been redecorated and refurbished and truly is an elegant background for this event.

First, a quick announcement about another upcoming event. Later this month, the Federal Circuit Bar Association will conduct its annual Bench and Bar meeting at the Broadmoor in Colorado Springs. On Friday, June 30, the Historical Society will present its traditional luncheon speaker at that meeting. Our speaker will be Major Trent Bradford of the Air Force—a professor of law at the Air Force Academy—who will discuss the law of cyber neutrality, that is, the history of neutrality and its evolving but still ambiguous application to modern activity in cyberspace. We hope those of you who attend the Bench and Bar will join us for Major Bradford's talk, which will be posted on the Historical Society website after the meeting.

So welcome, everybody, to our 2023 Spring Lecture on a very timely subject by

* Lecturer, University of Bristol Law School and DPhil, University of Oxford.

a very knowledgeable speaker on the topic. All of us know about the threat posed to our civilization, indeed, to the future of the world, by climate change. For those of us in the Eastern United States, last week the storm clouds of that threat gathered literally, not figuratively, on our horizon, with the sun dimmed at mid-day by clouds of smoke from wildfires in Canada.

Humanity has faced such threats in the past. In our lifetimes alone, the development of nuclear weapons and the scourge of a global pandemic have confronted our governments' business and scientific communities, as well as our societies at large, with the reality of mass and potentially boundless death and destruction. We know that impending climate change is of that nature.

What can we do about it? As intellectual property lawyers, we may view ourselves as trustees of the laws that protect exclusive rights to inventions of potential use in combatting climate change. Is that enough? Indeed, do such exclusive rights impede the use of such technologies for countering climate change? If so, how can such technologies be made available for that purpose? Do the histories of past crises, medical and military and otherwise, offer lessons for the present?

Our speaker today is Caoimhe Ring of Oxford University. Ms. Ring is a Doctor in Philosophy in Law candidate, a tutor at St. Peters College, Oxford, and a lecturer in intellectual property at the University of Bristol. Her doctoral thesis examines the impact of intellectual property rights on the diffusion of climate-friendly technologies, drawing on 41 interviews with climate-friendly inventors and analyses of over 280 patent applications. Her work is focused on access to knowledge and how knowledge production practices shape our response to the climate crisis; and she has recently published a thoroughgoing and well-received article on this topic in the *Harvard Journal of Law and Technology*. It's my distinct pleasure to introduce Caoimhe Ring and turn the microphone over to her.

CAOIMHE RING: Thank you, Griff, for such a kind introduction, and thank you to all of you gathered here today. It's a pleasure to have this opportunity to speak with you all. As you can see, I have the virtual background of the Dolley Madison House behind me and it's also a place that has a special significance to the topic of today's talk. Griff told me about the connection between the Dolley Madison House and Tayloe House and the history of the Manhattan Project, which is something I will speak about today.

The title of this lecture is "Intellectual Property Law and Innovation for the Climate Crisis."[1] As Griff mentioned, climate change is without a doubt the most pressing societal issue facing us today. It calls for new technologies to mitigate the effects of global warming, and solutions which will help us as we adapt to a warmer climate. When speaking about climate change, however, Intellectual Property Law does not immediately come to mind. As a set of technical, fine-grained rules which determine the ownership over intellectual creations, it can appear obscure or even tangential to the issue of global warming.

To start thinking about this relationship, I want to pose a series of questions. So, for one, how can previous crisis situations inform our thinking about the relationship between intellectual property law and climate change? What role can we expect IP to pay in the development of new climate friendly technologies? And is intellectual property law suitable in its current form or otherwise to incentivize the next climate technology revolution? To put matters sim-

ply, what these questions boil down to is the extent to which we can leave innovation to the market or the degree to which we need state technology programs to encourage climate friendly innovation.

Intellectual property law is, of course, a market mechanism. It represents a choice of placing innovation in the hands of markets. Now, while we may say this is a somewhat blunt way of thinking, and that innovation never really has such a clear-cut relationship, I want to start with this framing, because we are at a critical point in how economists, lawyers, and policy-makers view IP's role in the innovation needed to respond to certain grand challenges facing us today. In particular, the COVID-19 pandemic has had lasting repercussions on innovation policy, challenging conventional thinking as to the efficiency of market-led mechanisms for innovation.[2] The strong public-sector steer behind COVID-19 vaccines demonstrated the successes of so-called mission-oriented or proactive innovation, and these programs have revitalized interest in how we use the state to direct big science towards big problems.[3] In some quarters, this has led to calls for a new Manhattan Project for climate change, a dirigiste mission to invent new climate-friendly technologies.[4]

This rhetoric, however, leaves intellectual property law to the wayside, and does not answer how this crucial part of our innovation system features in what may be the greatest challenge for innovation policy of all time. If there's one intervention in this debate that I want to make today, it is to suggest that intellectual property law may have an important role in responding to part of our climate challenge. My argument is that we need intellectual property rights to encourage the spread of technology or scale up what we might call "technology diffusion." That is, intellectual property laws lead to climate-friendly *innovation*. Innovation is often used as a generic term, although in the study of technology, a distinction is drawn between invention, pre-market activity referring to research, and innovation, which describes activities taking to encourage the commercialization and diffusion of technologies.[5]

So, having framed today's discussion in terms of the extent to which innovation should come from the market or the state, I will start by giving background on the relationship between intellectual property around climate change within existing academic literature. I will then pick apart why it is that technology programs of the past, like the Manhattan Project or the Apollo missions, are being called on for climate change, including what these programs achieved, and why climate friendly innovation—perhaps more than crises of the past—calls for a strong market-led innovation response using intellectual property law among other market mechanisms. Now, while access to technology is an important and pressing issue, this talk focuses specifically on IP as an incentive mechanism. Finally, I will conclude to discuss future directions in understanding how intellectual property law can promote the spread of climate friendly technologies.

In March of 2023, the Intergovernmental Panel on Climate Change released a glimpse of its forthcoming report, which provides a damning description of the state of the climate crisis. This draws together the latest expert data on the physical science of climate change. Currently, 1.1 degrees of global warming is confirmed to have taken place since industrialization, and we are now on track to exceed 1.5 degrees within the next few decades.[6] Already, climate extremes are being experienced around the world, and changes such as sea level rise are projected to continue for centuries if not millennia. In addition to confirming

the likely consequences of our current trajectory, the report sets out the only certain route to halting it: limiting human-caused global warming to a specific level requires reaching at least net zero carbon dioxide emissions. In other words, to avoid catastrophic climate change, we need to remove about as much carbon from the atmosphere as we produce each year.[7]

Technology is key to reducing, as well as extracting, CO2 emissions. On the one hand, this calls for novel carbon dioxide removal technologies, which can extract and store carbon dioxide emissions durably. On the other hand, we should be cautious about the desire to reach for silver bullet solutions, or the idea that we can produce some new game changer invention to solve the climate crisis. In fact, many of the solutions that we need are either already in existence or call for behavioral or organizational changes, including water management solutions, recycling, making changes to our diets.[8] More importantly, for the purposes of this talk, while many of the technologies we need are already at hand, they are not at the scale that we need to respond to this crisis. This includes technologies such as renewable energy—which is a mature technology, but one which has not fully taken root in energy systems around the world. For instance, the International Energy Agency predicts that within the next fifty years, if current trends continue, the proportion of renewable energy sources could rise to sixty percent globally.[9] The question is, how do we get that to sixty percent? We must remember that while new technology will be vitally important, existing solutions can have tremendous impacts, but the path to their broad uptake is complex. While there are many thorny issues about how to encourage scale-up and diffusion throughout society, as I will discuss at the end of this talk, intellectual property may be an important tool in our arsenal to scale-up existing technologies. This recognition, however, has not been adequately dealt with by existing legal literature.

At this point, I will give a quick overview of the legal literature on this topic to date to situate our discussion and to explain why it is so important to think about how IP functions in a broader innovation system. Mainstream legal literature on IP and climate change first emerged as a response to discussions at the Conference of the Party meetings under the UNFCCC, the United Nations Framework Convention in Climate Change.[10] These discussions began as members from lower-income nations noted the possibility that intellectual property laws could interfere with climate technology transfer obligations from higher-income nations to lower-income nations. Over the early to mid-2000s, various proposals were set out about the possible inclusion of provisions on intellectual property laws, including patent pooling, royalty-free licensing terms, compulsory licensing terms, or even retrospective patent revocation, with parallel discussions occurring at the World Trade Organization.[11]

Ultimately, no language to limit the scope of IP protection over climate-friendly technologies could be adopted, in part because no consensus could be reached. On one side of the debate, higher-income nations were staunchly opposed to the weakening of IP rights, being concerned that this could diminish market incentives to invest in technology. On the other hand, lower-income nations were clear that IP may raise the cost of access to technology and impede its widespread dissemination. The associated legal literature is vast and cannot be faithfully summarized here today. However, there is a common strand running through much of this work, which is the idea that IP, and patent rights specifically, are likely to

interfere with progress on climate change, although there is little agreement amongst scholars on the solutions to this problem. One way to navigate this literature is to look at the different stances as being divided into a camp of pragmatists on the one side, and patent skeptics on the other side. To offer an indicative introduction to the more skeptical position, we can refer to a 2018 article where Ofer Tur-Sinai captured what we might call the 'patent skeptic' stance.[12] In his view, because patents are incentive mechanisms that rely on current market demand, patents are unlikely to encourage significant research in climate-friendly technology. This comes down to failures of the pricing system that purportedly motivates the patent incentive. That is, because no price is assigned to the social good of a healthy environment, and because there is no adequate pricing of the social harms of pollution or environmental degradation, climate-friendly goods are underpriced in market settings. Consequently, patents, which rely on price signals to direct innovation, will not spur adequate investment into climate friendly goods.

These ideas go back to familiar economic foundations of externalities and market failures, which are common in our thinking about intellectual property, and which Nobel-prize winning economist William Nordhaus refined through his analysis of the social cost of carbon and its integration into economic modeling.[13] Intellectual property law scholars, for their part, acknowledged that if the market does not create adequate conditions of demand, then patents or other forms of intellectual property law will not encourage this sort of innovation. State intervention in the form of regulatory standards, prizes, or rewards, by contrast, do not rely on market demand in the same manner, and draw on whatever criteria are set by public planners. State interventions could, in the view of certain advocates, capture the social value of environmental protection and promote climate-friendly innovation such that climate prizes or similar mechanisms may be preferable to intellectual property rights. Again, this divide between patent skeptics and the pragmatists returns us to the question of whether to leave innovation to the market or to use a state technology program. Patent skeptics would probably tell us intellectual property law alone is not going to be the answer.

A less critical perspective is taken by what we may call the 'pragmatists.' They are those who acknowledge the shortcomings of intellectual property law as a market-based incentive mechanism, but who normatively advocate for more incremental changes to intellectual property law. The reform proposals in this literature range from the use of public order exceptions to exclude environmentally damaging technologies from patentable subject matter, to less extreme measures, such as patent pooling or the expansion of systems which are already in place—including patent application fast-tracking systems where climate friendly technologies gain a certain classification and are fast-tracked through various registration systems, including in the United States.

The diversity of proposals in this literature point to the lack of agreement on how to make intellectual property law fit for purpose for climate change, and there are certain conceptual issues with these accounts, which I have written about elsewhere. However, much of the literature focuses on invention, saying less about the other side of the story of technology uptake, commercialization, and diffusion. At the same time, mechanisms to intervene in markets such as mission-oriented policies using prizes and funding have grown in popularity for climate change, especially in the aftermath

of the coronavirus pandemic. Examples of this more dirigiste approach in the climate context includes the "Earth Shot Prize," sponsored by the Duke and Duchess of Cambridge; "Mission Innovation," a global clean energy research and development fund; or the "Green Climate Fund," which up until July 2020 had amassed up to $10.3 billion in private and public sector support for climate-friendly technologies in lower-income nations.[14]

With the apparent rise of dirigiste innovation policies for climate change, the question that remains is where intellectual property law is going to fit in the future in these shifts. One way to answer this question, I believe, is to look to precisely what this mission-oriented model of innovation is, and what it is *not*.[15] With a clearer vision of this model and its limitations in mind, we can begin to understand where IP may feature in a program for climate friendly innovation. At this juncture, I want to pivot to a technology program which epitomizes the mission steer and has a special significance to the Federal Circuit Historical Society at Dolley Madison House: the Manhattan Project, or the mission to invent the atomic bomb. The Manhattan Project reflects one of mankind's greatest technological feats, however, much like Alfred Nobel's discovery of dynamite, it had detrimental consequences for humanity. On the sixth of August, 1945, the first atomic bomb, Little Boy, was dropped in Hiroshima, killing 70,000 people at impact, and many more thereafter.[16] The lamentable repercussions of the atomic energy program followed what was otherwise a period of incredible scientific advance. Indeed, the Manhattan Project and the Apollo Moon landings are by far the most famous examples of mission-oriented research programs.

But what exactly is mission-oriented innovation? In outline, it describes public sector programs geared towards achieving a specific technical goal. They use frontier knowledge or blue skies research, using risk-taking, goal-oriented programs, which create an overall direction for innovation. Key to the designs of these programs is that room is kept for experimentation, and many different research programs are followed at once, on an outcome-based model of research. In Mariana Mazzucato's words, innovation missions use "big science to solve big problems." Mariana Mazzucato has been extremely influential in popularizing these ideas. Her 2013 book, *The Entrepreneurial State, Debunking Public vs. Private Sector Myths*, demonstrates the state's often intimate involvement in the great innovations of contemporary history, including the technologies that have proved foundational to personal computing and semiconductors. These technologies were, of course, instrumental to the success of Silicon Valley—an example which is frequently invoked in popular culture to depict the efficacy of unbridled markets and entrepreneurial ingenuity.[17] Since then, her work has been fashioned as a call arms for the state to take on a more proactive role to address moral crises, such as global warming.

The story of the Manhattan Project begins with a rather obscure research body, one which proved foundational to reorganizing federal research in the United States. This was the Office of Scientific Research and Development, or "OSRD." The OSRD emerged initially due to concerns from the scientific community as to the technological disadvantage of the U.S. by comparison to enemy Germany. At the forefront of this movement was Vannevar Bush, a prominent scientist and engineer, who led a coalition of experts to appeal to President Roosevelt on the twelfth of June, 1940, to revitalize American research efforts.

Perhaps the greatest innovation of the OSRD was an organizational one. It operated a top-down structure with two pillars. First, a direct line of communication to the executive.[18] As OSRD director, Vannevar Bush reported directly to the president, giving OSRD mandates more legitimacy with civilian scientists and the ability to fund research of direct relevance to the war effort. The second pillar of the OSRD communication structure was its use of public-private sector partnerships, which were arranged around flexible research contracts. The OSRD research contract was almost a hybrid between a research contract and a grant. Researchers were contracted to achieve overall outcomes rather than to meet deliverables. These contracts also used IP provisions to create incentives for civilian researchers whilst ensuring that government agencies retained enough control over new findings and inventions through licensing rights. Among other models of licensing, under one format, contractors were allowed to retain title to patents developed during the grant period, while the U.S. government retained an irrevocable royalty-free license to make use of those inventions for military, naval, or national defense purposes.

Now, as the feasibility of the atomic bomb became clearer in light of British research, the Manhattan Project was formed over late 1941 and early 1942. The involvement of the Army Corps of Engineers into the Manhattan Project signaled its transition from a research program to an all-out applied technical program, making large-scale funding increases. To get a sense of just how active the public sector became during this time, investment in the Manhattan Project grew from an initial $6000 in February 1940 to more than $2 billion in 1942.[19] Not only were massive amounts of funding dedicated to atomic energy research, a substantial portion of the American public also became involved in the program. So, at its height, it had approximately 130,000 civilians working on the project, in what probably has been one of the most ambitious public sector technology programs of all time.[20]

Now, while the Manhattan Project exemplifies what can be achieved by this sort of mission-oriented innovation program, the lunar landing captures more clearly what it means to form a goal or mission for technology policy. And, in fact, the overall design of the National Aeronautics and Space Administration, or NASA, was transformed in response to this technical priority, which became enmeshed in the pursuit of American technological superiority during the Cold War.[21]

So, NASA's story begins in 1958, when it was formed by President Dwight Eisenhower, at the same time as other research bodies which are famous to this day. This includes "DARPA," or the Defense Advanced Research Projects Agency, which famously contributed basic technologies behind information technologies and the Internet. NASA's transformation as part of an innovation mission came in the early 1960s. President John F. Kennedy was inaugurated in January 1961. By April of that same year, Soviet Astronaut Yuri Gagarin made the first successful manned orbit of the Earth in a symbolic feat of Soviet technological prowess. In response, Kennedy asked his advisors to provide a space mission which promised dramatic results which the United States could win.

The lunar landing was posed to him, and in May of that year, famously, Kennedy laid out the lunar landing as part of his address to Congress on urgent national needs. In that speech, he stated the famous words, "I believe that this nation should commit itself to achieving the goal, before this

decade is out, of landing a man on the moon and returning him safely to the earth."[22] Kennedy's endorsement of the mission set in motion the reorganization of NASA to focus its attention on the lunar landing, in a project which cost an estimated $19.4 billion over 1960 to 1973.[23]

Kennedy's impact in terms of making this an innovation mission was, in historian John Logsdon's words, to mesh what was a technical goal with a "unique and transcendent American conception of national purposes."[24] Mariana Mazzucato, in her book *Mission Economy, a Moonshot Guide to Changing Capitalism,* described some of these changes to NASA that occurred during this time. She argued that the setting of a clear communication protocol was a huge part of its success. George Mueller, then head of the Office of Manned Space Flight, created a special communications system that linked diverse groups in the organization to encourage knowledge sharing.[25] NASA also used quite an active system of public procurement, and huge programs of public spending and research contracts were entered into. Importantly, NASA didn't fully outsource this work; they maintained very close relationships with partners and, put together, became a challenge-driven body dedicated towards landing a man on the moon.

To examine the impact of Apollo and Manhattan, we might understand why people are now looking at these programs and trying to apply them to the climate crisis. First, one of the great consequences of these projects was the realization that science and technology play a fundamental role in advancing economic growth and overall prosperity. Vannevar Bush, the head of the OSRD during the second World War, wrote a famous report, *Science: The Endless Frontier*, and in this, Bush advocated for an expansion of government support for basic scientific research, eventually leading to the creation of the National Science Foundation. This developed public consciousness surrounding the significance of basic research, and the need to balance the production of practical outcomes with the innate value of curiosity-driven science. These programs demonstrated wide-ranging benefits that continued to emerge from the use of big science to tackle big problems, such as the atomic bomb and radar, which all had broader influences on science and technology after the war.

More could be said about these famous examples, but with outlines of these programs in mind, we can answer what it is that a mission-oriented program could deliver for the climate crisis. So, public technology programs already play quite a significant role for climate change, and they will continue to be important particularly in the energy transition. However, the Manhattan and Apollo missions can be distinguished from the climate crisis, in that these are programs that had a non-market character. That is, climate-friendly technology adoption and diffusion principally occurs amongst the civilian population and the government is not the purchaser of the technologies we need to reduce global warming. In contrast to former innovation missions, the scale of innovative activity needed for climate change outstrips the public sector innovation missions of the past—and it can only be met by a public technology program in concert with a strong private sector response.

Now to expand on this idea, I draw on the work of economists David Mowery, Richard Nelson, and Dominique Foray, who dedicate an entire research policy special issue to this question, explaining why the Manhattan Project is not an appropriate model for climate change due to the non-market character of this defense style innovation program.[26] I will first make a number of observations on

their work before discussing what this tells us about the role of IP in addressing the climate crisis. For one, they explain that the government was effectively the sole customer of technologies developed during the Manhattan Project because the government funds, and then adopts, a new technology it has developed, offering technology producers an assured market. This means that innovators obviate certain uncertainties associated with offering a new technology.

By contrast, climate-friendly innovation has a market character in that there is no dominant producer or consumer of climate-friendly technologies. Its production and adoption is much more decentralized, with a greater number of diverse market actors, which are more sensitive to variations in price, product quality, and conditions of competitive supply. The success of climate-friendly innovation will therefore ultimately depend on market adoption in addition to a largescale public procurement program and other incentives for climate-friendly innovation. This is because carbon dioxide emissions reductions need to occur throughout all activities of ordinary life and will necessarily rely on private adopters. A few more detailed criticisms can be made to drive the market character of climate-friendly innovation home. Dominique Foray and his co-authors note that mission-oriented programs historically targeted a specific technological capability, which once achieved would signal the end of those programs. There is no comparable silver bullet technology for climate change, and nothing could signal the end of a climate innovation mission. Luc Soete and Anthony Arundel also take issue with this comparison, focusing on the role that public procurement played in furthering other government technology programs.[27] The Manhattan Project and Apollo missions were often isolated from the broader economy, whereas climate-friendly innovation invariably involves some combination of procurement with many other policies. There are further issues that go beyond the market character of climate-friendly innovation. Joseph Stiglitz has critiqued the idea that we can use mission-oriented innovation for global problems like pandemics or climate change as even the most ambitious programs, such as landing a man on the moon, do not face those same complexities.[28]

So, a government technology program like a Manhattan Project for climate change is necessary, but only offers a partial solution. It would develop new climate-friendly inventions, but cannot deliver the overall *innovation* needed. It's at this later stage that we might expect intellectual property rights to play an important role. So, what role can we expect IP to play? My comments on this point are preliminary only, given the evidence on how intellectual property rights impact climate-friendly innovation is still emerging, as was recently highlight by the Intergovernmental Panel on Climate Change.[29] On the one hand, when thinking about the role that intellectual property may have on the diffusion of climate-friendly technologies, we can think about traditional means of promoting diffusion such as through licensing. However, my research also touches on non-traditional means in which intellectual property rights are used to promote the spread an of technology, including the use of patents as signals to attract financial investment by technology start-ups.

The theory of patent signaling was first developed by Clarisa Long, whose work has since been supported by empirical research.[30] In her theoretical model, Clarisa Long challenges the assumption that frames patents as means to protect the exclusivity of inventions. In doing so, she attempts to shift her analysis from the product mar-

ket to capital markets, drawing on signaling theory in corporate finance literature.[31] This account holds that firms use signals to impart positive qualities about themselves to outsiders without directly conveying this information. For instance, the maintenance of increased dividend payments may signal a positive financial outlook to outsiders. Long draws on these ideas to suggest that it's possible that patents signal innovative capabilities to potential investors, and that those signals can be used by an outsider to distinguish between an innovative and non-innovative firm. As a legal entitlement which undergoes a process of review, patents are deemed to be credible sources of information by third parties.

To touch on one empirical study that support patent signaling, the largest project to date includes the Berkeley Patent Survey, which was administrated to 1,332 high-technology start-ups formed between 1998 to 2008 in the Silicon Valley region.[32] Among other findings, it noted that firms do not patent simply to prevent people from copying their inventions, but that patenting is often an important means to attract investment. When asked to rank reasons for patenting from most important to the least, respondents answered in the following order, starting with improving chances of securing investment, enhancing reputation, improving the quality of firm liquidity, and ending with improving the start-up's negotiating position with other companies. These findings support Clarisa Long's theory of patent signaling, and this is something I have found in my empirical work on climate-friendly technology start-ups.

The literature on patent signaling and how patents aid diffusion cannot be comprehensively covered in today's talk. However, I believe that these non-conventional uses of patents to attract investment highlight the important role that intellectual property rights have to play in promoting the adoption and diffusion of climate-friendly technologies. My provocation here is that IP may step in where an innovation mission drops off. That is, innovation missions can deliver invention, but that intellectual property rights can promote *innovation*, and can be used as a means to scale up the dissemination of those technologies by encouraging investment in technology start-ups and the formation of partnerships with incumbent technology providers. In my research, I found that renewable energy entrepreneurs patent to help them attract investment to scale up the demonstration of their activities, and attract acquirers, partners, and investors. This is still emerging research, and these findings by no means suggest that a broader public technology program is not needed, nor does it suggest that patents and other intellectual property rights may not impede the diffusion of technologies in other contexts. Understanding the role that intellectual property law could play in the fight to disseminate new climate-friendly technologies matters, because as mission-oriented research grows in popularity, there are many unanswered, burning questions about how to encourage widespread diffusion of climate-friendly technologies. In the aftermath of COVID-19, it can be easy to think of IP as more of a barrier to the spread of technologies when it results in monopoly power, but there are other contexts where intellectual property rights play different roles such as the formation of technology partnerships. IP is a double-edged sword: it has mixed and context-dependent impacts on diffusion.

In short, my key argument has been that innovation missions produce inventions, but that market mechanisms such as intellectual property rights are needed to promote their wide uptake across society. As I discussed, public sector programs are convention-

ally thought to be more amenable to risky research. However, our pre-existing models of mission-oriented innovation are largely premised on innovation with a non-market character, and thus tell us little about how to diffuse technologies in the context of climate change. It is important to say explicitly that a government technology program is certainly a large part of the solution, but not the entire solution, and that a climate innovation mission could take on forms. For instance, Daniel Gross and Bhaven Sampat argue that the OSRD model could be appropriate for certain climate-friendly technologies, acknowledging that the Apollo Mission did not have a singular focus on the moon shot, but it was in fact many moon shots pursued all at once.[33] And there are other proactive innovation policies from the past that we could reach towards. These could range from the public procurement that we saw during the Manhattan Project or during the COVID-19 pandemic to the active system of parliamentary rewards that we saw in the United Kingdom during the eighteenth and nineteenth centuries, which Robert Burrell and Catherine Kelly documented in their historical research.[34] Neither do I suggest that we should expect intellectual property rights to function frictionlessly in the context of climate change. There are countless examples of patent hold-up activities in biomedical basic research tools, and other opportunistic litigation practices impeding technology diffusion.[35] These are difficult questions which will need to be addressed with attention to the technology- and industry-specific nature of patent law's impacts on innovation. There is also a need to ensure that the scope of IP protection effectively balances public and private rewards alongside other incentive mechanisms within our innovation systems.

To go back to the questions that I posed at the outset of this talk, I hope that I have demonstrated that we ought to frame intellectual property law in the context of a broader innovation system of state and market mechanisms, understanding that different incentive mechanisms often have intra and interactions. William Lazonick and Mariana Mazzucato, for instance, have made the provocative suggestion that greater conditionality should be placed on how recipients of government funding get to exercise their intellectual property rights, although many tricky issues arise in that context which require further research by intellectual property law scholars.[36]

By looking at IP in context, and understanding precisely what the mission-oriented approach is as well as what it isn't, we may understand the proper role of intellectual property rights in addressing the climate crisis. Doing so allows us to understand where intellectual property law is failing, and where it is not. Intellectual property is unlikely to drive breakthrough scientific research as was highlighted by the patent skeptics, although this does not necessarily make IP a poor tool overall. Rather, it suggests that IP is not the appropriate tool for promoting basic research and early innovation, but it may have a more significant role to play for technology diffusion. A final note of caution here is that there is there is a tendency to look back to history to model our responses to new problems, but the great technology programs of the twentieth century, such as the Manhattan Project, provide inadequate models for climate change. The mission orientation is just one innovation policy response to climate change, and it is no panacea for the many challenges ahead. Climate change calls for a response from our innovation systems in their entirety. It calls for a more ambitious innovation policy response than that of the Manhattan Project or the Apollo Mission, and care is needed to ensure that our intel-

lectual property law systems are being fully used to promote diffusion. I will stop there, and thank you for your time. I'm really curious here if anyone has any questions, I'm also happy to talk more about my work on technology diffusion and what I've found in that context. Thank you.

CHRIS COTROPIA: Great. Thank you so much, Caoimhe Ring. I know these are kind of virtual collabs. You can hear mine, I guess I unmuted myself. So, I—we'll—take questions via the chat, or I'm happy to let someone ask Caoimhe Ring a question. I'm going to take the moderator's privilege, or at least the one I'm going to make up, and that is that I get to ask the first question.

I think this is a really interesting project. Where do you sit? So, recently the United States Patent & Trademark Office announced—and and they did this before—this Patents for Humanity Project where they have a specific green energy category. The idea is, if I can qualify under that category, I get accelerated examination, so my patent goes to the Office a little bit quicker, and I get some recognition. So, I'd be interested just in your reaction to a policy like that, is that a market-based policy, is that a more centralized push policy, maybe it's about the combination of the two and whether that good direction to kind of use intellectual property or patent policy to help the climate process.

CAOIMHE RING: Thank you, Chris, for that question, and certainly there's many different initiatives that we're seeing like this that are springing up in jurisdictions around the world. I think you know that this is probably a good mechanism in that it will reduce the uncertainty or time period for climate-friendly entrepreneurs, but there are also huge definitional problems. How do we classify a climate-friendly technologies? Do we classify it by reference to the benchmark of something that produces emissions or that doesn't? Are we thinking about things that reduce carbon emissions, or are we thinking about biodiversity, or its impact on environmental degradation? That's a really difficult question.

I'm not fully convinced that these fast-tracking programs are capable of distinguishing effectively between those different mechanisms. And then there's also a question of, if we have a market system which does not fully price the value of climate-friendly technology or the negative repercussions of pollution, we might ask what benefit can really come from speeding up the patent examination process if we don't resolve more fundamental problems of market price imperfections. The speed of the patent application process is not really the biggest problem. I think sometimes it's good to be skeptical of these initiatives.

I have colleagues who've done work on the difficulty of how we come up with those fast tracking patent classifications, and having looked at the European patent office where there is a Y02 classification system. They looked into how they arrived with those classifications, and found many difficulties and problems of fit when you dive into the categories covered. I think it's a good mechanism, a good initiative to see intellectual property offices take on, but very difficult to implement, and it's not necessarily clear that it will have the wonderful advantages that they profess.

CHRIS COTROPIA: Great, thank you. Griff, I see your mic is on—is unmuted. I don't know if you have a question or…

GRIFF PRICE: Hi Chris, I'm typing a question in the chatroom right now, so if somebody else has one, let me finish and I'll shoot it to you.

CHRIS COTROPIA: Okay, there was a question? Let me just add a reaction to your comment, what I've learned at least, the United State Patent & Trademark Office, we've had these accelerated programs before. They've never even been fully used. We have to pay for fast track, Track One, and the Office was really afraid they were going to get overwhelmed with Track One requests, but they never even got them all filled up for the year. So, I really think about this kind of skeptical notion about whether we think that's a way to go, I guess, in those particular contexts. Dan, why don't you go ahead and unmute your mic and ask your question? Thank you.

DAN CHOI: Sure, I actually have two questions if you don't mind. So, one is, first off, thanks for the paper that you wrote and also presenting here. But as part of your research, I understand that you've read a number of patent applications that were relevant to this technical space? I'm just curious if there were any insights that you gleaned from reading that large cross-section of applications, that's maybe my first question. And then second, I understand the point of view that you have is that patents may be more helpful in the innovation stage. And I guess I'm just curious if you could shed some light on what characteristics about patents really help with that particular aspect of the product market cycle. So, if you could make any comments about any of those, I'd appreciate it. Thanks.

CAOIMHE RING: Thanks Dan, those are two excellent questions. On the first question, in terms of patent application documents, maybe I should answer why I wanted to do that. They're very technical documents, so you might ask why anyone would want to look at so many of them. My reasoning was that, as Chris and I mentioned, classification systems of climate-friendly technology are not very transparent. It's not really clear how they work, and there are many problems with those classifications. If you do a public search with a Y02 classification at the European Patent Office, and you look at what comes up, you find that many applications are perhaps not necessarily climate-friendly. They fall squarely enough within those categories to obtain those classifications, but what's under the hood? I think there is a preference for quantitative methods on patent applications, but there's a lot of information contained in those documents, and particularly at the United States Patent and Trademark Office, you have so much information about the firms through patent applications. For instance, it records whether people pledge their intellectual property, even though it's quite a risky strategy, it can tell you a lot about the firm. I think that was my reason to look into that, because I was curious to see how people frame their inventions. Do they frame them as a technology that is designed to combat climate change, and what are the motivations for the technology stated in those documents?

Touching on your second question also, what role do patent documents play in investment decisions? In my research, I looked at how climate-friendly energy technology start-ups use patents to attract investors. And there's something of a strange contrast going on, in that patent applications are very carefully drafted, very carefully put together, so as not to disclose too much information but to disclose enough to get a patent, and then to be able to stand up in court in an infringement proceeding. Investors, on the other hand, don't necessarily examine those patent applications—they simply want to know that you have one. In terms of the advantage on the innovation side, for technology startups, I was told by interviewees that you need a patent to

get investment. There is a certain attitude among investors that having a patent, no matter what is on the page, is important, and that is a sign that the start-up's technology is inventive, that it is unique, that this is the only person who is doing this, whether or not that's true, but they don't necessarily look into the details of what that patented technology is. That was one of the main things that I found in terms of what is intellectual property is doing on the innovation side. It's being treated almost as an asset, as something that people can use to attract investment for their firm. I hope that answers your questions.

DAN CHOI: Yep, thank you very much.

CHRIS COTROPIA: Thanks, I've got a question here from Griff. What characteristics or aspects of climate change make the approach of the Manhattan Project and the Apollo Mission, for example, incomplete or inapposite?

CAOIMHE RING: I think, number one, it's the scale of the problem. There's not a specific technological capability that we need to achieve. Many people are speaking about carbon dioxide removal, or hydrogen as solutions which are now necessary because of the severity of the crisis, but these technologies will not answer the whole problem. I think there's a need to not focus on novel technology alone, to realize that we need emissions to be reduced around the world, and that in many countries, highly sophisticated or novel technologies are not really going to be relevant. A lower-income nation without the same technological capabilities is hardly going to be able to use a novel carbon dioxide removal technology at the same rate as a highly-industrialized nation. The scale of the problem means that it is much trickier in terms of what technologies we're talking about; it's a combination of very high-tech and very low-tech solutions because of the scale and geographical diversity in question. The problem of scale also lends itself to the idea that with things like the Manhattan Project, there was a blank page. They needed to invent a new technology that had never existed, whereas with climate change we are trying to transition away from existing classes of technology, you don't have a blank page, you have a lot of infrastructure that you need to transition and kind of retrofit to suit new purposes. It's a combination of many things: it's the scale of the problem, the complexity is much higher, and there are many more heterogeneous technologies at play, all of which make it much harder to talk about a Manhattan or Apollo for climate change.

CHRIS COTROPIA: Thank you for that clarification. So, we're almost out of time, I want to thank Caoimhe again for helping us work through the complexities of how we can incentivize and ensure diffusion in these green technologies, and thanks to Griff for organizing the speaker. As Griff mentioned, the next speaker in our series is going to be at the Federal Circuit Bench & Bar at the Broadmoor on June 30th from 1:00 to 2:00 pm, when Major L. Trent "Pilgrim" Bradford will talk about the law of cyber neutrality. In the fall, we will again be (virtually, probably) in the Dolley Madison House as this lecture series continues, the specific speaker to be determined.

Caoimhe, thank you so much, and for the members of our audience, thanks for coming and enjoy the rest of your day. Thank you very much.

CAOIMHE RING: Thank you.

GRIFF PRICE: Let me add my thanks and admiration for the scope and depth of your knowledge of your subject matter. It's truly impressive and it's a pleasure to have heard your talk.

CAOIMHE RING: Thank you for having me it's been a pleasure and I hope you all have a wonderful rest of your day. Thank you so much for your time and for the opportunity to speak.

CHRIS COTROPIA: Great. Thanks.

ENDNOTES

1 This discussion builds upon earlier work by the author: Caoimhe Ring, *Patent Law and Climate Change: Innovation Policy for a Climate in Crisis*, 35 Harv. J. L. & Tech. 373 (2021).

2 *See, e.g.*, Siva Thambisetty et. al, *Addressing Vaccine Inequity During the COVID-19 Pandemic: The TRIPS Intellectual Property Waiver Proposal and Beyond,* 81 C.L.J. 384 (2022).

3 *See, e.g.*, Robert Burrell & Catherine Kelly, *Innovation Policy and Chronic Emergencies*, 24 Vand. J. Ent. & Tech. 221 (2022).

4 *See, e.g.*, Melissa Brand, *TRIPS IP Waiver Could Establish Dangerous Precedent for Climate Change and Other Biotech Sectors, IP Watchdog* (May 26, 2021, 12:15 PM), https://ipwatchdog.com/2021/05/26/trips-ip-waiver-establish-dangerous-precedent-climate-change-biotech-sectors/id=133964/.

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10 *See* Jérôme de Meeûs & Alain Strowel, *Climate Change and the Debate Around Green Technology Transfer and Patent Rules: History, Prospects and Unresolved Issues*, 2012/2 WIPO J. 178 (2012).

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12 Ofer Tur-Sinai, *Patents and Climate Change: A Skeptic's View*, 48 Env't. L. 211 (2018).

13 Nordhaus has also explained how intellectual property rights interact with these market failures. William Nordhaus, *Designing a Friendly Space for Technological Change to Slow Global Warming,* 33 Energy Econ. 665 (2011).

14 *See, e.g.*, The Earthshot Prize, https://earthshotprize.org/; Mission Innovation, https://mission-innovation.net/, Green Climate Fund, https://www.greenclimate.fund/.

15 *See* Caoimhe Ring, *Owning Our Climate Future: Patents, Crisis Innovation, and the War on Climate Change* (unpublished Ph.D. dissertation) (on file with Oxford University Intellectual Property Research Centre).

16 F.G. Gosling, The Manhattan Project: Making The Atomic Bomb 51 (U.S. Dep't of Energy et al. eds., 1999).

17 Mariana Mazzucato, THE ENTREPRENEURIAL STATE: DEBUNKING THE PUBLIC VS. PRIVATE MYTH IN RISK AND INNOVATION (Anthem Press 2013).

18 *See, e.g.*, Daniel P. Gross & Bhaven N. Sampat, The World War II Crisis Innovation Model: What Was It, and Where Does It Apply?, 9–11 (2020) (Working Paper 27909) (on file with Nat'l Bureau of Econ. Rsch.), https://www.nber.org/system/files/working_papers/w27909/w27909.pdf.

19 F.G. Gosling later reported on this massive increase of investments in his book. *See* Gosling, *supra* note 16, at 6–16, for a more detailed analysis regarding the rise of investments into the Manhattan Project.

20 *Id.*

21 *See, e.g.*, John M. Logsdon, The Decision to Go to the Moon: Project Apollo and the National Interest (MIT Press ed., 1970).

22 Special Message to Congress on Urgent National Needs, 205 Pub. Papers 396, 404 (May 25, 1961).

23 Deborah D. Stine, Cong. Rsch. Serv., RL34645, The Manhattan Project, The Apollo Program, and Federal Energy Technology R&D Programs: A Comparative Analysis (2009).

24 Fankhauser et al., *supra* note 7, at 133–171.

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26 *See, e.g.*, David C. Mowery et al., *Technology Policy and Global Warming: Why New Policy Models are Needed (Or Why Putting New Wine in Old Bottles Won't Work)*, 39 Rsch. Pol'y 1011 (2010); *see also* David C. Mowery, *Defense-Related R&D as a Model for "Grand Challenges" Technology Policies,* 41 Rsch. Pol'y 1703 (2012).

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32 Stuart J.H. Graham et al., *High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey*, 24 Berkeley Tech. L. J. 1255 (2009). For a review of the empirical literature, *see* Bhaven A. Sampat, A Survey of Empirical Evidence on Patents and Innovation (2018) (Working Paper 25383) (on file with (Nat'l Bureau of Econ. Rsch.), https://www.nber.org/system/files/working_papers/w25383/w25383.pdf.

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36 *See generally*, William Lazonick & Mariana Mazzucato, *The risk-reward nexus in the Innovation-Inequality Relationship: Who takes the Risks? Who Gets the Rewards?,* 22 Ind. & Corp. Change 1093 (2013).

III THE LAW OF CYBER NEUTRALITY

By Major L. Trent "Pilgram" Bradford

Major L. Trent "Pilgram" Bradford, a Professor of Law at the United States Air Force Academy, presented this lecture on June 30, 2023, at the Federal Circuit Historical Society luncheon at the 2023 Federal Circuit Bar Association Bench & Bar in Colorado Springs, Colorado.

Transcript has been edited for clarity.

LAURA MASUROVSKY: Good afternoon, everybody, I'm Laura Masurovsky, former president of the Association. I ceded my title as Immediate Past President last night to Joe Reisman, who is here, who has done just an incredible job, so we're looking forward to a year of wonderful programming. Today, we have an incredible program for all of you from the Federal Circuit Historical Society. It is really my honor on behalf of the Association and the Society to introduce you to Major Trent Bradford of the U.S. Air Force.

Major Bradford is an Assistant Professor of Law at the United States Air Force Academy, here in Colorado Springs, where he teaches law and directs the cyber programs of the Law, Technology and Warfare Research Cell. He received his law degree in 2011 from BYU, and then spent many years as a trial lawyer, handling criminal cases for the military all over the world, both on the prosecution and the defense side. Very accomplished, he rose to the level of Chief Circuit Trial Counsel. Major Bradford was deployed to Afghanistan and Iraq, handling detainee issues and rapid dynamic targeting. Then, in 2022 he received his LLM in Space, Cyber and Telecommunications Law from the University of Nebraska-Lincoln. He will be presenting today on a topic that's near and dear to all of us who are studying developments in the law of warfare, which is the law of cyber neutrality.

We are honored to welcome Major Trent Bradford, and his bride of seventeen years, Heidi Bradford, to our Association. Please join me in giving them a warm welcome.

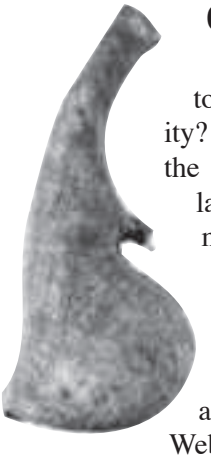
MAJOR BRADFORD: Well, it is really an honor to be here. I'm really excited to be here and I hope that I can kind of live up to the hype. This is a really interesting topic. I love to talk about it, read about it, write about it and I've been told when you start something like this, you always start with a funny story or kind of a moving story or something. However, because of the way I am dressed and the way I was introduced, I have to start with 5 C.F.R. § 3601.105. So, please, all of you, know that the views presented herein are those of the speaker and do not necessarily represent the views of the Department of Defense, the U.S. Air Force, the Air Force Academy, the Department of Law, or any other component of the Department of Defense. And I'm glad you laughed at that. It makes me feel like I started with a joke. So, thank you.

But here we are, at this beautiful Broadmoor Hotel, on June 30, 2023, a day when

every single one of you—I'm going to make a prediction here, call me out if I'm wrong—every single one of you has a cell phone. Or two. Or three. In your pocket, or your purse, or somewhere nearby. Now, these of course aren't the old switch network phones where Ma Bell would plug in a cable here and a cable there to make a copper line connect the phones. These are what by ten-years-ago standards are supercomputers, sitting in your pockets doing amazing things. This is the age of cyber. And it affects all our lives. Maybe it defines some of our lives. Even in third world countries, lives are at least indirectly affected by what we call "cyber."

Now I know that "cyber," as a term, is technically an adjective or a prefix, but it is often used as a conceptual noun, so as we're talking about cyber today, that can be any computer facilitated electronic communication, whether it's between people or to control some kind of technology or software, whatever. So, cyber is relatively new in warfare. It's been in warfare for a decade or two, but in terms of timelines of how long warfare has been around, cyber is quite new. Now, neutrality and neutrality law is, shall we say, getting closer to a senior citizen discount in the world of law, especially the law of war.

So, with that in mind, I'm showing you now a picture—I hope this isn't too disturbing of a picture, but this is an old wineskin—forgive me for starting with a scripture from the King James version of the Bible, but here we are: "Neither do men," trust me, this is actually the best place to start this conversation. "Neither do men put new wine into old bottles: else the bottles break and the wine runneth out, and the bottles perish." And, I might add, you probably shouldn't try to give a modern lecture in an ancient language lest the audience gets lost and throws rotten tomatoes at you. There's a lot of food there, so just bear with me for a moment here.



Old Wineskin

What does this have to do with cyber neutrality? Well, cyber activity is the new wine and neutrality law is the old bottle. So, let me explain. Once again, here we are in 2023. It's been more than three decades since the first public Internet and the advent of the World Wide Web. I still remember my first time on the Internet in middle school in this fancy computer lab that we had, and I visited the M&Ms website—no federal endorsement intended, it was just a cool website back then, but that's been a while. And we are about an average lifetime now from the first programmable computer in 1941. And even that was more than thirty years after the Hague conventions on neutrality were enacted in 1910.

So, to sum up, neutrality in international law derives its substance from treaties enacted in 1910, thirty-one years before the first programmable computer and eighty-one years before public Internet and the first web page. And yet, "cyber" as a concept plays an increasingly indispensable role in warfare and great power competition. So, scholars have now been grappling with that cross-section between "cyber" and warfare for over a decade, but although there are strongly worded scholarly opinions on lots of topics in that category, the fact is that international law relating to cyber activities and warfare is neither developed nor settled. So, we try to plug new things into old legal frameworks, and sometimes the frameworks are made for that and it works. But neutrality law is like the old bottle and cyber activity is the new wine.

So, we're going to dig into the history of neutrality law a bit, but first, it's important to

understand what neutrality law really is and even more importantly, what it's not. People will often ask me things like, "if there's this thing called 'neutrality law,' doesn't it violate neutrality law if we are getting involved with Russia and Ukraine and lending support?", and things like that. But the thing I need everyone to understand is that neutrality law isn't so much a responsibility as it is a conditional right. It doesn't mean the U.S. can't get involved, but what it does mean is that if a neutral state complies with the laws of neutrality, then they are entitled to certain protections and the belligerents in a contest by law should be leaving them out of their belligerent activities. And since I'm using the word 'belligerent,' let me explain that, too. 'Belligerent' doesn't necessarily mean that your country has done anything wrong, it's just a term of art in warfare law that means one of the countries that is engaged in the fighting. So good guy, bad guy, it doesn't matter. We just call them belligerents. It's not a slight. It doesn't mean they're doing anything wrong.

So, if neutral countries comply with the laws of neutrality, then they should be protected from being sucked into a war. And that's actually a pretty important development—because before international law there was no, well, international law. Even in practice, there was no neutrality. In antiquity, when fighting broke out between neighboring countries or kingdoms, or fiefdoms, or whatever, the neighbors kind of had to get sucked into it. They had to decide who they were for and who they were against. Who were their enemies, who were their allies. Now, that didn't necessarily mean they had to engage in the fighting, but they did have to render needed-assistance, allow passage through their country, and deny those same things to the other side.

We can all think of where this might lead if—I'll choose my wife, Heidi—if I attack you, and now we're fighting, but your neighbors like you better and so they are helping you out and they're helping you to thwart my attacks and helping you to better attack me back. I don't like that very much, so I might decide to attack your neighbors to take away that capability, which, over time, gets more and more countries involved in a war and the war just spreads and spreads and spreads. Countries did try to be impartial during all of these early historic times, but the belligerents never recognized that impartiality. So, this is the way it was all the way through the fall of Rome, and as we get into the Middle Ages, this was essentially the same, but toward the latter end of the Middle Ages, we started to see a little bit of change. Just a little, in that the neutral nations weren't exactly forced to pick a side, but there were still no rights nor responsibilities connected with neutrality.

So, during this time, states began to try, I guess successfully, to furnish some money, or some troops, or other assistance while maintaining that they were not a part of the war. Other states of course didn't like neighbors getting involved in ways that were not advantageous to them, so they started doing a new thing. They started to preempt that practice by engaging in treaties with each other, not like mutual defense treaties, but treaties that said, "hey, if I get in a fight, you agree not to help the person I'm fighting against, alright?" And so, countries started to enter into these kinds of treaties. And it did a couple of things. First, it started to show the difference between actual neutrality and that not-so-sincere version, but it also began to develop the underpinnings of neutrality law.

So, this is around the end of the 16th century, and now let me introduce you to Hugo Grotius. I'm just curious. Are there any *Guardians of the Galaxy* fans out there? A couple. You may be interested to know then

that Hugo Grotius is also known as Hugo de Groot. But I looked into it and while the jury is still out, I'm pretty sure it's not the same person. So anyway, Hugo de Groot—or Grotius—he was a big name in law in the 16th and 17th centuries. He's been called the father of international law, probably because of two books that he wrote that were very influential, one of which is called *De Jure Belli ac Pacis*. And I know nobody will criticize my Latin because nobody really knows how Latin was pronounced, but it means "on the law of war and peace." In that book, Grotius explains two laws or two rules that had developed regarding neutrality during that time. Here, they are in kind of a shortened version. First, "neutrals shall do nothing which may strengthen the belligerent whose cause is unjust, or hinder the movements of a belligerent whose cause is just." You can see how that can be open to interpretation, right? And second, in a war in which it is doubtful whose cause is just, neutrals shall treat both belligerents alike in permitting the passage of troops and supplying provisions for the troops and in not rendering assistance to persons besieged.

You may notice this puts no responsibility on the belligerent parties to respect the territory of neutral states—and, according to Oppenheim, they didn't.[1]

So, let's fast forward a bit more and let me introduce you now—I practiced this name so many times, and I'm going to say it perfectly—to Mikhail Nikolayevich Muravyov. Thank you. I know you did [*sic*]some Russian, did that sound—great, thank you. I'm just going to call him Count Muravyov—so this is him, or at least an image of him, a bit of a sad story.



Mikhail Nikolayevich Muravyov

FORMER MINISTER OF FOREIGN AFFAIRS OF THE RUSSIAN FEDERATION

Count Muravyov was the Russian Minister of Foreign Affairs at the very end of the 19th century. In August 1898, he passed a note to his international colleagues to propose what later would be called a 'peace conference.' In that note, he said that "maintaining peace generally in arms reduction was the ideal toward which the endeavors of all governments should be directed." He did live to see such a conference take place the next year, but it failed to produce any kind of actual arms reduction. They did come up with some agreements of things that maybe "should be," but nothing binding, just a step in the right direction, but Count Muravyov tragically would die before being able to see any real tangible progress. Because the next year, in 1900, he died very suddenly with a wound in his left temple, and there were rumors of suicide. He had been in a situation where he was taking some blame for some of Russia's trouble with China. The official government version was that he had slipped and fallen in the middle of the night and hit his head on the corner of a desk. Either way, tragically, he never saw his dream become a reality, and it did take a little while.

It had been expected that a second peace conference would take place the very next year, but "the years slipped by," writes James Brown Scott,[2] and then Russia found itself at war with Japan over the Korean peninsula. I won't go into too much detail, but Russia thought they had a pretty decent chance during this war. Then it started looking like actually they didn't, but when Japan

offered some armistice ideas, Russia didn't like it and kind of doubled down. In the end, Russia was soundly beaten and Japan began to rise as a world power.

But after that, because we're sticking with neutrality law here, other Russian officials secured the support of President Theodore Roosevelt of the United States to invite forty-four governments to another conference at the Hague. This time, first off, three of the original Hague conventions were revised and ten new conventions were adopted, including Convention 5 and Convention 13 regarding rights and duties of neutral powers in times of war.

These conventions were enacted in 1910, and this was the genesis, the beginning of modern neutrality law. Of course, in a sad twist of fate, only four years later saw the beginning of the Great War, as Archduke Franz Ferdinand of Austria was assassinated in Sarajevo and Austria wanted some revenge and got Germany to go along. Then, through a series of treaties throughout Europe and various events, country after country after country got pulled into World War I.

So, very shortly after these conventions were signed, that's what happened. After World War I, the League of Nations was created to try to prevent anything like this from ever happening again, but of course that failed to prevent World War II a few years later. That brings us up to 1945 and the United Nations Charter, which is kind of another attempt, maybe a stronger attempt to prevent these kinds of global wars from happening.

Now, nearly every sovereign nation in the world would become a member of the United Nations and ratify the UN Charter. It requires all members to settle their international disputes by peaceful means and to refrain in their international relations from the threat or use of force. Now, essentially the UN charter has been seen as an effort to outlaw war. The UN Security Council can identify threats to peace and can call upon members of the United Nations to take measures to restore international peace and security. So, if everything worked as was intended, there shouldn't be any more war. There was even some thought among scholars that the law of neutrality might have become obsolete, because without war there would be no belligerents, and Hague 5 and Hague 13 don't really say anything about what happens if there are no belligerents.

Jimmy Gutzman, a Lieutenant Colonel when he wrote this, explained, "if the UN worked seamlessly and collective security worked in all instances, the law of neutrality would be obsolete as there would never be a need for a neutral state."[3] If you think about it, if nations are called upon to go and restore the peace, that kind of makes it impossible for them to be neutral at that point, but guess what, everyone? It's not exactly how things went down. Last year, as Russia acted as, I'm going to say, a clear aggressor in the Ukraine conflict, there was nothing the United Nations could do about it because the Security Council has five seats that are permanent seats that have veto power, and Russia holds one of those seats. So, anything the United Nations Security Council will try to do, be it a resolution or any call to action, Russia could veto. So, the good news is neutrality law is alive and well.

So, that's our historical discussion and now it's time to get back to trying to put our new wine into an old bottle. So, here's a question I'm posing: is there such a thing as cyber neutrality? What does it mean? If warfare is occurring only in cyberspace, then is it really warfare? Does it even implicate the laws of war?

Now, neutrality rules do apply to cyber activities and infrastructure, but my posi-

tion is that some scholarship overstates the extent to which it does, and the extent to which the law is clear and settled. To determine what rules, if any, apply and in what context, we're going to need to look at both treaties and customary international law. Of course, in a room full of lawyers, I don't really need to explain treaties—they're kind of like contracts between countries. Once they are ratified, you're bound by the terms that you've accepted, and we'll come back to the limits of that in a minute. And then customary international law, of course, is when we have a generalized and consistent state practice, as well as what we call *opinio juris*, so countries are all doing something out of a sense of legal obligation. They feel they owe it to the world in a legal way. So, if we have those two things, we have customary international law that can be binding on countries even outside of treaties.

So, back to the question of, is there cyber neutrality? Talking about just cyber activity, countries attacking each other in cyber space and all these kinds of things—first off, do we have any treaties? Well, the only real substantial treaty on cyber at all is the Budapest Convention which, first of all, failed to gain adherence of the most powerful countries in the world, and second, as far as international law goes, really doesn't talk about anything besides criminal law and extradition. There is no discussion of cyber law of war, there's no discussion of neutrality. And it's really the only major cyber treaty out there.

Then, we look at customary international law, and again, for now, just the context of cyber-only war, what do we have? As far as cyber activities and attacks can be attributed to countries, for decades, there have been attacks going around all over the place.

So, cyber conflict, even between major world powers, has been going on indefinitely for years and, due to the nature of these cyber activities and the problems with attribution, unless a country raises their hand and says, "I attacked you," which almost never happens—it's really hard to figure out who thinks what. Countries hesitate to say what they think about things or when they've been involved in things, *et cetera*, so we don't have a lot to go on with customary international law. It could be argued that there really is no cyber-only neutrality. Really, the question is not just cyber-only conflict, but how do cyber use and infrastructure impact neutrality in the more traditional sense in kinetic wars? So, let's look first—actually, before we go to the Hague, I do want to point out a couple of things about international law that, even if they do seem obvious, they become really important in this discussion because they seem to be missed. First off, law pertaining to one domain does not necessarily transfer to another. By domains, I mean in a war context, we have wars on the sea, wars on land, we may have wars in the air, or at least portions of war in the air. So, the land would be a domain, the sea would be a domain, the air would be a domain, and now space would be a domain and you might even consider cyber a domain.

But, if we go back to these Hague conventions, we see that they are even divided by domains. Hague 13 doesn't necessarily apply to situations where Hague 5 is going to apply. So, law pertaining to one domain doesn't necessarily transfer to another.

Second, when you try to extrapolate by analogy—hey, this is very similar to that—it's a great academic exercise, but it doesn't bind signatories. You have the United Nations Convention on the Law of the Sea. Very similar to some things that happen in space, but the Law of the Sea doesn't bind countries as to what they do in space, and we have separate space treaties for that kind of thing.

And then third, regardless of the justification, no amount of creative treaty interpretation can impose upon a state an obligation to which it didn't agree. You see that in scholarship all the time when we're talking about the law of war and cyber. So, it's something to watch out for.

With that in mind, now let's jump back to the Hague. Of course, we have conventions on war on land, and on naval war. There is no convention on cyber war. And there's probably not likely to be either. Major treaties like this? I'm not saying they're exactly a thing of the past, but maybe there would have to be another world war before all the countries of the world could come together and agree to bind themselves in the ways that they used to. It's not happening anymore. I don't see in the reasonable future any kind of a major treaty on cyber warfare.

So, scholars have opined that…I'm going to give you their quotes here…cyber-attacks, or cyber weapons, passing through Internet nodes in a neutral state's territory, would violate neutrality principles. This is generally based on Article 22 of Hague 5. Now, I'm not going to quote Hague 5 in its entirety, but I will tell you there's no general requirement to do the types of things that tend to maintain neutrality, if that makes sense. It's limited to just the things that are enumerated. Your only responsibility as a signatory is to do those things that are enumerated, because there's no general requirement anywhere in Hague 5.

So, Article 2 says, "belligerents are forbidden to move troops or convoys of either munitions or war supplies across the territory of the neutral power." Article 5 puts a burden of enforcement on the neutral states themselves. Now, this is not a "you must not officially facilitate" kind of a duty, this is a "must not allow." So, even if people or corporations within that neutral territory are facilitating things that would violate Article 2, then that neutral territory may be held in violation, and therefore, not have these neutrality protections and may be targetable by the belligerents.

If a cyber-attack passing through neutral territory violates neutrality, it could make things really difficult for any country that has the Internet. You see, the routing systems that make the Internet work—so we're talking about border gateway protocol—they use autonomous systems, or "AS," to autonomously choose routes for packets of data to travel until they reach their destination. These routes can go through several countries even if you're only sending the data next door. Moreover, one communication—one message, if you will—is often broken up into multiple packets that can even take different routes. When a route is blocked or backlogged or destroyed, the AS will simply send the rest of the packets some other way, so what we have is this impossibly large number of possible routes for any given communication, and the possibility that a belligerent could accuse any number of states whose internet infrastructure has moved a packet.

Fortunately, this doom and gloom scenario hasn't really played out in real life—at least not yet. Cyber-attacks and various cyber activity, as we've talked about earlier, are going around the world all the time. So far, no states have been blaming territories just because, "oh, you have a neutral cyber infrastructure and a packet went through your country and attacked us, and so, you know, we're going to attack you," or something like that. It hasn't happened, but could it? Could countries blame other countries, neutral countries, for packets are going through their territory?

There's a 2008 paper that says, "contrary to views of some legal scholars, a belliger-

ent violates neutrality law when it launches a cyber-attack that crosses the Internet nodes of a neutral state."[4] The reasoning is that a cyber-attack does not qualify as a mere communications signal, allowed by Article 5III, but moves a weapon across a neutral state.

I disagree. This view takes unfair advantage of the ambiguity of the term "cyber weapon." The paper argues that cyber weapons fit into the United States Air Force definition of a weapon, which is "devices designed to kill, injure or disable people, or to damage or destroy property."[5] So, the paper agrees that Hague 5 allows intelligence, orders, and other dispatches to be transmitted under Article 5III, but says that because cyber weapons qualify as weapons, they are governed instead by Article 2.

Now, here's the scary thing to me—this view is shared by a majority of those who were surveyed for the creation of the Tallinn Manual, which is a manual that strives to identify the current state of the laws of war as they pertain to cyber activity.

But there are two problems with this approach. First, there is no legal definition of cyber weapon. It's a made-up term in international law. Even the term "cyber-attack," which we hear all the time, is meaningless in international law. It's a phrase used by the media to describe cyber incidents and, quite frankly, I think to sell headlines. But it doesn't mean that the thing qualifies as an actual attack or as an actual weapon under international law. So, even using the previous definition of weapons, which is "devices designed to kill, injure, or disable people or to damage or destroy property," most malicious cyber activity, if not all that we've ever seen, would not qualify. Now, you can imagine something happening that might, but especially not if "damage or destroy" is taken to mean physical damage or destruction.

Now, this paper further says that Hague 5 forbids movement of weapons, even those the size of an electron, across the territory of a neutral state. But not even electrons traverse communications lines from the sender to the receiver. It's simply information in the form of electromagnetic pulses. Electrons move back and forth; they don't go from one computer to the next—which reminds us that we're actually dealing with communications, and not logistics. So, the first problem with that approach is that "cyber weapon" is not a real term in international law. But second, and probably more importantly, the problem with that approach is that—assuming that a cyber act undeniably qualifies as an attack or as a weapon under international law—that still doesn't necessarily mean that it is prohibited by Article 2 because Article 2 doesn't prohibit all weapons, necessarily. It prohibits movement of troops or convoys of munitions or supplies across the territory of a neutral power.

So, once again, I want to point out states are only bound by treaty obligations that they affirmatively accept, and they do not have to, even though they may, accept an expanding definition or interpretation of the original treaty.

So, what about customary international law? Now, maybe I shouldn't do this, but I challenge anyone to find "customary and consistent state practice" of states condemning cyber actions as violations of international law. It's just not there, especially for neutrality law. Now, that doesn't prove that states view all cyber activities as legal within the international law framework. There are several reasons why a state may choose not to speak out. They don't want to give away their capabilities, or there is some embarrassment factor. However, there are plenty of instances of malicious cyber acts that have taken place, and those that are attributable to states could be seen as state

practice, which may indicate that the state views such acts as within the bounds of international law. Now, again, states don't always necessarily act consistent with their own *opinio juris*, so what this all boils down to is that we really have a lack of analytically useful state practice and state positions, leaving scholars in the position of having to opine what the state practice will be or should be.

That's just a really long way of saying we don't really know what the customary international law is. Personally, I think a really valuable predictor of future state practice can sometimes be found in a state's official publications, particularly those that are designed to guide the state's own officers, and specifically, when it comes to neutrality law, military manuals.

The Department of Defense Law of War Manual, has a seventy-seven-page discussion on neutrality. Exactly one page is dedicated to cyber neutrality. So, it acknowledges and discusses that interaction, but it states, "[m]erely relaying information through neutral communications infrastructure, provided that the facilities are made available impartially, generally would not constitute a violation of the law of neutrality. Thus, for example, it would not be prohibited for a belligerent state to route information through cyber-infrastructure in a neutral state that is open for the service of public messages, and that neutral state would have no obligation to forbid such traffic." Now, let me emphasize this part: "[t]his rule would appear to be applicable *even if the information that is being routed through neutral communications infrastructure may be characterized as a cyber weapon or otherwise could cause destructive effects* in a belligerent state (but no destructive effects in the neutral State or States)."6 Now, admittedly, there's also room for states to use military manuals for deception and manipulation. So, there's room to argue that this doesn't necessarily indicate, for example, the U.S. perspective on what the international law is. But, by and large, where the manuals are first provided to guide the state's officers, and second made available for the world to see, these facts do strongly indicate that the manuals contain the state's actual position as to their sense of legal obligation.

So, kind of concluding here, without state actions to clearly establish generalized and consistent state practice, scholars simply can't tell us what customary international law is, but rather what scholars believe the law will be or should be. Now, sometimes authors state such opinions as if they represent actual current international law, but practitioners need to understand that they don't necessarily represent the current state of the law, and they are not binding on states. So, I was asked to leave some time for questions and comments and vulgar insults, so I'll wrap up here and turn it back to you for any further discussion.

Member of the audience: [Inaudible]. What I was just curious to know about—a lot of the cyber-attacks that we see a lot of times are basically denial of service—it's making the resource unavailable, as opposed to destroying it. Where does that fall? Where does that fall? Because the idea of making the resource unavailable…we're just saying you can't get to it.

MAJOR BRADFORD: So, let me try to summarize the question for our online audience. Your question is regarding how things are defined in international law. And specifically with cyber-attacks, a common version or probably the most common version is the denial-of-service attacks, which makes something unavailable for a period of time. It doesn't necessarily destroy or even damage it—so, how does that fit in? Is that a good summary?

This kind of draws my mind to some other areas of Law of War, *jus in bello*, *jus ad bellum*, where we start talking about what is an armed attack, what is destruction, what can you target. Does it have to actually be destroyed for it to count as something you have to consider under the Laws of War? There is some question, especially in the cyber realm, as to how we should look at that, whether we look at it as an effects-based analysis—like what are the end results? Did this denial-of-service attack shut down some critical cyber capability, such that people predictively started rioting or lost their drinking water, and people started dying? Do we look at that from an effects-based lens? Or do we look at it more as what was the means that was used to do this?

There are actually, I think, seven different criteria that I don't have memorized—not criteria—seven different ways to look at attacks and cyber. And quite frankly, there's no consensus. Nobody really knows because we haven't really had cyber-attacks that have killed anybody or, for the most part, destroyed things. The closest is probably the Stuxnet virus that kind of damaged and shut down some nuclear centrifuges. And even that, nobody was saying— "oh, this is a violation of international law, or this is—this classifies as an armed attack," you know, even if attribution could be made. So, the only answer to your question, I think, is just a big question mark. I know that I disagree with some scholars, and they disagree with me, and they disagree with each other, and a lot of us have really strong opinions—but there is no treaty on point. And our prior discussion about customary international law still applies: there's just not enough there to analyze and state what the law is. So, I really could summarize all of today's discussion—and just about everything cyber and law of war—with a big like, people might say they know, but nobody really knows. I don't know if that was a satisfying answer. Is that close enough? Is there a follow-up?

Question from member of the audience off-microphone.

MAJOR BRADFORD: I like that. So, the follow-up, for all of you online, is I think a great example of trying to prevent somebody from getting into the bathroom; you sit there in the bathroom, in front of the bathroom, and they can't get in. You haven't destroyed anything, but you've prevented them from being able to use the bathroom. Where does it—can you re-ask the last part of your question?

Question from member of the audience off-microphone.

MAJOR BRADFORD: So, where does that fall within the realm of what's allowable or not allowable? So, technically and strictly speaking, reading the law, I would argue that just about everything that the world is capable of right now in cyber is technically allowable. It's not a very satisfying answer though, because part of international law isn't just, "if we were to codify this, did you break the law or not?" Part of international law is predicting what the results are going to be, what the responses are going to be. So, on the technical side, I say, just about anything we can do in cyber doesn't break any law. Again, people disagree with me. But the functional, real-world application piece of it is, if you're sitting in front of that bathroom and blocking it, you haven't broken a criminal law, but maybe there is a tort lawyer in here who would take that up. I don't know, but the real question is, what's the response going to be? Is somebody going to come after you with a baseball bat because you did that, even if it's not a violation of the law?

And so that ends up being where the rubber really meets the road, is kind of that predictive aspect, which really that's kind of what international law is for—is to be able to have some idea of how the world works and how people will respond. Technically, probably nothing, at least nothing that we're capable of now, is going to violate the law. But from a predictive kind of perspective, we just need to look at how is this going to be viewed in the international community, how is someone going to respond, and how is the rest of the world going to see us and them in this conflict? Yes, sir.

Question from member of the audience off-microphone.

MAJOR BRADFORD: So, the question is, we're following up on that, thinking about a blockade in naval warfare. Is there anything we can learn from comparing that to something like a denial-of-service attack, right? And yes, Hague 13 talks about things like blockades and things that happen on the sea. You can draw analogies for scholarly purposes, but again, that's not going to bind anybody. So, someone might make the argument, "hey, blockades in Naval Warfare are only allowed in these specific circumstances," or "you can only blockade the belligerents, but not these ports or those ports." So, we can extrapolate that out and say, "well, maybe you can only do denial of service attacks on these types of targets or else you might be violating, you know, Hague 13." But again, different domains. I hate to say everything's fair game, and I don't really believe that, but from a technical—what is the actual legal perspective—kind of everything is fair game. Scholar-wise comparisons are going to be really useful. And quite frankly, they're probably going to help us predict because countries are probably going to do the same thing and say "hey, we all know from naval warfare these kinds of things should be out of bounds, and that's kind of what you did over here. So, we don't like that." And we, as an international community, are going to *sua sponte* kind of respond in such a way. So, the predictive value of it, I think, can be really high. Yes?

Member of the audience: [A question regarding psychological operations and misinformation].

MAJOR BRADFORD: So, the question being, do psychological operations predate the Hague Conventions. And I guess, what does that mean in modern times when we have all of this misinformation and the possibility of kind of creating a panic and those sorts of things. I don't actually know, but I'm guessing that information operations are probably as old as warfare. They just happen in different ways. I'm trying to think through after reading these two conventions, but I didn't focus on that and I'm not even sure it's there as far as neutrality goes.

Member of the audience: [Question about misinformation.]

MAJOR BRADFORD: So, we're talking about misinformation and disinformation, the havoc that can wreak on a nation's power—and that's a big thing today, that's a huge deal today—and we believe that Russia is heavily involved in doing those kinds of things. So, let me back up to international law in general and kind of back out of neutrality law. You, everybody here, knows that espionage is illegal. Guess what? It's not illegal in international law. It's only illegal under domestic laws. We will put somebody to death for committing espionage—and probably every country in the world will—but it doesn't violate international law because no one has ever signed a treaty saying we're going to stop committing espionage. And we've been committing espionage on each other forever.

So, the customary and consistent state practice is, we're going to commit espionage, and we all do it to each other, and we all know we do it to each other—and that doesn't violate international law. Now, if we catch you, we're going to apply domestic law. And so that's kind of where we are, I think, with these information operations is: they probably don't violate international law. Now, there are debates out there also about sovereignty and cyber. Does doing cyber activities within a country violate their sovereignty? But, if you think about it—I don't want to pick on Russia, let's say Falconia—the nation of Falconia wants to come and commit espionage. They come into our land with a passport, you know, we let them come in. We didn't know they were going to commit espionage. So—and then they commit espionage. That doesn't violate international law. That doesn't violate our sovereignty. We let them come into our country, right? So, it is really interesting that these things like espionage are one of the most gross and egregious things we have yet it doesn't violate international law. Yes?

Member of the audience:

[I]f I commit cyber warfare against you, my act of commission of that isn't a breach of international law? But, by going through another neutral country to do it, if that's where the violation occurs, then isn't it the other country's obligation to stop me from doing it.

MAJOR BRADFORD: So again—for the online community, here—the question is, if we commit something that is cyber warfare, and let's assume that it violates all these principles we are talking about. If we just commit that act directly, are we not violating international law? Whereas, if we go through another country, we then are? And the answer is no because there are other international laws. It may not violate neutrality law specifically, but we also have those laws we didn't talk about—the *jus in bello* is what we can do during times of war. If you're not supposed to make that attack, it's still going to violate international law, even if it does not run afoul of neutrality law. Now, if you're in a declared war, where you're allowed to make attacks as long as it is a valid military target, it doesn't violate neutrality law. But then you go through another country—and just for ease of discussion, let's pull cyber out of it and say instead of rolling our tanks directly into their country, we go through a neutral country without their permission—then we have violated neutrality law. Or, if they kind of facilitate it, they may have violated neutrality law. But you just have to remember there's more law out there than just neutrality law—so just because it didn't violate neutrality law doesn't mean it didn't violate some other law. There's a whole body of law on what we can do in war and what we can do in starting a war. Is that helpful? Did I see another hand? Yes, sir.

Question from member of the audience off-microphone.

MAJOR BRADFORD: So that's a great question. When we talk about the effects-based analysis, can we—can some of these things be violations of humanitarian law? Like, if you do a cyber-attack that shuts down a hospital, or something along those lines. I'm going to say yes, not necessarily neutrality law, but when law of war and international humanitarian law are kind of a Venn Diagram that overlaps a lot, and sometimes lawyers will use those terms interchangeably, though there is a slight distinction. When we're talking about what is humane and things, it—I'm probably stepping out of my realm of expertise here—but it does tend to be more effects-based. So, when

we're talking about, like, genocide, which is the quintessential violation of human rights law, we don't really care how you do it; it's a violation, plain and simple. So, hospitals are a great example.

The analysis changes when you expect civilian damage or casualties. If it's a valid military target, that doesn't mean you necessarily can't attack it just because it may kill or injure civilians or civilian infrastructure, and I think that's a misconception that's out there. For policy reasons, if we can avoid that, we will, and the law of war makes you consider it, but just because there will be civilian casualties, doesn't make it an unlawful target necessarily. There are some balancing things that you have to do.

There's a thing called 'perfidy,' as well, that we as the United States, I hope, don't do. But the adversaries in the wars that we've recently been wrapping up do, where they essentially use your reliance on the laws of war to trick you. Great example is fighters riding in a Red Cross marked ambulance to get to or from some attack. You're not supposed to do that because we don't attack ambulances—and we don't want the world to start saying, "well, that ambulance is just as likely to be full of fighters as, you know, injured civilians, so we might as well attack it." We don't want that. Perfidy is a violation of international law, and hospitals are one of the big things that we watch out for. Now, it's sad when we have jihadists who like to hide their councils and their munitions and their people in orphanages or hospitals or schools, but there's a big difference between early stages of a war, where there's a lot of explosion and dying, versus where we've been more recently in the fight against ISIS or the latter years against Al Qaeda, where we have complete control of skies and it's just kind of pieces here and there. There's not a whole lot of risk, for example, of ISIS resurging because we missed this particular opportunity to kill this particular leader. So, we may forego that, whereas in earlier stages of the war, it may be so critical and we have a lot of people dying, we have to take advantage of that.

And I know I've gotten way off of your question—can I come back to your question really briefly, sir? A piece that I forgot to address—we were talking about kind of what do we do if someone is committing these acts that are not necessarily violations of international law or a country. Now, there are things that we can do. Anything short—anything that doesn't violate international law—we can do to that country in response. So, we can—well, take Ukraine and Russia, for example—we tried to cut off Russia using a coalition of countries from being able to make money. You know, we put sanctions on them. That doesn't violate international law. Anything that doesn't violate international law anyway we can do, and then there are some instances where we can take certain steps to stop things from happening—things that would otherwise violate international law. But because they're doing something and it's attributable to them, we can take what action is necessary to stop that from happening. Now, when we talk about Chinese or Russian nationals doing their hacking and espionage, like, what do we do? We don't attack China and Russia. In fact, we can't, you know. We can't attack them for committing espionage in keeping with international law. So, what do we do? Well, we put them on a list. We indict them. And we say, "well, you know what? If you ever come here, and we ever get our hands on you, we're going to try you." Right? And that's really scary to them. Not. It's a badge of honor, you know? They go back home, they're like, "the U.S. indicted me I was so effective helping my country." It's a badge. So, what is really the

punishment? Well, they can't come to the U.S., or we'll catch them. So, they can't go to Disneyland in California. Maybe they can still go to Disneyland in Hong Kong, you know? I looked up what is the number one, like, tourist destination in the U.S., and according to Google a few months ago, it was the Grand Canyon. So, that's the punishment. If you come to our country and you commit espionage, we will indict you and you can't go to the Grand Canyon. So, there you go.

All right, I don't know if anyone here who is going to wrap this up, but okay, I guess I can just talk forever—but thank you very much. This has been really fun.

LAURA MASUROVSKY: Well, that concludes our lunch. I wanted to thank the Historical Society, the Federal Circuit Historical Society. I don't know if there are any members here, but they organized this lunch and I think I learned a lot. A lot to think about. So, thank you very much.

ENDNOTES

1 Lassa Oppenheim, International Law: A Treatise, Vol. II: Disputes, War and Neutrality 624 (7th Ed., 1952).

2 James Brown Scott (Ed.), The Hauge Conventions and Declarations of 1899 and 1907 Accompanied by Tables of Signatures, Ratification and Adhesions of the Various Powers and Texts of Reservations v (Oxford University Press 1918)

3 James Gutzman, *State Responsibility for Non-State Actors in Times of War: Article VI of the Outer Space Treaty and the Law of Neutrality*, 80 Air Force L. Rev. 87, 108 (2019).

4 Jeffrey T.G. Kelsey, *Hacking into International Humanitarian Law: The Principles of Distinction and Neutrality in the Age of Cyber Warfare*, 106 Mich. L. Rev. 1427, 1443 (2008).

5 *Id*. (citing Dept. of the Air Force, Policy Directive 51-4, Compliance with the Law of Armed Conflict para. 6.5 (1993))

6 Office of General Counsel, Department of Defense, Department of Defense Law of War Manual (June 2015) 1002–3 (emphasis added).

IV THE COURT AT WAR: FDR, HIS JUSTICES, AND THE WORLD THEY MADE

By Cliff Sloan*

Professor Cliff Sloan, a professor of Constitutional Law and Criminal Justice at Georgetown University Law Center, presented this lecture on November 7, 2023, to the Federal Circuit Honor Society.

Transcript has been edited for clarity.

Griff Price: Good afternoon, everyone, and welcome to the Fall 2023 Lecture of the Federal Circuit Historical Society. Let me express my thanks and appreciation to the Court, the Judges, members of the Historical Society, and all of our other guests at the Society's Fall 2023 online lecture. It's always a pleasure to appear in the beautiful Dolley Madison Parlor, which is a part of the Court's campus, even if only as a virtual background for our events. So, thank you for joining us for a very special presentation about the history of the Supreme Court this afternoon.

In the early 1940s, with World War II at our doorstep, almost all the Justices of the Supreme Court owed their positions to one man, President Franklin Delano Roosevelt, who had appointed seven of the eight Associate Justices as well as the Chief Justice. In a time of national peril, Roosevelt looked to them to support his wartime policies, even when, at times, those policies seemed to encroach on the liberal tenets of the Democratic Party and the New Deal. Did Roosevelt's Justices always provide the support that he expected? More broadly, what is the proper nature of the political relationships between Justices of the Supreme Court and the Presidents who appoint them?

Our speaker today, Professor Cliff Sloan, a professor of Constitutional Law and Criminal Justice at Georgetown University Law Center, will address those questions. He will tell us about *The Court at War: FDR, His Justices, and the World They Made* (PublicAffairs 2023), his recently published and highly praised study of the tensions that shared political beliefs and expectations between presidents and the justices they appointed can engender.

Professor Sloan has served in all three branches of the federal government and has argued seven times before the Supreme Court. In addition to *The Court at War*, he is the co-author, with David McKean, of *The Great Decision: Jefferson, Adams, Marshall, and the Battle for the Supreme Court* (PublicAffairs 2010), and his commentaries on the Supreme Court have appeared in *The New York Times*, *The Washington Post*, *Slate,* and other publications—both in print and online.

Please mute your mics during Professor Sloan's presentation. We do expect to have a few minutes for questions after Professor

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Sloan's lecture; please submit your questions to me by chat and I will ask as many as we have time for. Now, please join me in welcoming our speaker this afternoon, Professor Cliff Sloan. Cliff, the floor is yours.

Professor Sloan: It's such a pleasure and an honor to be here. Thank you, Griff, and thank you all so much for taking the time. Let me start by mentioning how I got interested in this subject of the Supreme Court during World War II. In 2013 and 2014, I was serving as Special Envoy for Guantánamo Closure. In connection with that position, I was reading all of the Supreme Court cases on military detention. Of course, I read the infamous *Korematsu* case upholding the incarceration of Japanese-American citizens, and I also read *Hirabayashi*, which upheld a criminal curfew targeted at Japanese-American citizens, a case that came out a year before *Korematsu* and was the first of those shameful anti-Japanese decisions. I noticed that exactly one week before its opinion in *Hirabayashi*, the Supreme Court had issued its famous opinion in *West Virginia Board of Education v. Barnette*. In the eloquent opinion by Justice Robert Jackson, the Court struck down, at the height of World War II, a mandatory flag salute in public schools, and did so on behalf of what was then a reviled and despised religious minority, Jehovah's Witnesses. It really struck me that within one week—within exactly seven days—you had one of the greatest civil liberties decisions in the history of the Supreme Court, and one of the worst civil liberties decisions in the history of the Supreme Court.

So, I got interested in reading up on the Supreme Court during World War II, and I discovered that there's actually very little written on that as a subject. Of course, there's a ton written on FDR's battles with the Supreme Court in the 1930s, his failed court packing plan, and "the switch in time that saved nine," where one Justice was perceived to change his vote to allow New Deal programs to be upheld. And then there's a lot written on the Warren Court, beginning in 1953 when Earl Warren became Chief Justice. But there was very little written on the Supreme Court in World War II as a subject. I started looking into it and it turned out to be quite a story. The war dominates everything for the Justices. It dominates their personal lives and it dominates all of their decisions, including those that do not explicitly relate to the war.

Let me tell you a couple brief anecdotes that I think highlight this point. The first one was told to me by somebody who I'm sure is very familiar to this group, George Hutchinson, who just turned 100, and of course, has been very active with the Society and with the Supreme Court. At the time of the Pearl Harbor attack, George was eighteen years old, and he was working as an aide in the Supreme Court library. The morning after the Pearl Harbor attack on Monday, December 8, 1941, he was at work as a library aide, doing what a library aide does, dropping off books, picking up books. Suddenly, through the front door of the Supreme Court, he saw groups of armed U.S. soldiers come bursting into the Supreme Court and take up positions at the windows and at the doors and on the roof. The reason was because, later that day at noon, FDR was going to be speaking to a joint session of Congress. This was FDR's famous speech where he talked about December 7th as a day of infamy. In fact, the Justices adjourned early so that they could go across the street and hear FDR's speech, and they sat in the front row. The soldiers had burst into the Court as part of an expanded security perimeter around the Capitol because of the President's appearance at the Capitol. Remember, this was just one day after the devastating surprise attack

at Pearl Harbor. What you see, quite vividly and quite literally, is the war invading the quiet precincts of the Supreme Court.

The other anecdote took place on December 26, 1941, when Winston Churchill addressed a joint session of Congress. Churchill had come to Washington earlier that week in a dramatic surprise visit and was staying at the White House. He addressed the House and Senate, and gave a rousing, eloquent Churchillian speech. Again, the Justices were in the front row. Churchill paused after he finished his speech and looked out at the crowd. He lifted his fingers in his trademark "V for Victory" sign. In the front row, very prominently, Chief Justice Harlan Fiske Stone lifted his fingers in a "V for Victory" sign in response. This exchange between the Prime Minister and the Chief Justice was prominently reported in newspapers throughout the country. The meaning of it was clear: the Court was in the fight.

I think it's helpful to look at three themes about the War Court and then to talk a bit about the decisions that the Court issued. The first important theme is something that Griff alluded to in his introduction, which is that this was truly the Roosevelt Court. People are generally familiar with FDR's battles with the Supreme Court in the 1930's, but what is less well known is that, by the summer of 1941, he had appointed seven of the nine Justices and elevated an eighth to be Chief Justice. It was by far the most dramatic impact on the Court of any president since George Washington.

Let's just briefly get the cast of characters out on the table. The Justices during the war years fell into three groups. The first is the group of Roosevelt's appointees who are very well known—Hugo Black, Felix Frankfurter, William O. Douglas, and Robert Jackson. The second is the group of Roosevelt's appointees who are not very well known. That's Stanley Reed, Frank Murphy, James Byrnes. Now, Jimmy Byrnes had been a Senator from South Carolina, and he was appointed to the Court by FDR in the summer of 1941, but he was only on the Court for around fourteen months. In the fall of 1942, FDR said to Byrnes, "come to the White House. You'll be the Assistant President. You'll be in charge of overseeing the wartime economy while I focus on military matters." Byrnes left the Court to work in the White House. The last Justice in this group of Roosevelt appointees who are not very well known was Byrne's replacement, Wiley Rutledge, who was FDR's final appointment to the Court.

The third group is the group of Justices who were not initially appointed by FDR. There are only two in this category. The first is Harlan Fiske Stone, appointed to the Court in 1925 by Calvin Coolidge, Stone's Amherst College buddy. FDR elevated Stone to be Chief Justice in the summer of 1941. It's very well documented that the primary reason FDR did so was that FDR was single-mindedly concerned with war preparation at that point. He thought war was inevitable. As you know, in 1941, before Pearl Harbor, there was tremendous isolationist sentiment in the country. FDR wanted to have as bipartisan a government as possible and he loved the idea of elevating this Republican—elevating this Coolidge appointee—to be Chief Justice. FDR had done something very similar the previous summer when he had appointed prominent Republicans to be Secretary of War and Secretary of the Navy. And the final Justice was Justice Owen Roberts. Roberts was the only one who didn't owe his position to FDR during the war years. He had been appointed by Herbert Hoover in 1930, and Roberts was the one who was perceived to change his vote. He was the one whose change of vote was perceived to be "the switch in time that saved nine."

But it wasn't just the number of Justices that FDR appointed. He was extremely close to almost all of his appointees. They revered him, admired him, adored him—and in some cases, they were excessively close to him with regard to their involvement in non-judicial policymaking matters. We could go through each Justice and talk about his relationship with FDR, but I'll just mention examples with regard to two, William O. Douglas and James Byrnes, when he was on the Court.

Douglas had been appointed to the Court by FDR when he was only forty-years old in 1939. He had enjoyed a meteoric rise. FDR had already appointed Douglas to be one of the first Chairs of the Securities and Exchange Commission. FDR was very close to Douglas personally. Douglas was part of the President's poker circle. FDR said that two of the things he greatly enjoyed about Douglas were that he told terrific stories and also—and this was very important to FDR—that Douglas made the best martinis of anyone in Washington.

In 1944, as FDR was getting ready to run for his fourth term, he had decided to sack his Vice President, Henry Wallace, and so the question was who would his running mate be. Initially, FDR very much favored Douglas. He thought Douglas would have great political appeal. He pointed to Douglas's humble upbringing in the Pacific Northwest, the way Douglas carried himself in public. FDR actually was kind of infatuated by Douglas—he talked about how Douglas's hair blew in the wind.

FDR told his advisors he wanted Douglas as his running mate. His advisors, the political pros, were very skeptical of Douglas. He had never run for office before. The head of the Democratic National Committee was from Missouri, and he was very close to Harry Truman. The political advisors were pushing Truman. Ultimately, FDR nominally left it up to the convention to decide his running mate.

But the week of the convention, which took place in Chicago in the summer of 1944, FDR released a letter in which he said he would be very happy to run with either Harry Truman or William O. Douglas. Those were the only two names in his letter. Right up until the final day of balloting, the press was full of speculation that Douglas was a leading contender—and, in some accounts, the leading contender—to be FDR's running mate. Now, all of this is while Douglas is a sitting Justice. Douglas did not himself attend the Democratic Convention, but there was a group of people who were very close to Douglas who were there at the convention, trying very hard to get him the nomination.

And then there's Jimmy Byrnes. Byrnes, as I mentioned, had been a Senator from South Carolina and a close ally of FDR on Congressional matters. Even before Byrnes left the Supreme Court in the fall of 1942 to go to the White House, while Byrnes was still a sitting Justice in the wake of Pearl Harbor, FDR put him in charge of all war-related legislation for the administration. FDR told his Cabinet that any war-related legislation had to go through Byrnes. Byrnes was frequently working out of the White House. In fact, there was one Supreme Court opinion that Byrnes was scheduled to announce, but he couldn't because he was at the White House meeting with FDR and others. FDR made it clear that Byrnes was the key intermediary between the Roosevelt administration and Congress on war-related legislation. There was a lot of it, and it was very important, and of course all of it could have come before the Supreme Court.

The last point about this being the Roosevelt Court is that World War II was

really the time of the pure Roosevelt Court. Shortly after FDR's death in 1945 and the end of the war, there was a series of deaths and a resignation. By 1949, Truman had appointed four Justices, almost half the Court. So, the war years are really the time of the Roosevelt Court.

The second important theme is that—contrary to public predictions, contrary to what pundits, Court watchers, and the press were saying would happen—the Roosevelt appointees did not act in unison. They did not march in lockstep. Far from it. They very quickly devolved into two blocs. One was headed by Hugo Black and included Douglas, Murphy, and Rutledge. The other was headed by Frankfurter and included Jackson, Owen Roberts, and Stanley Reed. And you frequently had Harlan Fiske Stone floating back and forth between the two blocs.

Now, I don't want to overstate the point. In many ways, I don't think the blocs were as firmly established or set in concrete in the way that we think of the current blocs on the Court, with the conservative supermajority and the three liberals. It wasn't set in stone as much as the degree it is in our current perception of the Court. But, on the other hand, it was something that was widely talked about in the press, it held true in a number of cases, and very importantly, the Justices themselves perceived it that way.

Some of it was substantive. Black, with his plain-reading view of the Constitution, tended to take an expansive view of the rights guaranteed by the Constitution and the Bill of Rights. Frankfurter, scarred by the pre-1937 experience of federal courts regularly striking down federal and state legislation on economic and regulatory matters, tended to be more hands-off across the board in terms of judicial involvement—but some of it very definitely was personal.

To begin with, almost all of these Justices had led large public lives. You had former U.S. Senators, a former Governor, former U.S. Attorneys General, a former Chair of the Securities and Exchange Commission, a former leading public intellectual. It was very different, of course, from today's Court, where eight of the nine previously had been federal appellate judges. And partly because they had led these large public lives, each of them felt that he could and should be leading the Court. None more so than Felix Frankfurter.

Frankfurter had devoted his life to the Supreme Court. He had written books and articles about it. He had been close to Supreme Court icons like Oliver Wendell Holmes and Louis Brandeis, and he was convinced that it was his natural fate and destiny to be leading the Court, and that the other Justices would just fall in line behind him. Somehow the other Justices didn't see it that way. That was very upsetting to Frankfurter. It made him very bitter. In fact, during the war years, Frankfurter kept a diary in which he recorded every perceived slight and grievance from Black and Douglas and Murphy and Rutledge. He even took to calling them "the Axis." Now, this is at the height of World War II when we're fighting the Axis countries of Germany, Italy, and Japan. It's as if after 9/11, one Supreme Court Justice started calling others "Al Qaeda," but it wasn't a one-way street. There are notes from Douglas to Murphy in this period where he refers to Frankfurter as "der Führer" and "the little bastard."

The final point about the conflict and the divisions on the Court is that Harlan Fiske Stone proved to be a very weak Chief Justice. He had strengths as an Associate Justice, and it would have been a challenge for any Chief Justice, given these very strong personalities, but Stone was particularly ill-suited to bringing the Court together.

The third important point, the third background theme, is something I mentioned at the beginning. The war dominated everything for the Justices. It dominated their personal lives and outlooks. Five of the Justices had sons in the military and a sixth had a son-in-law in the military. It weighed heavily on them. This was especially true for Hugo Black, who had two sons in the military. Black's wife during the war years suffered terribly. She had psychological problems, great depression. She wouldn't leave her room for days on end. Much of that was triggered by her worry and anxiety about her sons.

Frankfurter and his wife didn't have any children, but during much of the war, they had three British children staying with them. They were the children of a British lawyer who had been Frankfurter's protege in law school. The lawyer and his wife sent the children to stay with the Frankfurters because they were worried about the bombing raids in London and throughout England. The Frankfurters adored the children. They would take them to see FDR, who delighted in their antics.

Frank Murphy went them all one better. He actually enlisted in the Army during the war. During the summer of 1942, when the Court was in recess, Murphy secured a Commission as a Lieutenant Colonel. He was in barracks in the South. Newsreels in movie theaters across the country showed Murphy in his military uniform doing military maneuvers in tanks and behind weapons. I have a picture in the book of Murphy aiming a weapon. And then at night, Murphy would be in the barracks, reviewing petitions for certiorari and other Supreme Court filings.

The war also affected the daily lives of the Justices. They lived in the same bizarre and Byzantine world of rationing and shortages and price controls as everybody else. I also have a picture in the book of Wiley Rutledge's gasoline rationing card. For Justices, like for every American, there was only a certain amount of gasoline they could use every week. There are letters from Harlan Fiske Stone in this period in which he talks about how cold it is in the winter in his home in Washington because of the shortages of home heating oil. Stone and his wife were also very interested in civil defense. They would go to the local neighborhood civil defense meetings in their Kalorama neighborhood and listen to the local warden talk about it. Stone once came home and wrote his sons that, based on a meeting he had attended, he was convinced that if there was an air raid on Washington, they were just going to have to sit and take it because, as near as he could tell, there was no real plan.

Washington, like other major American cities, also had blackouts at night during the war to try to make bombing raids more difficult. The blackouts included government buildings such as the Washington Monument and the Supreme Court. Newspaper articles advised people what to do if they were out in the pitch black during a blackout. They advised people to keep a lit cigarette at their lips because that way, if somebody was coming in the other direction, they would see the glowing ash and they wouldn't bump into you.

To an unusual degree, the Justices also engaged in advocacy on public issues, both before and after Pearl Harbor. I'll give you a few examples. After the war began, Hugo Black was a featured speaker at "I am an American" rally in Central Park, and the other featured speaker was the boxer Joe Louis, who was then a private in the Army. Black and Louis and the other speakers repeatedly said that we have to support the administration's war effort—we have to

buy war bonds, we have to do everything we can. Jimmy Byrnes, while he was still on the Court, said in a public speech that anybody who is criticizing the administration's war effort is giving aid and comfort to the enemy and should immediately cease. He also told a packed stadium in Spartanburg, South Carolina, that he was confident of victory because we have God, and time, and Russia on our side. Justice Frank Murphy, who had been the Mayor of Detroit, Governor of Michigan, and U.S. Attorney General, also had been High Commissioner of the Philippines, appointed by FDR. He felt a great affinity for the people in the Philippines who were under attack and invasion by the Japanese. He broadcast a series of messages to the Filipinos advocating massive resistance, that they should fight for every inch of their territory. He told them, "Shoot straight, never falter."

Finally, during the war years, FDR gave the Justices a range of missions, both formal and informal, connected to the war. One example of a formal mission. Soon after Pearl Harbor, FDR appointed Owen Roberts to head a Pearl Harbor Commission to review what had gone wrong at Pearl Harbor, the lack of preparedness. Roberts took a two-month leave from the Court. Every other member of the Pearl Harbor Commission was a general or admiral. They went to Hawaii for several weeks, held public hearings, did extensive private interviews as well. Roberts then came back, met with FDR one-on-one for several hours, and reported his findings. The Commission also prepared a report which Roberts gave to FDR. The President released it publicly.

A couple of examples of informal missions for the Justices. FDR had Hugo Black go to Birmingham, Alabama, and examine the readiness of war-related industries in Birmingham and report back to him. FDR had Frank Murphy do the same thing with Detroit. Detroit was especially important as the arsenal of democracy, building tanks, jeeps, and other kinds of equipment. Murphy very publicly conducted his tour in Detroit, and he then went on a national radio network, addressed millions of people, and reported on his findings. He concluded that we weren't doing enough—both labor and business in Detroit were not doing enough—and we all had to do more to support the war effort.

And of course, as another example of a formal assignment, at the end of the war, a few weeks after FDR's death, Truman asked Robert Jackson to go to Nuremberg and be the chief U.S. prosecutor. Jackson had been FDR's Attorney General before he was appointed to the Supreme Court. Jackson had been outspoken to FDR and his aides throughout the war about the need for international legal accountability for the war crimes.

Now, let's talk a bit about the decisions that the War Court issued. It's a "tale of two Courts:" "the best of Courts" and "the worst of Courts." And they both relate very much to the war. On the "best of Courts" side, in my opinion, the Court issued a series of decisions in World War II in self-conscious contrast to our enemies, to the totalitarians, to the fascists, to the authoritarians, to the Nazis, in which the Court protected, recognized, and expanded constitutional rights and civil liberties. This is what made us different from our enemies.

I'll give you a few examples. In 1942, the Court decided *Skinner v. Oklahoma*, striking down a compulsory sterilization law for habitual criminals in Oklahoma. Oklahoma had passed a law that any man or woman who had committed three or more crimes of moral turpitude had to be sterilized. 'Moral turpitude' was defined very broadly to include everyday crimes like burglary.

In striking down the sterilization law, the Court, in an opinion by Justice William Douglas, found a fundamental liberty interest in the decision about whether to have a child or not, in reproductive freedom. It's the first time that the Court found that fundamental liberty interest. Based on that determination, the Court found a violation of equal protection because the compulsory sterilization law didn't apply to white collar criminal offenses. The Oklahoma legislators somehow excluded political corruption and tax crimes. On that basis, the Court struck the statute down.

But the war was very much part of the context of *Skinner* as it came to the Court and as the Court considered and decided it. Everybody knew that throughout the 1930s and into the early 40s, Hitler and the Nazis had engaged in a massive program of forced sterilization in the interest of racial improvement and racial purity. The prisoners and their lawyers very publicly said that, if the Oklahoma law were upheld, it would be the Hitlerization of American law. The case was very much reported in this context. In his opinion, Douglas says, "in evil or reckless hands"—that's his phrase—"in evil or reckless hands," we know that compulsory sterilization can lead to the disappearance of entire categories of people. Everybody knew exactly what and who he was talking about.

The following year, in 1943, as I mentioned, we have the *West Virginia Board of Education v. Barnette* case—again, this very eloquent, very famous opinion by Justice Robert Jackson. The West Virginia legislature, in the wake of Pearl Harbor, in a wave of patriotic fervor, had passed a mandatory flag salute in public schools, and the Jehovah's Witnesses objected. Jackson, in his opinion for the Court striking it down, famously said that, in our system of government, in our constitutional democracy, no government official can tell you what you have to think or believe. In his famous phrase, he said that is "a fixed star in our constitutional constellation." Again, the war was very much an important part of the context, and the case was widely and publicly perceived that way. In his opinion, Jackson stressed what he called our "totalitarian enemies." They are the ones who try to compel unity of thought and belief. Jackson even pointed out that, for the flag salute, the West Virginia Board of Education required the children to stand with their hands raised to the flag and the salute had very close similarities to the Nazi flag salute. I have a picture of that flag salute in the book as well. Once again, when the decision came down, it was very much perceived and understood in the environment of the war.

In 1944, the Supreme Court decided *Smith v. Allwright*. This was Thurgood Marshall's first major victory in a case that he argued in the Supreme Court. The Court's opinion struck down the all-white Democratic primary in Texas and throughout the South. It was an important part of the publicly-understood context that we were fighting a regime that was premised on racial supremacy.

World War II was a time of great civil rights ferment and civil rights turmoil in the country. The African-American community had embraced what it called the "Double V" campaign—victory over fascism abroad and racism at home. There were civil rights demonstrations. The dislocations of the war economy, with so many people being off in the military service, meant that certain jobs and industries were open to Black workers that they had previously been excluded from. A very ugly white backlash sometimes occurred. There were events called "hate strikes," where white workers walked off the job. And in the summer of 1943, in cities throughout the country, there was a great deal of violence by angry whites against

African American communities. This was all part of the context of *Smith v. Allwright* as it came to the Supreme Court.

In addition to these cases, there is a series of decisions on an issue that probably united the post-1937 Court more than any other—the need to accord broad deference to the government about complex economic problems and regulatory issues and novel crises. Among other things, the Court upheld the unprecedented rationing and price controls legislation.

All of these cases had a vast impact in succeeding decades, and they continue to be very relevant today. In some ways, some of them are very much under fire today, but they were cornerstones of our constitutional foundation for three quarters of a century. *Skinner v. Oklahoma* is obviously a very important case in terms of reproductive rights. It's cited and relied on in *Roe v. Wade* and in other reproductive rights decision. It's cited and relied on in the interracial marriage decision, *Loving v. Virginia*. It's cited and relied on in the same sex marriage decision, *Obergefell v. Hodges*. And of course, we have *Dobbs* overruling *Roe v. Wade*, and the dissenters in *Dobbs* pointed to *Skinner* as one of the landmark opinions that they think is threatened by the reasoning and analysis and framework of the Court's opinion in *Dobbs*.

Smith v. Allwright, the white primary case, had a tremendous effect. Many historians think that *Smith v. Allwright* launched the trajectory that culminated ten years later in *Brown v. Board of Education*. And on voting rights itself, *Smith v. Allwright* was a very important cornerstone. We wouldn't see the full extension of voting rights until the activism of many courageous citizens in the 1960s and the passage of the Voting Rights Act of 1965. But *Smith v. Allwright* was an important foundational piece of the voting rights effort in the post-war years. And it continues to be relevant today. *Smith v. Allwright* is a door-opening approach to voting rights. Some critics of the current Court would say that, in a number of decisions, including *Shelby County* striking down a major part of the Voting Rights Act, the Court in the last ten years or so has reflected a door-closing approach to voting rights.

The issue about the government's authority to respond to novel problems and complex crises is one of the issues that continues to be very active on the current Court. We'll see a lot of it this term and in future terms as the Supreme Court embraces doctrines like the new "major questions doctrine" and other doctrines that narrow the government's ability to respond to novel social problems and complex crises.

In terms of the "worst of Courts," in my opinion, I would put in this category both a case about Nazi saboteurs and the shameful anti-Japanese decisions that I mentioned at the outset. With regard to the Nazi saboteur case, which you may be familiar with, *Ex Parte Quirin*, there were two groups of Nazi saboteurs, four in each, that landed in Long Island and in Florida. They were here with instructions to cause all kinds of damage, to blow up bridges and facilities and buildings. They were quickly apprehended. As you can imagine, when it was publicly announced, it created quite a public uproar. FDR and the Roosevelt administration wanted them convicted and executed as swiftly as possible.

FDR himself was very much personally involved. FDR was a history buff. He wrote letters to his Attorney General, Francis Biddle, drawing comparisons to things that happened in the American Revolution, and making clear that he wanted them tried and executed as soon as possible. FDR set up a special military commission to try them.

The lawyer for the saboteurs, who was a military official assigned to represent them, had some fairly substantial legal challenges to the commission process. In part, the Justices wanted to get the case resolved as soon as possible so that the military commission could go forward. The Supreme Court had a special summer session in the summer of 1942. The Justices came back to Washington from all around the country. In fact, that was the summer that Frank Murphy was in the military. He showed up in the Justices' conference room in his military uniform. Felix Frankfurter looked at him and said, "Wait a minute, you're in the Army this summer.

You can't sit in a case about the propriety of a military commission." Murphy reluctantly recused, but he insisted on sitting just behind the courtroom's red curtain in his military uniform, listening to every word of the argument.

One thing that Frankfurter didn't mention was that he had personally advised the Secretary of War, Henry Stimson, about the composition of the military commission. It was, if anything, a far greater reason for recusal, but Frankfurter didn't mention that.

Also, at this conference before they heard the arguments, one of the Justices reported that he had heard from Attorney General Biddle that FDR had said to Biddle that he didn't care what the Supreme Court ruled, he was going to have the saboteurs shot no matter what. The Justices sat there for a minute, and then Harlan Fiske Stone, the Chief Justice, said, "That would be a dreadful thing." The Justices left their conference, they heard two days of oral argument, and then they issued a brief order rejecting the challenges. Very tersely, they allowed the commission to go forward right away, reasoning to follow. The Court said that its decision, would take effect immediately—"forthwith," in the language of the order. Within one week, all of the saboteurs were convicted, and six of them were executed.

But now the Justices had a problem: they had to come up with the reasoning. Six of the accused saboteurs had been executed, and it turned out that the Justices very strongly disagreed about the reasons. There were all sorts of internal disputes, and they recognized that this was a major problem. They had allowed six people to be executed, and they couldn't agree on the reasons why. Finally, a few months later, battered and bruised and bloodied, they came together on a unanimous opinion and stumbled across the finish line. But, from the day that the Court's opinion was announced, it has been subject to withering criticism on fundamental points. And a number of the Justices who participated later said that this was the wrong way to do business—to decide and have people executed and then try to figure out the reasons why.

Now, the anti-Japanese cases, *Korematsu* and also *Hirabayashi*, involving the criminal curfew. In those infamous decisions, the Supreme Court, at the behest of the Roosevelt Administration, flowing from an executive order that FDR personally signed, upheld the persecution and incarceration of American citizens for no reason other than the country that their parents came from. That's a deep, deep stain on the Supreme Court, and on the country's history.

But, even from this negative side of the War Court's legacy, I think there are some important lessons. One important lesson is the danger of excessive deference to the government on claims of national security. In both the Nazi saboteur case and the anti-Japanese cases, there were wildly inflated claims of national security. In fact, in the anti-Japanese cases, *Hirabayashi* and

Korematsu, it has now been determined that the Justice Department and the War Department had in their possession evidence, facts, and information that directly belied and contradicted the claims of national security that the government was making in the Supreme Court. The government deliberately decided not to submit that evidence to the Supreme Court. None of that gets the Supreme Court off the hook because, even on the record as it went to the Supreme Court, the decisions were an abomination—but it does highlight even further the danger of excessive deference to the government on claims of national security.

The final lesson from this negative side of the Court's legacy is the judicial disaster, the catastrophe, that can result when Justices are unwilling to confront the President who appointed them, or that President's political supporters and backers. The difference between the cases protecting and recognizing and expanding constitutional rights on the one hand, and the Nazi saboteur and anti-Japanese cases on the other, is that in the cases protecting constitutional rights, the Justices didn't have to confront FDR—and they didn't have to confront him on a war issue. I think that's an especially important lesson today, at a time when the votes of the Justices correlate with the preferences of the political party of the President who appointed them more than at any time in our history.

In conclusion, I think there are lessons to be learned from both sides of the War Court's legacy. In my own view, I think that the decisions protecting and recognizing constitutional rights and liberties, at a time when we were in an existential fight for our existence as a constitutional democracy, are decisions that should be—to borrow a phrase from Robert Jackson—a guiding star in our constitutional constellation. Thank you again, and I'm happy to answer questions if there are any.

GRIFF PRICE: Well, thank you very much. That was very good. Questions?

DAVID CONLIN: I just was saying wow, that was really something. I really enjoyed the whole presentation. It fit together beautifully and it was obviously rendered with such great depth and knowledge. I really appreciated that.

PROFESSOR SLOAN: Well, thank you very much. I appreciate your comments. That means a lot. Thank you.

GRIFF PRICE: Well, with the added comment that if you really want to understand the depth of Professor Sloan's knowledge of the history of the Court during the latter years of the Roosevelt era, read his book. He's just scratched the surface in his talk today about the anecdotes, the daily grind, the history, and the recorded facts that are at his fingertips in the book and in its endnotes.

I see one question in the chat room, and I think, not surprisingly, it appears to touch on and maybe extend a little further the last few minutes of your commentary. The questioner says, "in our time, the last three Republican presidents have appointed six Justices, including the Chief Justice. The conservative wing of the Court now enjoys a so-called supermajority that leads some constitutional law scholars to be concerned that those Justices will expand the protections of economic and religious interests espoused by the Presidents who appointed them at the expense of civil rights and liberties. Do you expect that to—I think we have to say—do you expect that to *continue* to be the case, and if so, what prior decisions of the Court are vulnerable?"

PROFESSOR SLOAN: Well, that's a big question. I'm happy to offer some thoughts on

it. First of all, I came to Georgetown Law School four years ago after positions in private practice and in the government and other places. I now teach Constitutional Law. Just in the time I've been teaching it, there's been a dramatic change. I see that very vividly on a wide range of matters. There's no question that this is a time of very great change, very convulsive change, at the Supreme Court. In terms of the lay of the land on the Court, Court-watchers are talking now about the fact that the term before last, there seemed to be a 6-3 Court on certain key decisions. Some commentators point out that in the last term, there seemed to be an emergence of what they called a 3-3-3 Court, where you had, for the lack of a better term, the three liberals, and then you also had frequently—as with any generalization, these can always be overgeneralizations—on the most conservative side of the Court, Justices Thomas, Alito, and Gorsuch. But then with Chief Justice Roberts, Justice Kavanaugh, and Justice Barrett, at different times, maybe two or three of them would side with the liberals on some of the cases. And a big question for Court watchers, is whether we're going to see more of a 3-3-3 pattern or more of a 6-3 pattern.

Even in talking about a 6-3 Court and a 3-3-3 Court, I don't want to obscure the fundamental changes that are taking place at the Supreme Court. People can have their own views about whether it's a good thing or not, but it's undeniable that they're happening. There's a famous *Carolene Products* footnote that Harlan Fiske Stone wrote in the late 1930s when Justices were trying to come up with a constitutional approach in the wake of rejecting the approach of the pre-1937 Court. Stone said that the Court should be very deferential on questions of economic and regulatory issues, but that it should also be vigilant in protecting the rights of, in his famous phrase, "discrete and insular minorities," those who had been excluded from the political process. In many ways, many of the changes that the Supreme Court is undertaking now—and again, whether you think it's a good thing or not depends on your perspective—are almost exactly the opposite of that. On economic and regulatory issues, the Supreme Court is being very interventionist. The Court's "major questions doctrine," which did not exist before the last couple of years, and the Court's renewed interest in an aggressive non-delegation approach and other developments, very much reflect a narrowing of the government's ability to respond to complex problems and novel crises. We've seen these new doctrines deployed on issues ranging from the response to COVID to climate change. And on the other hand, on many issues of constitutional rights, including issues where constitutional rights and liberties had been settled for decades, the Court has gone in another direction. So, there's no question about the dramatic nature of that change.

GERALD BJORGE: Professor, I have just one comment. I thank you for elucidating the years of Washington and the Supreme Court. I lived those years out in South Dakota, beginning in 1937. I remember the PX's, I remember a lot of demonstrations, believe it or not. And just maybe an off-topic question for us patent attorneys. Do you recall any cases decided by the Supreme Court, in what you call "the Roosevelt years"? I can't remember right now—whether *Hazel-Atlas*, the famous glass case, the anti-trust case, was certainly started by them way back in 1932, if I remember right—but did it get to the Supreme Court during those years, and were there any others that you could think of?

PROFESSOR SLOAN: Well, let's see. Thinking off the top of my head, and I'm not recalling

any right now, but I wouldn't take that as a definitive answer and I would defer to the expertise of this group on those questions. There's not anything that's immediately coming to mind for me.

GERALD BJORGE: All right, thank you. I've been in Washington since 1961, so maybe I'll have an opportunity to talk to you personally sometime.

PROFESSOR SLOAN: Sure, that would be great. I would welcome it.

GERALD BJORGE: Thank you.

GRIFF PRICE: Another question from the chat room, and I'm not sure this is directly pertinent to the topic of your talk, but it's certainly pertinent to the political world we live in today. The question is, "do you have an opinion, or would you care to express an opinion, on the applicability and relevance of the insurrection clause of the Fourteenth Amendment to the upcoming elections, and if possible, candidates in those elections?"

PROFESSOR SLOAN: Well, I'll just say a couple of things, generally. Obviously, there's litigation in a couple of states right now about former President Trump's candidacy. For those who oppose the applicability of the Fourteenth Amendment in this context as a basis for disqualification, there are both legal arguments and factual arguments. Some of the legal arguments, I think, are not well-founded. There are opponents who say, for example, that the insurrection clause simply doesn't apply to the President. It only applies to other federal officials. In my opinion, that's not a persuasive objection. Now, there's a question about, what is the process in terms of whether Congress needs to pass enabling legislation for the clause, or whether it's self-executing and is essentially a specified qualification—like whether somebody's thirty-five-years old—that the election officials have to determine about whether the activities at issue qualify as insurrection or not, and what is the process for making that determination? That's something that's currently being adjudicated and fiercely contested.

On the factual question about whether the activities at issue qualify as an insurrection under the clause, I would say, in terms of what I've heard and read about the arguments, there are also some who would construe the clause very narrowly and say it basically applies only to the Civil War or a Civil War-type conflict. I don't think that's a compelling interpretation of the language. And there's a set of non-legal issues about what the impact would be on the country if, for example, a particular candidate is found ineligible to be on some ballots, and how that would play out as a political matter. Obviously, people disagree on that. Some people say that would be a very bad thing for the country and would lead to a very bad reaction. Other people, who are in favor of, in their view, enforcing the clause to deny ballot access, would say we need to enforce the Constitution and we can't be afraid of enforcing the Constitution.

GRIFF PRICE: Yes, and the questioner adds in the other chat addressed to me: "One has to assume that the final decision in a court proceeding to enforce that against a particular candidate would be, the final decision would be made by the Supreme Court—six of whose nine members were appointed by Republican presidents, and three by the candidate who is the subject of the objection."

PROFESSOR SLOAN: First of all, that's true about the likelihood of Supreme Court review. That would especially be the case, I think, if any state denied ballot access. But I also don't want to overstate the predictability of the Supreme Court or Supreme Court outcomes. For example, in 2020, the

Supreme Court decided a couple of cases about subpoenas to President Trump, one from Congress and one from the Manhattan DA's office. The Court rejected the arguments of President Trump's lawyers that were making sweeping claims of immunity. Now, there have been some personnel changes in Justices since then. Also, you remember in the wake of the 2020 election, there was an effort by Texas and a number of other states, which President and candidate Donald Trump very strongly supported, requesting that the Supreme Court should, as an original matter, rule that some states' votes were invalid. The Court almost unanimously declined on jurisdictional grounds, and it seemed clear that the Court really didn't want to have anything to do with it. I don't think it's necessarily a foregone conclusion how the Court would rule in this context.

GRIFF PRICE: Thank you so much for just a stunning presentation. It's great for older lawyers, I think, to hear discussions on a level that we used to love so much in law school, and it's quite obvious why you have turned to academia as your third career. Thank you again.

PROFESSOR SLOAN: Thank you so much. I really appreciate it. Thanks, everybody. Take care.

V. HAS THE FEDERAL CIRCUIT LIVED UP TO ITS PROMISE?

Remarks of Hon. Paul R. Michel, Former Chief Judge, United States Court of Appeals for the Federal Circuit

Lecture delivered July 16, 2025
Cosmos Club, Washington, DC

Transcript has been edited for clarity.

SETH HELLER: Good afternoon, everybody. May I have your attention. I'm Seth Heller, Chair of the Legal Affairs Group, and I really want to thank you for attending to today's lunch and lecture. I'd also like to take this opportunity to thank the Cosmos Club staff for putting on another fantastic lunch. Thank you very much. I'd also like to thank Griff Price who is floating in the back right now. But Griff is a Cosmos Club member and really was a key part of arranging today's lunch. He was also one of the first attorneys I ever worked for when I was a summer associate. For as good of a lawyer he is, he's even more of a gentleman.

And so today is really my honor to introduce today's distinguished speaker, the Honorable Paul Michel. Judge Michel served on the US. Court of Appeals for the Federal Circuit from 1988 to 2010.

He was Chief Judge from 2004 until 2010. He was nominated by President Reagan, and was confirmed in a leap year, February 29, 1988. He sat on panels hearing thousands of appeals and authored over 800 opinions. Judge Michel has been named one of the 50 most influential leaders in IP law in the world. Before he joined the bench, Judge Michel was a prosecutor in Philadelphia. He actually said today he's had four or five careers.

He prosecuted Watergate, Koreagate, and was counsel to the Church Committee. He also served as Associate Deputy U.S. Attorney General of the Department of Justice before he was Counsel and Chief of Staff to Senator Arlen Spector.

Not only is he distinguished in law, but he also served our country as a member of the U.S. Army Reserve from 1966 until 1972. As I mentioned, Judge Michel retired from the bench, and he currently speaks around the country, if not the world, on intellectual property issues. And he also mediates and arbitrates primarily intellectual property disputes. And with that, Judge Michel, it's now an honor to welcome you to the podium.

JUDGE MICHEL: There's a height issue here. Nobody's as tall as that Seth Heller. Ladies and gentlemen, thanks for being here. It's an honor to have a chance to talk with you about a subject that actually is important to all of us. The Legal Affairs Group is a special part of the Cosmos Club. I had the honor of addressing the group about 10 years ago, and it's vivid in my memory how

many tough questions I was asked. So I'm happy to be back and looking forward to comments or questions or reactions from all of you. This just started out as something under the auspices of the Federal Circuit Historical Society, which of course, is related to the court. And then some complications arose. The Cosmos Club Legal Affairs Group came to the rescue, so I thank them for that and very much appreciate your time with me today.

It's a very challenging time for the rule of law in the United States. And that's the situation I want to address because I'm right now, very focused on the intersection of our three branches of government, of course, the legislative, the judicial, and the executive, because they're separate, they're co-equal, but they're interdependent, and the balance of power between each pairing is very important to the fair functioning of our government. And I think we're in a time now where those relationships are under considerable stress.

And that means our whole constitutional system is under stress or distress. So, I want to play a little bit first. Why me? Why should you hear from me about the three branches and the establishment of the rule of law in the United States? As was mentioned, I was a judge for 22 years on a specialized court of appeals dealing, to a great extent, with patent cases. But as it happens, my life journey has meandered around a lot of different territory. I ended up spending about 37 years at the intersection between the three branches. I've served in all three branches of the government at length. Just counting my Washington time and not the time in Philadelphia that I mentioned, which is where I cut my teeth.

I spent two years as an assistant Watergate special prosecutor in that era, one year as a counsel to the Church Committee investigating civil liberties abuses by American foreign intelligence agencies and domestic law enforcement agencies, including the FBI and the IRS. I then spent five years in the Justice Department, initially running an investigation that the Washington Post in a bit of self-congratulations called "Koreagate," since they had invented the term Watergate. So, they didn't want to lose a patent on that. After that, I spent seven years at the US Senate working on all manner of issues, many of which had to do with law, law enforcement, the relations among the branches. That was a great education. Working in the Senate as a senior staffer was sort of like being in a PhD program every day for seven years. It was really intense learning.

And then, of course, I spent 22 years on the Federal Circuit. And one thing that you wouldn't know, probably, is that when you become the chief judge, it's not an appointment, it's not an election, it's just a formula. It has to do with age and service. It's no great thing to become the chief judge. It's something of a happenstance of timing. That was a wonderful experience. I served for almost six years as the chief judge. And that automatically made me a member of the governing body of the whole federal judiciary, the Judicial Conference of the United States. That's 27 members: the Chief Justice, the Chief Circuit Judges of each Circuit and the Court of International Trade, and a district judge elected from each Circuit, representing the whole judiciary as a national arrangement. And that, of course, was the happenstance of being a chief judge. Again, that was automatic.

What was not automatic is that Chief Justice Rehnquist asked me to serve on the seven-judge executive committee. Now, the conference meets twice-a-year before meetings, and a kind of pro forma sessions adopts many, many things that have

been carefully managed and prepared long before the meeting. But the executive committee meets frequently and basically runs the show behind the scenes in between the twice a year meetings of the judicial conference. Again, that was another education of enormous importance because we had to deal with the Attorney General, with the Marshal Service, with the prison system, with the probation officers, with the pardon apparatus, and on and on. So when you add it all up, 37 years of education about interbranch balances and tensions and problems. So hopefully I have something to offer in that realm.

What I'm doing now is quite different. I've retired 15 years ago. I spent a lot of time in the first few years doing consulting type assignments: moot courts; mock trials; mediations; arbitrations; and things of that sort, which was interesting and fun. But then I increasingly got involved in trying to strengthen the intellectual property regimes in our country because they're so important to economic growth and global competitiveness and job creation and good-paying jobs and technological leadership and on and on. But right now I'm diverted onto yet another career, correctly said. I sort of feel like I've had five or six careers, and maybe that's not even an accurate count, maybe slightly higher than that. But in any event, what I'm doing now is I'm effectively the co-chair of something called the Article 3 Coalition.

You may not have heard of it because it's a brand new group that was just formed. It consists of 44 fully retired U.S. judges: circuit judges and district judges. So about one-half appellate, one-half trial judges. The 44 also is almost exactly evenly divided between judges appointed under a Republican president and judges appointed under a Democratic president. So it's a very interesting group, highly diverse in every way: geography, personal background, personal philosophy, and all the rest. But we're completely united in the sense that the rule of law is under serious challenge, that judges are under serious challenge and threat and intimidation attempts, and that's created a situation that requires a response.

So this group of volunteers is trying to speak out to educate the population generally and the policy makers and the media and others about this growing crisis. In my opinion, we're actually at the most acute time of disharmony between the branches.

The most celebrated is the tension between the White House and the judiciary that you probably have been reading about in the newspapers. The Sunday New York Times, for example, had a very long editorial quoting about 40 different judges who ruled on challenges to administrative initiatives. And what they said, their response was to the challenge brought, and in their opinion, of course. And also, it showed the interest on the part of the New York Times in this almost warfare between the judicial branch and the executive branch.

And it's really not a question of this administration or that administration, because there were problems before the new administration took office. And there were threats before. There were several judges killed in recent years prior to the current year. But some circumstances have changed so that the threats and the dangers to judges are escalated now compared to the past and show no sign of slowing down. A lot has changed in the country. You know all about that. There are not only people in the administration who are upset with judges, there are lots of private citizens who are upset with judges. And so we have a circumstance where credibility of the courts is under challenge, not just their safety or their functioning, but the acceptability of their ruling.

Of course, judges have no army, no enforcement mechanism. And at the end of the day, the American legal system only works because almost all citizens in private or public disputes accept what the courts finally rule. That is now in doubt, because for one thing, it's not clear that the administration is willing to abide by every judicial decision if it doesn't like it or if it conflicts with the president's agenda. So we're at a point where the famous founders device of checks and balances, one branch against the other, is precarious. And the rule of law depends on the checks and balance working.

And that depends on independent decision-making by judges. And by independent, I just mean based on the law, the facts of record, the precedents, the statutes, what the Constitution commands or prohibits. The alternative to that kind of rule of law is the rule of sheer power. Who's got the most power, economic power or, in the case of an administration, political power. That's ultimately the situation we're in. So the problem is not at all limited to the White House, although I've mentioned it several times. Judges have been cited for an initiation of impeachment proceedings by numerous congressmen of late, not for any misconduct on their part, not for high crimes and misdemeanors or any other kind of misconduct, but because they ruled in a way that the current administration was unhappy with.

That was enough in the view of some of these members of Congress to warrant starting impeachment proceedings. And obviously that's another apparent intimidation attack. I mentioned that lots of judges have been subjected to violence and some killed. But there are, again, some very new developments. Scores of judges have been subjected to harassment techniques. For example, you may know the phrase "doxing." That's where public official's personal details, address, children's names and ages, where the children go to school, and all those kind of things are put out on the internet in the hope that somebody will go after those judges or family members. So that's doxing, and that has resulted in about 100 instances of judges having pizzas delivered to their house that they didn't order, often late at night, often in the name of a man named Daniel Anderle.

Daniel Anderl was the son of a federal district judge in New Jersey. And he was murdered in a shooting where his mother, the judge, was the intended victim. But he answered the door, and the mother was a little bit further back in the house, and luckily wasn't injured as well. But the son was killed, Daniel was killed. So obviously, the judges getting these pizza deliveries in the name of Daniel Anderl are feeling that they're being warned, you could be next. It could happen to you if somebody doesn't like your rulings. So it's a very intimidating circumstance.

Nobody should feel sorry for judges. We're all volunteers. Of course, we're going to be criticized. Of course, a lot of people are going to be unhappy. In fact, lawsuits almost always involve a winner and a loser. So at least the losing side is almost always extremely unhappy with the judge. And often many other people are as well. But the scale of things, not only incidents of doxing, but other things too. For example, you may know the phrase "swatting." Swatting is where somebody calls the police and fabricates a story that there is a shooting in progress or a hostage situation at such and such an address. So the police show up with their SWAT team with heavy arms and sometimes break into the house thinking they're trying to save somebody. And actually, the whole thing, of course, is fabricated. Again, it's an intimidation technique. So far, I don't see any sign that the

federal judges have changed their rulings because of this state of harassment.

But judges are human at the end of the day, just like everybody else. And I worry that in the back of their mind, as hard as they try to rule only on the law on the evidence, there's a risk, some risk—who knows, impossible to calibrate—that they might pull some punches in order to try to avoid harm to themselves or family members.

But even worse, the acceptability, as I mentioned earlier, of court rulings by anybody, by private citizens, by business, by business rivals, by anybody else, depends on court rulings being accepted, whether one agrees with them or not. As the Chief Justice recently, on several recent occasions actually, emphasized, if somebody's unhappy with the ruling of a trial-level judge in the United States, their recourses to take the case to a higher court, appeal the decision, maybe all the way to the Supreme Court.

But harassing the judge is not a proper response, yet, that seems to be a growing phenomenon. And there are lots of downstream dangers to this, too. For example, if judges start to feel more and more intimidated, when judges die or retire, and therefore there's a vacancy to be filled, will the best and brightest talented people be willing to take the job, knowing of these heightened dangers? Of course, it's an unanswerable question, but it's something that at least I worry about, and it seems to me many other people might worry as well. And of course, it goes way beyond judges. The fight is not only between the current administration and former administrations and judges, but between Congress and judges.

It is broader than that, because now law firms, as well as judges, are under the gun. You've read about executive orders punishing certain law firms that were thought to be unfriendly to the President at some point in the past. So that's another thing. There are also many law firms that are under discrimination-type investigations that are very onerous in terms of the kind of records demanded by the Justice Department. When heavy demands for documents and witnesses are made by a government agency in an official investigation, the object of the investigation: the law firm, or a university, is subjected to enormous pressure. And there are many universities that are also under the gun, as you undoubtedly have read.

So it's across the board that there's a lot of tension between these institutions because of controversial political views and sort of general anger in our society. Where we used to have an argument, we now have a shooting. Mass shootings at schools or other things like that. On the subject of protection of judges, as you probably know, and I learned in great detail on the executive committee, the protection of judges is committed by statute to the U.S. Marshal Service. But the same set of statutes that governs the Marshal Service also says the Marshal Service is part of the Department of Justice and, therefore, ultimately under the control, the more or less absolute control, as far as I can tell, of the Attorney General of the United States.

So what if an Attorney General decides that protection of certain judges is not appropriate, or the protection of any judges, is not appropriate? Even in the face of a threat that the Marshall Service experts have said is a genuine threat, a real danger? Maybe the protection can't be assumed to be there.

Another problem would be the diversion of resources. What if the Marshal Service Division defending judges is told: "Your resources are being cut in half tomorrow because we want to send those marshals to do border enforcement, and you'll just have

to do the best you can with the half resources that you have left." Well, the resources are already severely strained; they are not sufficient now. And if half of them were diverted to something else, the situation would be much worse. None of this has happened but it's lurking there as a potential problem, I think.

Now, of course, I'm going to talk about the dependency of one branch or the other. Of course, the budget of the courts comes from the Congress. The Congress can disestablish courts, change the jurisdiction of the courts, reduce the money. So the courts are very vulnerable to both branches in many, many different ways.

Now, I don't purport to have a solution to these problems. I'm working on it with this group of judges I mentioned before. We've developed some standards and principles and things like that, which we're going to try and use to educate policymakers, people in the media and the citizenry generally about what's fair in a lawful regime in a constitutional republic and what's off limits. But we have to invent, all of us have to invent this as we go along because this is pretty much of an unprecedented situation and, therefore, it seems to me ultimately it's a problem of importance and consequence and also responsibility for the whole population.

Because if the people in the country don't defend our legal system, it may be severely disabled or handicapped, which would not be great. Consider the status of the judiciary just in terms of certain formal occasions. Frequently, the Congress hears in joint session from distinguished foreign leaders; entirely appropriate. Every year it hears a long address from the current President. Again, entirely appropriate. Have you ever heard of an occasion where the joint session of Congress was addressed by the Chief Justice of the United States? No, because it's never happened.

Is the status of the judicial branch that much lower than the other two branches or foreign leaders that no one's thought of that or no one's done that? Again, there's a question, there's no answer, but it's another symptom of what I think we could consider an unhealthy situation. But the last thing I want to suggest is that a lot of the solutions lie in the hands of Congress.

Of course, nowadays, it's very hard to get Congress to agree on anything or do anything affirmative, which creates sort of a gridlock situation. If you need legal reform, you can't get it if Congress can't agree on anything, which often seems to be the case. But Congress can be very responsive. I spent seven years, as was mentioned, as a staffer in the U.S. Senate. If the head of a company in the State of Pennsylvania called Senator Specter and the company only had 20 employees, he got through immediately and he got action and response from Senator Specter. All the more so with bigger companies, unions, universities, other institutions. The Congress is very, very responsive. They're only responsive to the people. And so, if the people are dormant on any issue, including the independence of the judiciary, nothing will happen. If the people speak up, Congress will eventually respond, and maybe even faster than eventually.

So we're at a crossroads, I think, in this country. And there's a role for everybody, not only retired judges. I should say, parenthetically, that the wags say you flunked retirement, Michel, because you work seven days a week and you're fully retired.

So I have to plead guilty to that. But I'll tell you this, I've enjoyed every single job I've had. I've always worked for the public for 44 straight years as a public official and really even since retirement. And I was very

proud of that, very comfortable with that. I thought every job I had was important and involve trust by people that we would do a good job, and I would try to do my best to help. But the work I've taken on now for this Article 3 Coalition, I think, is actually the very most important work I've ever had in my whole life, because of the times we live in. So I just want to see if it's possible for you to consider, after we part company here today, what you might be able to do through your contacts, your congressional representatives, bar associations you're part of, law firms or companies you're affiliated with. Unless all these different players get in the act, I don't think the current situation will improve and could very well get worse.

And then finally, there is a need in our country not only to address problems of independence of the three branches, one from the other, but also to update the laws. For example, in the intellectual property area, there are three statutes that really set the structure that's obtained ever since. The first was the Bayh-Dole Act in 1980. It created a way for federally financed innovations to be brought to market and a way to incentivize private investment. It was a huge success. In recent years, actually in the prior administration, even more than the current one, it was under attack because circumstances have changed. The legislation hasn't changed, obviously, 45 years of age.

The second statute created the Federal Circuit to handle a certain intellectual property matters, 1982.

The third is the Hatch-Waxman Act that empowered the generic drug industry to the great benefit of all of us who ever have to take pills or require medical assistance.

So essentially 40 plus years for all those 3 statutes. In all three cases, the circumstances have changed hugely, but the statutes have not been brought up to date. It's a form of what I'll call benign neglect by the Congress.

But once again, Congress will respond if the people care enough to speak up. So I guess I'm here in an attempt to recruit silent private actors. I'm not expecting or even wishing that any of you would go out personally and do anything yourself. But if you can work through people and institutions you know to try to be sure that we preserve rule of law, checks and balances, freedom of judges, freedom of law firms, freedom of other institutions to operate the way they always have in the past, you'll be doing, I suggest, the highest duty any citizen could ever do. Thank you so much for your kind attention.

I'm at the mercy of Mr. Heller, if there's time for questions, I'd be happy to try to answer them.

QUESTION: Thank you, Judge Michel. Can you talk a little bit about your view as to the help or the hindrance by the Supreme Court, the present Supreme Court, and the maintenance of the rule of law, particularly in regards to executive actions and the shadow docket?

JUDGE MICHEL: Yes, as many of you have been reading, there's something that's colloquially referred to as the "shadow docket." These are extraordinary appeals taken to the Supreme Court, which are treated not in the ordinary course with briefing and counter-briefing, oral argument, and careful written opinions being prepared over many months by the 9 justices. The shadow docket results in no opinion rulings, often in the middle of the night, done in a great hurry. So you can't expect me to say, "well, this ruling was right or that ruling was wrong" because by definition, the legal system is one of subordination. And as a lower court judge, I was obligated and tried my

best to follow every ruling of the Supreme Court as it announces the law. But from the standpoint of the citizenry, it undermines confidence in the courts.

I don't think the shadow docket can possibly be a source of confidence because there's no explanation at all. You don't know what the reasoning was. You don't really even know what the full reach of the decision is. You can't even tell in a future appeal on the merits, once they get decided, because these are mostly pre-trial cases involving preliminary injunctions that get up to the Supreme Court on the shadow docket. I think it's a very unfortunate practice. I think all courts have to step up and change their methods to better serve the people, and I wouldn't exclude the Supreme Court from that injunction. Other questions?

QUESTION: Recently, in the *New York Times*, somebody raised whether it's appropriate for the reporters and the news outlets to identify judges based on whether they were appointed by a Republican president or a Democrat president. I'm just curious how you felt about that and whether you think it's important.

JUDGE MICHEL: That's a very good question. The short answer is, because of the First Amendment, they can do anything they want and I support that. I think the practice is a little unfortunate because the implication is that this judge is going to vote a certain way because she was appointed by an R president or she was appointed by a D president. In 22 years on the court, I did not see that, ever. People get appointed to a court; of course they had personal views before they got appointed. Of course they had maybe some political activity. They may certainly have been registered with one party or the other. Of course, some people register as independents, but still many would have had some connection. But when you become a judge, you go through enormous vetting. My pre-appointment FBI investigation—and I was a minor character—involved interviews of 300 people. So it's that thorough.

And the ABA did a separate investigation. The Senate Judiciary Committee did a further investigation. So, the vetting is very substantial. And when you're finally confirmed, you get appointed. That's when you actually start being a judge. Of course, you get sworn in right after the formal appointment. You basically have to discipline yourself that all of your personal views are now irrelevant. All of your prior political or public activities, writings, utterances, are now irrelevant. You have to guard against letting them seep into your decision-making. You have to rule based on the law, the precedent, the Constitution, and so forth. So I think it's very unfortunate that the press loves to always say, "that judge was appointed by President so-and-so, a Democrat or a Republican."

But they'll continue to do it. There's no way to stop it. The only trouble I have with it is it feeds the implication that judges are just political actors from one side or the other hiding under a black robe. It's not true. I can swear to you. It's not true. I can't even remember, most of my colleagues, whether they were Rs or Ds, because they never showed up in their decision-making, never showed up in their conversation in the conferences of the court after oral argument. But the public isn't in the secret conferences. The public isn't working in the courthouse. They don't really have a basis for saying: "Well, those judges are really totally apolitical."

They're not doing political warrior jobs, for either side, or any side. So the danger is the public will lose faith in the courts. And if the public loses faith in the courts,

ultimately, there's a risk of chaos, because if court decisions are viewed as illicit, then some people are going to say: "Well, I don't have to follow it." The court ruled against me, but I'm not going to obey the court's order. And of course, at the end of that, you have total chaos. And in the beginning of that, you have economic decline. Because if contracts can't be enforced and other rights can't be enforced, people are not going to start businesses. They're not going to expand businesses. They're not going to take risks. They're not going to invent new things. So a lot at stake here on this whole business. Will the courts be protected? Will the courts be respected? Can we maintain a legal system that will do what it was designed to do? Yes, sir.

QUESTION: In recent months, the Attorney General has not infrequently used the phrase "judicial overreach" to describe the administration's disagreement with the judicial system. Would you comment on the appropriateness of that phrase in terms of the balance of the three branches of government?

JUDGE MICHEL: Well again, the First Amendment looms and I guess the Attorney General, or the President, or Stephen Miller in the White House, or anybody else, can pretty much say whatever they want. Whether it's helpful or responsible is a completely different question. And it upsets me enormously to read in the newspapers, as many of you have, that the current Attorney General has described judges repeatedly as "rogue," as acting against the interests of the country. The President himself, the current president himself, has used extreme language and accused certain judges of being "leftist, Marxist lunatics," and many, many other ugly statements like that. So when you have the President, the Attorney General, and other high officials using that kind of inflammatory, condemning language is not healthy.

I wish they wouldn't do it. I guess it's a matter of norms and citizen expectations, not a matter of law. They can't be stopped from saying that, but they shouldn't do it. It's creating increasing trouble. And again, I think they're ultimately responsive, just like the Congress. The people in the administration are ultimately responsive if the public cares enough. Yes, ma'am.

QUESTION: You've mentioned attacks by the administration on law firms and judges. And then also the administration has not been very kind to the ABA. And I read somewhere that they were considering taking away the ABA's role in approving judges. Do you have any further information on that?

JUDGE MICHEL: Yeah, they already did that.

QUESTION: Oh, they did?

JUDGE MICHEL: They are not participating or facilitating any ABA involvement in vetting judges. This was started shortly after World War II, and it was honored by almost every administration, to a great extent. And I think it's very unfortunate that the ABA's role has been curtailed, and it's unnecessary. Of course, the ABA is a private organization. It doesn't have veto power. Its weight should be measured according to the quality of its reasons. But to exclude it from the process or exclude anything, any bar association, any organization, I think is a mistake and unfortunate. And again, I think we sort of come back to norms. There's nothing in law saying an administration has to cooperate with the ABA but they should because it's better for the country. Yes, sir.

QUESTION: First, I mean, thank you for a very interesting talk. Most of us agree with you. My question is, a number of years ago, the court decided *Citizens United*, which overturned the law that limited the power of cor-

porations and big donors to give virtually unlimited money. And as a result of that, most of the Congress was elected in the primaries, which because you have Musk on the right, it's almost on the left. Here's us, there's almost no center in Congress. You've seen that people are stepping down. And I wonder how much of this is due directly to the fact that we lost that center in Congress that could do some of the things that you suggested they do in terms of updating the law.

JUDGE MICHEL: Well, the problems are not only between the branches, but internally inside the branches. Congress is a good example. I had the honor of working there for seven years. It was in the 1980s. I was so impressed with the extreme high degree of respect, cooperation, bipartisan meetings and sessions to frame bills, behavior on the Senate floor, and I look at it today and I'm just horrified. It's a totally different institution today. And I think it's largely a result of gerrymandering and the toxic public discourse of extreme statements by leaders, really of both parties, and more than one administration. So that's really a big concern to me. And I've lost part of your question.

QUESTION: I guess my question was, the Citizens United opinion, which overruled limitations of the money?

JUDGE MICHEL: Thank you. That's part of it. Let me be arrogant for a minute. In three hours, I could write a bill that would pass constitutional muster and would control spending, excess spending on congressional races almost as well as the bill that was overturned. So it's possible to do this in a way that is constitutional, and it's still quite effective. But it requires Congress to act. It requires Congress to compromise. It requires the two parties to work together, as they did in the 80s, and really, to a great extent, continuously since at least the end of World War II. And we've lost that in recent times, and we need to get it back if we're going to be able to keep our society unified and attractive, and have a healthy democracy here.

So I thought that decision was, in a way, unfortunate. It is the law. And the answer to where a law that has a good purpose has been overturned is to do it again. Go back to the drawing board and come up with a bill that passes constitutional muster and achieves the same goal. That can be done in campaign finance. Getting it passed by Congress is a steeper hill. Good question.

QUESTION: Thank you.

JUDGE MICHEL: Thank you.

QUESTION: I hope you write the law and send it to the Senator.

JUDGE MICHEL: Sure, whatever you say.

QUESTION: Judge, thank you so much for your comments today. So historically, the Federal Circuit has largely been under the radar as far as political attention to the matters of the court. But that could be changing very soon, both with the upcoming tariff case, as well as possibly matters of federal employment. Do you have any concerns about how the court is going to respond to the increased scrutiny from the administration and how the court could possibly handle that?

JUDGE MICHEL: Well, I have a lot of concerns about the Federal Circuit. I loved being a judge there. I served for 22 years, two months, and two days. And I literally loved every day of it. I thought I would never want to have another job. But my time as a Chief Judge, which is age-limited, was coming to an end. I thought, well, maybe that's a signal that it's time to go on to the next stage of life and career. And so I did. And I'm glad I did, as much as I loved being a judge. But I

have watched, in the 15 years since I retired, the Federal Circuit function and compared it to the times when I was there in the 80s and 90s and up to 2010. And I'm discouraged by a number of things.

PAUL MICHEL: One thing is that the court was created primarily, there were other reasons, but primarily to bring clarity and consistency and uniformity to patent law in the United States. And it did that very well for several decades, in my opinion. And the problem it addressed was what you could call circuit dependency. Whether a patent was valid didn't depend on the patent. It depended on the circuit in which the litigation was ultimately decided. So they created the Federal Circuit. It ended that problem. But now we have a new problem, which is panel dependency.

So you have random panels of three, deciding cases, with the very rare exception. And if you have two panels decide the matter inconsistently, which is authoritative? Which is the law? You can't tell. And it gives lawyers, of course talented trial lawyers, have a field day with that, because there's a case supporting whatever position they need to take. Now, the solution to that is that you go *en banc* and resolve the conflict. But, in recent times, the Federal Circuit has very rarely gone *en banc* as a full court to rehear an appeal. To me, that's a mistake.

Again, there's no law that says they have to, there's no institutional fix. It's a matter of norms, leadership, followship. When I was on the court, it functioned as a team. It functioned as a family. Now it kind of looks like everyone for themselves to try to put their own personal imprint on the law. And that's very unfortunate. On top of that, the Federal Circuit is now inundated with Veterans benefit appeal cases by the thousands, and similar cases from the Merit Systems Protection Board, because of all these firings.

So the court is about to go from being a patent court to being a fired employee/benefit termination court, which is probably unfortunate and not a good way to incentivize the best talent to join the court. Let me just say one thing. I work for you. I'm willing to stay after we formally break as long as anybody has a question. Seth is being a good host and Master of Ceremonies to keep us on time; I will stay as long as anybody else wants to stay, unless we get kicked out of the room. Yes, ma'am.

QUESTION: Thank you for explaining very well the present situation, how different it is from the past. And my assessment, and the one you describe, is action. What is the behind that is fear. Everybody is afraid nowadays. What will be, in your opinion, a way to counteract the fear so people become much more heroic in overcoming these difficulties?

PAUL MICHEL: Well, trust is an important thing in life, at every stage. Building trust is hard and destroying trust is fast and easy. Trust is frail. So I don't have a magic answer. The courts have to behave properly. They have to be very disciplined. Of course, not everybody will agree with every decision. That's inevitable. But decisions can be respected, even when people disagree with them. And that used to be the case, and it's not the case so much anymore. So I think we have to rebuild trust, and I'm afraid to say it's to some extent, going to have to be from the ground up, from the citizenry up to the policy-making officials. The media can help a lot. They can help a lot more than I personally think they have of late. But they're a critical player here. So are the universities, and think tanks, and people in other fields.

And we have a guest here today who's an economist. I love economists because they have a perspective that's very important for judges to hear. Most judges are really

clueless about business matters, economic matters, financial matters, even though their decisions sometimes touch on these things. So courts need to listen to other disciplines and not just have it be a little inside game of people who have a law degree. But rebuilding trust is very tricky. I wish I had a magic formula. I really don't. But I'm sure it can be done. It's been done in the past.

Our country has been through many, many, many stressful times of internal severe stress. I mean, we had a civil war where hundreds of thousands of people died. That's the most extreme example. But we've had other smaller, violent, and otherwise harmful fights. It's a constant challenge to make society work, to make the legal system work, to make democracy work. And it's really everybody's job in the end. So I hope everybody will consider it. One of the things I ought to try to do to the extent I can. Yes, ma'am.

QUESTION: Thanks for taking one more question. A two-part question. One, do you have a website? Does your group have a website?

JUDGE MICHEL: Yes, we do.

QUESTION: Oh, good.

JUDGE MICHEL: It's called Keep Our Republic, Article 3 Coalition. Keep Our Republic, K-O-R, is the parent organization. It's been in existence for five years. It was created to try to show people in the public that a lot of the claims about election fraud were false. Of course, almost every claim was rejected in court, but the public didn't get the memo, it seemed like, to a great extent. So this group worked very hard to explain and publicize in detail the election security measures in place, and they've been improved over the years, and they ought to be improved to the max for sure. But that was what Keep Our Republic was formed to do. And this Spring, because of some of the circumstances I've tried to summarize, they felt that they needed to turn their attention to the independence of the judges, decision-making, and the rule of law, checks and balances, and all the rest that we've been talking about.

So they formed this coalition, and I got drafted to help and head it because one of the original head persons had to drop out. It was the easiest decision. It took me about two seconds to say: "Yes, of course, I'll do it." I'm now working full-time on it. So it does have a website. It is more and more in the news. Our judges have been at the National Press Club in the last week and a half, on NPR, on the NewsHour, and other major media outlets, and that will be increasingly true in the coming days and weeks. It's a brand new organization. We're just getting off the ground, but we're moving very fast.

There's a smaller group that I help lead that functions in effect like an executive committee. So I'm back on the executive committee like I was during my judge-years. So this is a terrific organization and it has a very good staff. It's supported by 8 or 9 foundations that you all know, responsible, sensible, philanthropic foundations. So they've got some money, they've got a very good staff, and now they've got all new volunteers, judges, big brains, big egos, and big ambitions.

QUESTION: Okay, question two. I assume that you will put your recommendations when you get them on the website. What I am thinking, I discovered the power of just emailing everybody I knew with a request to do something. And they e-mail people they knew. And our recent, when I did this recently on one piece of action, I discovered I had generated at least 125 emails to a certain person expressing a certain point of view. And so it's funny, but just sending out an e-mail to folks, can produce significant action.

JUDGE MICHEL: Everybody can do something –

QUESTION: But I do have a specific question –

JUDGE MICHEL: You never know how the ripples will go. So start ripples.

QUESTION: What I would like, I'm wondering your opinion of, if people wrote to their congressmen and suggested that Congress adopt a law that increases the penalties for threatening federal judges or state judges. If they could be included under federal law, some sort of new regime of penalties, would that be a viable kind of thing?

JUDGE MICHEL: I think the penalties may be sufficient the way they are, but it wouldn't hurt to increase them too. But I like your idea of an e-mail that leads to more emails to friends that multiplies and multiplies and has some impact in the political policy-making world and the executive branch and the Congress. That's grassroots, that's the groundswell that I think the country needs. Lots of other people have to do what they can too, but everybody can help. And there's like no action that's too small because you never know the full reach of the action. Thanks so much for your attention.

VI WINEMAKING IN LIVERMORE VALLEY, CALIFORNIA THE STORY OF LONGEVITY WINES

By Phil Long

June 20, 2025
Federal Circuit Bar Association
Bench & Bar Conference
Meritage Resort, Napa, California

Transcript has been edited for clarity.

JOE RE (PRESIDENT, FEDERAL CIRCUIT HISTORICAL SOCIETY): I'm glad you all could be here in Napa. I'm at Knobbe Martens in Southern California, but I do love coming up here. It's my distinct pleasure today to introduce to you Phil Long. Phil Long's right here. And I had the pleasure of seeing Phil do a wine tasting three or so years ago at an AIPLA meeting. And I'm happy to see that Phil is still using his AIPLA swag bag.

Phil has a great story, I can attest that his wine is excellent. And in fact, I bought some, coincidentally, last Saturday at the Pavilions, in Newport Beach, California.

Phil Long is the founder and winemaker at Longevity Wines in Livermore, California. And for those of you not familiar with Livermore, Livermore is about an hour south of here across the water, but about an hour southeast, I guess a bit.

He's also president of the Association of African American Vintners. He started with his first bottle of Syrah he made with his late-wife, Deborah, in their garage in 2002. It's starting to sound like a long time ago. His approach to winemaking has been continually to challenge himself to make the best wine he can. And he's passed on his talents to his son, I'm glad to see, who is now an assistant winemaker at Longevity. He uses locally sourced grapes from the Livermore Valley, and he's going to talk to you how he started, from a hobbyist to an award-winning winemaker in the Livermore Valley region. Elizabeth is here, his spouse, who you all know, practices at the Patent Office, which is another coincidence. He's also going to talk about the history of the Association of African American Vinters.. It's my pleasure to have all of you here.

JUDGE WALLACH: I'm going to interrupt for just one second.

JOE RE: And I yield to Judge Wallach. Judge Wallach, coincidentally, is the judge who replaced my father at the Court of International Trade, 1995. I yield to the bench. Judge Wallach of the Court of International Trade, now with the Federal Circuit.

JUDGE WALLACH: Just one thing, I imagine a lot of you were at dinner last night. Please don't talk during the presentation. I was displeased by the rudeness last night. Thank you.

JOE RE: Thanks, Phil.

PHIL LONG: I think the judge yielded back. Okay, we've got a clicker.



Well, good afternoon, everybody. How's the conference been? Can everybody hear me? Okay, that's the bigger question. Thank you, Joe. As previously mentioned, I'm the founder, owner, and winemaker of Longevity Wines. We're located in the Livermore Valley. We're about 63 miles southeast of here. We're directly 40 miles east of San Francisco. Today, I'm going to take you through a journey on how someone like me ended up in a place like this.

This is the Historical Society, so we should begin with a little bit of history. I hear you all got a little schooling on the history of Napa last night.



Our story commences in 1839 when George Calvert Yount, a settler in the Napa Valley, planted the first grapevines in the region. Recognizing the valley's potential, Yount's efforts laid the groundwork for future viticulture. The town of Yountville stands today as a testament to his enterprising spirit. The mid-1800s saw a surge in winemaking. In 1858, John Patchett established the first commercial winery; vineyard, and winery in Napa. Shortly thereafter, in 1861, Charles Krug founded his own winery, introducing innovative techniques that elevated wine quality.



This period witnessed rapid growth, with over 140 wineries operating by the 1880s, including notable names like Schramsberg, 1862; Beringer, 1876; and Inglenook, 1879. However, prosperity was challenged by the phylloxera epidemic in the 19th century, which decimated vineyards. The situation worsened with the enactment of prohibition in 1920, leading to the closure of many wineries. Only a few, like Beringer and Louis Martini, survived by producing sacramental wines. The repeal of Prohibition in 1933 marked the beginning of Napa's revival.

In 1944, seven vintners formed the Napa Valley Vintners Association to promote, protect the region's wine industry. Pioneers like Andre Tchachov, known as the Dean of American winemaking, introduced modern techniques and improved wine quality and consistency. A pivotal moment occurred in

1976, during the Judgment of Paris. This is the Judgment of Paris:

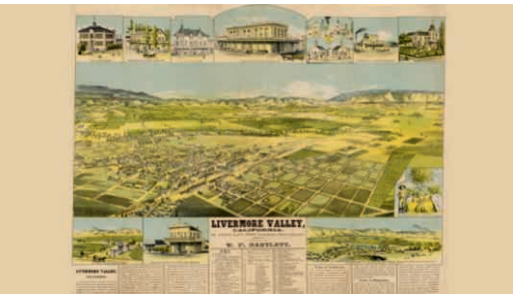


The Judgment of Paris is a blind tasting event. In 1976, Napa Valley wineries outshone esteemed French counterparts. Chateau Montelena, Chardonnay, and Stag's Leap, Cabernet, scored top honors, catapulting Napa onto the global stage.

How many people have seen the movie Bottle Shock? If you haven't seen it, it's a must-see. It chronicles this entire tasting in sort of a docu-comedy movie. Very enjoyable, very fun watch. We'll get to my story here in a little bit. It's amazing how that story was significant for the winemaking industry, not just here in Napa, but in America in general. It touched me personally. I literally have collaborated with Heidi Barrett.

For those of you who don't know who Heidi Barrett is, the Barretts own Chateau Montelena. Beau Barrett, is a kid in the movie in the boxing room with his dad. Beau and Heidi are a couple. Heidi has been the winemaker at Screaming Eagle. And for those of you who haven't heard of Screaming Eagle, it's one of the most prolific cult wines here in the Valley. She and I used to collaborate on fruit we would get from the same vineyard up in Lake County. I've had the honor of having lunch with her and collaborating on lab numbers and so forth. So even something as significant as that, as big as this wine world is, it still is a very small family.

Today, Napa Valley is home to over 400 wineries, producing a diverse array of world-class wines. The region is renowned for its commitment to sustainability, with many wineries adopting organic and environmentally friendly practices. Napa's unique terroir is characterized by its Mediterranean climate, diverse soils, which contribute to the exceptional quality of its wines. From humble beginnings to international acclaim, Napa Valley's winemaking history is a testament to preservation, perseverance, innovation, and passion. As we savor the wines from this remarkable region, we celebrate not just their flavors, but the rich heritage and dedication that have made Napa Valley a beacon of world wine.



Livermore Valley. I mentioned my winery is in the Livermore Valley. While Napa and Sonoma often dominate the conversation, the Livermore Valley, just 35 miles east of San Francisco, and as I said, 63 miles south, holds a legacy every bit as deep. And it's arguably even more foundational to the story of California wine. The Livermore Valley's viticulture story starts in the 1840s to 1850s, when Spanish missionaries and early pioneers recognized the valley's Mediterranean climate and gravelly soils are ideal for growing grapes. But it wasn't until 1883 that the region made its mark, thanks to two pioneering families, C.H. Wente and James Concannon.

Both men planted cuttings from famed French vineyards, particularly from

Bordeaux, and established the first commercial wineries in the Valley. Wente Vineyards, still family-owned and operated today, is widely considered California's oldest continuously operating family-owned winery. Concannon Vineyard played an equally pivotal role, becoming the first American winery to produce Bordeaux-style wines and, later, first to bottle Petite Syrah as a single varietal.

By the early 1900s, Livermore had become the premier wine region. In fact, we talked about the Paris Exposition, wines from Livermore Valley, yes, Livermore, won international gold medals in the 1889 Paris Exposition. There was no TV. There was no internet. There was no TikToking those awards. The interesting thing is Napa won awards at a time when media was a lot more prevalent and Napa's fame exploded. Livermore, we still stayed a quaint region, and we still love being that region. This is the Paris Exposition.



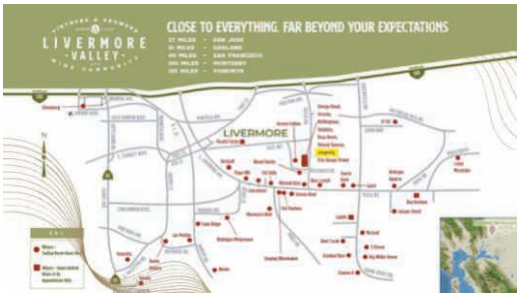
Even more remarkably, over 80% of all Chardonnay vines in California, trace their generic heritage to a single clone developed in Livermore in the 1910s: the famous Wente clone. Then came Prohibition in 1920, a devastating blow to the entire California wine industry. Many wineries shuttered and vineyards were unrooted and neglected but, unlike many, Wente and Concannon both survived, again, producing sacramental wines and selling grapes for home winemaking, a legal loophole that kept their operations alive.

Growth slowed dramatically for several decades, overshadowed by post-Prohibition expansion in places like Napa and Sonoma. It wasn't until the 70s and 80s that Livermore enjoyed a renaissance. Encouraged by the success of Napa at the '76 Judgment of Paris, local growers and winemakers reinvested in their vineyards, improving quality and reestablishing Livermore's reputation.



Today, the Livermore Valley is home to over 50 wineries, ranging from multi-generational estates to innovative boutique producers. The region has embraced sustainability, small-lot fermentation, and wine tourism, all while maintaining its unique character, warm hospitality, agricultural roots, and devotion to winemaking tradition.

What perhaps is most fascinating is how the quietly influential Livermore has been critical in shaping California wine. From the Wente clone, to Cabernet Sauvignon rootstock used by the prestigious Napa wineries like Mondavi and Duckhorn, the region has contributed— behind the scenes—to the state's global wine reputation. Livermore Valley may not be the loudest voice in the room, but it's one of the oldest, wisest, and most generous contributors to California's wine legacy. The region not only helped launch California wine making, it continues to innovate with grace, tradition, and quiet pride. Here is a map of Livermore:



Now, we're going to talk a little bit about my history. I was born in Washington, DC. I was trucked off to Oakland, California, where I lived with my grandparents and went to nursery school. I went to kindergarten in Southern California. I spent my entire early life in Southern California. Loved Southern California, not exposed to wine, whatsoever. My parents were never really "wine people."

I went to college at Cal Poly, Pomona, where I earned a degree in architecture, of all things. During my entire tenure at the college, I had no idea wine was even made in this country. I just figured they must all come from France, right? 'Cause, isn't that where wine's from? I had no idea. The guys that used to walk around with cowboy hats and boots, they were called Aggies. I thought they just dealt with cows and horses. Little did I know.

I literally went through college not knowing anything about wine. Ironically, that same university has now archived my brand, Longevity®, in the special collections unit in the University Library as the work of one of their most successful graduates, a graduate who didn't even know wine was made here.

If you don't know anything about wine when you get out of college and you start dating, you better learn something about wine if you're going to date. Deborah and I started learning about wine, liking wine. In 2002, my firm moved me up here to Northern California, as their Creative Director. Still liking wine but not really embedded in it. I'd lived in Southern California basically my entire life. So, when we moved here, what do you do when you move someplace new? You get out and you explore. Deborah and I would get out exploring our new surroundings. Well, here in Northern California, you can't drive in any direction without ending up in wine country.

So, every weekend we'd get out, we'd drive around, we'd end up in wine country. And, for some reason, the bug of the process bit. Being a creative my whole life, that art portion, that creative process of making wine, bit. So what do we decide to do? We're going to start making wine in the garage. Oh yeah, we're going to do it. That was 2003.





The picture on the left is of the first grapes I ever made wine from. I wanted to make Syrah. I had an epiphany with a bottle of BV Syrah a friend gave me. I didn't know what Syrah was. I'm like, why couldn't he give us a cab? But Deborah and I opened that bottle of BV Syrah. We took it down to the beach. We poured it in plastic cups. And I remember tasting the wine and for the first time in my life, actually tasting the fruit. And that still sticks with me today, tasting fruit in wine for the very, very first time.

So, if I was going to make wine, the first batch was going to be Syrah. I didn't want to make it from a kit. I didn't want to go half

from juice or concentrate. I wanted to go whole hog. So that picture of the first grapes, that was our first pick. On the right, that was our first press. Like any other journey we're on in life where we're learning something, you don't know what you don't know. I remember cranking this press in the garage and Deborah saying, "are you going to taste it?" I said, "I'm not going to taste it. You can taste it." Neither one of us knew what it was at that point. It's wine and you can taste it. It's very young, it's very fresh, it's just through fermentation. We didn't know then. But that's how the journey started.



We moved into making more wine. That first 30 gallon barrel of Syrah in the garage, it was also our family room and I'd rub that thing every day, and covet it for nine months. It was around month 10, I realized it was crap. But, I knew the reason. I knew what I did wrong. I knew exactly what I did wrong. I didn't make enough! So we're going to make it in 60 gallon barrels next year, because that's the standard size barrel, 60 gallons. You start shopping for 60 gallon barrels. Well, now, a 60 gallon barrel, that's 600 pounds full. So now you got to buy a rack, and a forklift. Then, when you get the rack. It's like, "Oh, it holds 2 barrels." Oh, wait a minute. They stack! Sooner or later, we ended up with a 12-barrel purpose-built, climate-controlled barrel room in the garage.

Deborah finally said, "look, we're either jumping in or we're jumping out, but we can't keep going because you can't sell it." You can, now. Legally—we are all people of the legal profession. You can produce 200 gallons per year per vintage at home for private consumption. You can send it to home winemaking competitions, and so forth. Anyway, we ended up with a lot of wine. So, we were going to jump in or jump out. Well, obviously we jumped in. We opened in the Livermore Valley in 2008, in a little tiny 1,000 square foot industrial space. And I remember, before we opened, we procured our retail-wholesale license, so we could buy and sell wine.

Deborah came up with the name. Let me go back to the name a little bit. We're in there, cleaning up the mess from wine making. And we started talking about names for the brand. And I said, "hey, how about Long Family Cellars?" And she just kept sweeping. "What do you think of Long Family Cellars?" And she just looked up and said, "what other family do you see cleaning up this crap but you and me?" I said, great point! She came up with Longevity. Our last name is Long, hence, Longevity.

She was the one, she came up with a lot of the names. The little dog right there, I don't know if that was his first vintage. His name was PressTon, but it was spelled with two S's and a capital T, like you're pressing a ton of grapes. So that was PressTon. That was probably around 2009 or so, a year after we opened. See how many bins we have back there.

In 2009, we got a little bit of wine into Costco. I had designed a very elegant label, again, having a designer background. And the sommelier at Costco said, "Dude, you know, it's really an elegant label, but when you put it between other, lighter labels, it becomes a black hole." People don't, their eyes don't read it, they read over it. So, we set out to redesign the label, or I set out to

redesign the label. And I started thinking, what are things that inspire the label?



These are some of the hearts I used to give Deborah on Valentine's Day, every Valentine's Day. She amassed this huge, huge, huge collection of hearts. So, when I redesigned the label, let me see, there you go right there.



If you look at it closely, it has hearts, grapevines, and grapes, and more hearts in the label. It just really represented our lives together at the time. Now, there's a reason why all those registered Rs are all along this, because as Elizabeth tells me now, the expert in this field: Don't wait to trademark your brand. We started Longevity Wine Club, using that license we had early on, which was an online wine club. We could buy and sell online. We had club members. We had club member releases. It was a great jump into the industry without a massive capital investment.

Well, some winemaker, I won't mention the name, in the State of Washington, saw our website and he said, "huh, that would be a great name for one of my wines." Meanwhile, I'm working full time. Deborah's working full time. During harvest, we're working 14-, 16-hours a day. It was nuts. And I didn't take the time to trademark it.

Well, he did. Next thing I know, I get a cease and desist letter. I bet you know what that is, don't you? And I'm like, what are you talking about? He had trademarked "Longevity" and was using it for one of the names of his wines, where it was our entire brand. Long story short, we put some of your kids through college, you understand how that goes. We ended up agreeing on shared use of the mark. So that's that lesson I learned. Don't wait to trademark your brand.

As the story goes, I had the opportunity to partner with one of the largest names in the wine industry in the world at some point, which we'll get into. But before I could do that, I needed to have full ownership of the mark. We started doing some research. The guy in Washington State forgot to file to renew it! In the time he forgot to file to renew, and the time that I found out, a distributor in Texas had jumped in and trademarked it.

So, okay, we're thinking, okay, this is an easy fix. Obviously, we had first use. We had records of our first use. So, we were able to, let's just say, get it back. So now, we have the brand. What does the guy in Washington do? He refiles to take it back—with a brand new first use date. He just looked at when we had it and backed it up. He had no proof of it. And thank goodness, the Trademark Office, they laughed. I say they laughed at it. They threw it out. Like, dude, you put first use on another date and now you put the first use here. No. We were lucky. We retained the brand. That particular brand, that particular label, has become the iconic Longevity label.



It's been seen on all these TV shows. How many people saw Big Little Lies? Remember the second, I'm sorry, the first season when they're all sitting around the table and Reese Witherspoon says how great the wine is? Look at the label on the table. So, the label has become very, very popular.



This is just a smattering, that would fit on one slide. Press, the brand, myself, this is just a small sampling. We're well over half a billion media impressions. Many TV shows, many interviews, many accolades.

I was nominated for a Wine Star Award from Wine Enthusiast Magazine for Social Visionary of the Year. That was 2020. We've been on 2 PBS specials, one with Fresh Glass. Another just recently, with Made from the Heart. Made from the Heart America. It's an Emmy award-winning team that produces a special called Made from the Heart. It's about artisans in a particular country. This is Made from the Heart America. It's about 10 artisans from boot makers to old print-from-block makers that are still doing their craft. We were one of those artisans in that show.



So, the press continues. That was just released in March. Essence Magazine, we've been on the cover of Wine Business Monthly. And I'm just kind of going through this as just some of the past Press.

I was named one of the most influential black wineries in the country by Wine Enthusiast Magazine. One of the things that happened, I mentioned earlier, in 2017, I had the honor of meeting Fred Franzia.

In the wine industry, the Franzias stand out. I had the honor of meeting Fred Franzia. I won't go through all the things he said. He was a little rude, but in 2019, we formed a partnership to expand Longevity, the production and distribution. At that time, we were still just a small mom-and-pop winery, let's just say, regional.



I say we; I forgot to mention one very important thing. In 2019, Deborah passed away from pancreatic cancer. And before she left us, if you've seen it on some of the slides, you can see it above. The entire Longevity heart logo is on my left arm. So she'll always know, she's going to be around

for the journey. She was part of the beginning. She's still here. As you notice, my right arm in other photos is blank because Elizabeth owns that arm and we don't know what it's going to be yet.

But anyway, we partnered. We started regionally. Now we're distributed in every state in the US. We've shipped to Japan. We have shipped to the United Kingdom. And I'm probably one of the top five black wine makers in the world. So other accolades.



Who's heard of the Met Gala? There were 6 wines poured at the Met Gala. This was one of them. There were only 2 wines on the menu. We now have several labels. We have the Longevity White, the Longevity Black. We have Four Hearts. We have Phil Long Reserve. The Phil Long Reserve, Alexander Valley Cabernet was served at dinner at the Met Gala. The reason for that is the theme of this year's Met Gala was "Super-Fine." I don't remember the exact name, but it's about the history of black fashion.

And about nine months ago, Elizabeth said: "Hey, you need to try to get AAAV's wines there". I'm the President of the Association of African-American Vinters. She says, you need to get AAAV's wines at the Met Gala. I'm like: "How's that going to happen?" I said, "You've got to know somebody." This is not a sales call. You've got to know somebody. Elizabeth says: but you do. And I'm thinking: "Call John." I'm friends with John Legend. So, I reached out to John. Two weeks later, John got me the name of the beverage manager for the catering company for the Met Gala. We had a conversation. He went to AAAV's website because of the theme. Every single wine that was served at the Met Gala was an AAAV member's wine.

There were four other members' wines served on the cocktail list, and there were two wines served at the dinner: my wine and Andre Mack, which is Maison Noir, his Chardonnay.



My other new partner in crime here. That's the Supreme Court. And yes, that's my wine. This is the Giles Rich Annual Dinner. I've not yet had my wines in the White House. That's still a challenge, but they have been served at the Supreme Court.

The founder of AAAV's name is Mac McDonald. Mac founded the Association of African-American Vinters back in 2002. He was a farmer from Texas, came to California, he was a black winemaker, and started getting massive press. I remember reading it in the Chronicle and Wine Spectator. Not because he was a black winemaker. He was making mid 90-point Pinots from Sonoma, and just happened to be black. The way Mac tells the story, he says: "I used to go to events and people didn't look like me." So, what he started doing when he did find people that looked like him, he started banding them together. They started sharing resources, information, how to grow the industry.

Back then, I don't even know if the number of zeros on a digit scale could go far enough to identify the percentage of black wine makers in the industry. Today, we are up to 1%. That's it. That's as far as we've come. I met Mac around 2011, 2012, at a Black History event in San Francisco. And we stayed in contact. I think in 2016-ish, he invited us to come pour at the annual symposium. We did. And a week later, I get a phone call. He says, look, man, we need you. So, we joined in 2018. There was a meeting in San Diego, they invited Mac to come speak on the state of the wine industry. He invited me to come with him. Somehow, they got my title screwed up as VP of AAAV. I called him and said, "Dude, how'd this happen?" Mac just said, "Leave it alone, man. Just leave it alone." I'm like, "Okay."

But then I said, all right, how are we going to continue this journey and how do I really get there? He says, no, you've earned it. I became Vice President in 2018. In 2020, I became President of the Association of African-American Vintners. Obviously, a year we all remember between COVID and George Floyd. It was an interesting journey that year, learning how to sell via computer. Learning the support that we really do get as a minority in the wine industry.

There are those who I call the "Bandwagoners" who always jump on and they jump off when you're not the story of the day. But we have some great supporters like Jean-Charles Boiset, here in Napa. He's a great supporter. Wine Enthusiast Magazine is a great supporter. So AAAV has a rich history and we've grown, I don't know, 1,000% since the time I joined at least. There are only about approximately 100 of us in the country.

And that's it. So we're continuing our education, our awareness. We do scholarships, mentorships, Napa Valley Wine Academy. The goal is to create more diversity in an industry where not a lot of diversity exists.

And that's actually how Elizabeth and I met because patents and trademarks and invention is another industry where there is a lack of diversity. That's how we met. Just recently, and I mean recently as yesterday, Mac McDonald's original brand, Vision Cellars, he has decided, at 80 years old to close down and take care of his ailing wife. We're now trying to figure out how to really honor his brand moving forward, but he is no longer with the organization. He's no longer selling his wine. But that's the history of AAAV and how I became involved.



Let's go back to partnership. That's Joey Franzia there on the middle-right, he's the short guy. And the guy next to me on the left is the owner of One Hope, just down the street here: One Hope Winery. We did a collaboration. I wish I had a slide with a picture where we bottled one of my wines that he



sold to all his network of club members with the heart on it. It was a really elegant heart.

Just a little bit of background on Mac. I brought up the White House before. Mac's wines have been served at the White House, multiple times. He has all these great plaques and memorabilia from there. And I know that's always been one of my goals. He, as far as I know, is the only African-American winemaker to ever have his wines served at the White House. But I got the Supreme Court and he's got the White House, so it kind of evens out.

When you get to this level in winemaking, it's not like going out and knocking on doors. There's massive groups of companies that control catering in the different museums and so forth. The Thompson Group has some of that business. There's another one in Chicago, very large. It's not like you're approaching the museums. You're approaching the group that handles the food service for museums. And those are very, very large groups, are very, very hard to get into. Now, I do have my wine in a lot of restaurants in the Thompson Group. I believe they have some museums, but we're still working on that.



Just a little bit more on AAAV, that next to me in the middle picture is Lisa Lyon. She's the wine buyer from Meijer. Big grocery store chain, Midwest. Yeah, we're in Kroger, Meijer, Food Lion, Vons, Pavilion, Safeway. We've been in Target. So, but it's definitely a journey getting your wines out there.



These are the current wines we distribute nationally. I throw this out there because, when you get your wine on the shelf, it doesn't matter who made it, it's how good is it and does it sell. Well, all our white label Longevity wines, the lowest scores, 91 points from Wine Enthusiast Magazine. Not Joe's backyard rating service; from Wine Enthusiast Magazine, which I'm quite proud of.



We also have introduced our Phil Long label over the past several years, which is also doing very, very well. The one we served at the Met Gala is on the right above. Joe Re just had a bottle of the one that's on the left. He can attest to that.



So, we're continuing our journey. Going back over a little bit of history. Yes, that's Heidi Barrett (Montelena) on the left; Gloria Estefan, in the middle; John Legend, on the right. There I am at AIPLA. And this is Jean-Charles Boisset, who, for those of you unfamiliar with Jean-Charles, he owns: Raymond, DeLoach, Buena Vista, Elizabeth Spencer, and Oakville Grocery. He's married to Gina Gallo, and they live in the old Mondavi Estate, Wappo Hill. Yeah. Yeah, exactly. To be him. But I love him. He's a great, great friend and a great supporter.



The future. Joe mentioned earlier my son, he hates that picture because he's probably weight 40 pounds less than he did in that picture. I gave him the title Assistant Winemaker. But in all reality today, he makes most of the wine because I'm on the road, selling, doing my thing. He does the heavy lifting, along with my general manager, Tammy, my taste room manager, Roland. And that allows me to be on the road and keep the wine sales going at the national level. Yes, that's his son, my youngest grandson, on the right, Caden. He's got to be nine now. Yes, that's him punching down the grapes during harvest one year. That's Connor on top of a tank, cleaning out a temporary poly tank. They're involved in the business and having fun with it, which is very, very cool.

And, you know, having a partner now, Elizabeth, to help me along is also massive. I love her support. Thank you, Sweetie. And that's pretty much it. I'm going to open it for questions so you get a little Q&A here.. I know you guys are anxious. You're in the most beautiful place in the world with the most beautiful wines in the world. I don't know what you're doing sitting in this room but I'm going to I'm going to open it for Q&A and I'll let you go. Yes, sir.



QUESTION: [inaudible] You know, that's a really interesting question. I was surprised they didn't serve you guys wine at lunch. That's a great question. Elizabeth, on the way up here, said we should have had a bottle sitting on the podium. That's OK, but we should have brought some. We didn't really know how many people would be here. Honestly, I didn't know if this room would be 10 people or 150 people. I had no clue what I was coming into.

QUESTION: [inaudible]

PHIL LONG: Yes, sir… That's a great question. So, it's a multi-pronged answer. When we first started making wine in the Livermore Valley, we started buying a little bit of fruit just here and there because we didn't need that much. You know, to ask for 500 pounds of grapes is pretty insane but that's how small we started. From that point, we grew into the vineyards we were buying wine from, and then we took over the vineyards by leasing the vineyards and controlling the vineyard to get exactly what we wanted out of the vineyards. We still do that today to some extent in Livermore. When we part-

nered with the Franzia family back in 2019, they owned over 45,000 vineyard land acres in California. That's more than exists in the entire state of Oregon. That partnership gave me access to all the fruit needed for a national program, my choice to become successful. So, I guess the answer is sort of, if that helps.

PHIL LONG: Any questions? Anybody else? Yes, sir.

QUESTION: So how did you actually learn? How do you go from… [inaudible]

PHIL LONG: That's a great question. How do you learn to make good wine? Because you can make wine in about three steps, no brainer. You know, you get fruit, you ferment it, you juice, it's wine. It's crap, but it's wine. It takes about a hundred, those hundred little steps that you learn to make a drinkable wine, let's call it, but it's the thousand steps that define a winemaker.

When I first started and thought we could make a little wine, I decided to go to this wine supply store and buy a book, right? So that's where you start. You start with a book. It reminds me of a story I heard on the radio, a thousand years ago, about this date. He took her girl on a date for the first time, and he thought he was going to take her sailing, so he read a book on sailing. Anyway, I went to go buy the book, and there was a guy at the store. It was Beer, Beer, and More Beer, believe it or not, wine supply store, beer supply store in Concord, California. And I said: "Hey, I'm looking for a book. I'm thinking about making a little wine." So, he suggests some books. Really nice guy, Austrian guy. His name was Shay. He says, "go read the books, but write down the steps and then come back and talk to me."

Went home, read the books. But instead of writing the steps, because I'm a creative, I wrote them in a sketchbook, I sketched all of the steps—drawings of all the winemaking process steps. I come back, I sit down with Shay. I mean, he's this guy, he's Austrian, he's got his massive handlebar mustache. He's going by each sketch, "yes, yes, yes, no!" Okay, it's all right. It's okay. Calm down.

Anyway, that started us off and he said, "I think you're ready." I said, "you mean this season?" 2003? He said, yes. As I said earlier, you don't know what you don't know. We knew enough to make wine, but we didn't know all the steps to make good wine. All those steps to make good wine, they just took a lot of trial and error, which is an interesting phrase in the wine business because you get one shot a year. That's it. You get grapes one-time a year. I didn't start making wine until my 40s, so I'm already two decades behind people coming out of [U.C.] Davis, who know more than I do. But I had a lot of mentors, a lot of great mentors, especially in the Livermore Valley. I could name them, at least two of them have passed away at this point. But before they passed, I became more mentors to them than they were to me, which is a pretty cool honor. A lot of trial and error, a lot of work, a lot of questions. There's never a stupid question. There's just stupid silence. So, listen, learn, and keep perfecting your craft.

QUESTION: … [inaudible]

PHIL LONG: Yes. The short answer is everything matters. There's a phrase in French called "terroir." Terroir basically defines a wine's sense of place. Terroir includes soil, climate, topography, rainfall, region, all the things that go into that grape is its sense of place or terroir. So yes, on a hillside facing the sun, your vines are, especially because you have to have them stepped as you go up, they're going to get a different amount of sun than the ones that are growing on a flat. Everything comes into play in how you

grow grapes, not only just where you grow the grapes, like you're saying on slope or flat, but how you treat the vines in the situation that they're in. On the slopes, you not have to leaf the as much; you have to leaf them more if they're on a flat. All those questions come into play. Winemaking doesn't just start when you pick the grapes. Winemaking starts the minute you finish picking the last season. So yes, it's very important and all that comes into play. It's just another factor. Anybody else questions?

QUESTION: … [inaudible]

PHIL LONG: Were they planted or were they unplanted? Oh, the lecoupe? Yes. That's a pruning technique used to protect the young vines until they get strong enough. That's just to protect vermin from chewing on the bark, from getting to them. It's just to give them a little bit of extra protection until they get to be strong enough on their own.

QUESTION: …is it every year?... [inaudible]

PHIL LONG: So, from the time that you plant grapes in Europe, they call each year a "leaf," right? In Europe, you can't even water in certain regions after the third leaf, third year they've been planted. The third year is really a storytelling year. It tells you whether there's going to be something to use that year or not. A round number is four to five years, to start getting fruit.

How long does that fruit go? That's the other end of this question. Because here in California, we have 100-year-old Zinfandel vines. They're 100 years old. Now, what happens at 100 years old? At 100 years old, a vine is producing absolutely astonishingly good fruit, but very little.

At some point, you have to question your ROI. Right? Old vines at that point, you can charge a little bit more for it. It's great wine, it scores well, but are you making enough off from that vineyard? Because at some point you need to replant. So, it's a juggling match of: yield; quality; and your return on investment. The whole winemaking business is a juggling match. When we pick grapes here in a couple months, we don't see money from that drop anywhere from 90 days to three years. How do you forecast, not even knowing when the wine is going to say, "I'm ready," it's ready to bottle, it's ready to age in the bottle, or put on the market. It's just this massive juggling act of trying to stay stay ahead of the ball, so to speak. Same with the vines.

QUESTION: [inaudible]

PHIL LONG: Going back to those three basic steps, right, that you can make wine in three steps. It's crap. You have to be ingenious enough to use the resources that you have, and do as much as you can with them.

We didn't start off, buying a bunch of land, and waiting five years. We started out making wine in the garage, right? What do you need for that? You need some equipment and you need fruit. That's it. You need packaging in the end. That's it. So, when you narrow it down to that and then you start scaling that without vineyards, there's fruit everywhere.

Right now the trend is vines are being pulled out because there's more fruit that makes wine, than there are people to drink it. I've heard estimates, we could pull out another 50,000 acres of vines in California and still be behind what the consumption is today. The trend is, when I grew up, it was, as I said to Joe earlier, it was Coors, Bud, or wine. Those are the choices. What are the choices today? We've got craft brew on every corner. You've got craft spirits everywhere. You've got cocktails in a can. You've got CBD. You've got mocktails, not drinking wine at all. There's all these

choices now that young people have; where wine has always been something you had to actually learn something about. What do you need to know when you pick up a High Noon? You don't need to know anything. It's an easy pull.

And then there's the whole health craze of not drinking wine at all. The bottom line, consumption, has plummeted and is still plummeting. We're waiting for it to level off before we can start seeing it go back the other way. That is the challenge today. And it has been the challenge for the last several years. How do we get more, younger people drinking wine? And that's a huge question.

But back to your question, let's just say there were, there were a little funds available, through a sizable bonus I got in the corporate world. It wasn't that sizable, trust me, but it was enough to get us going. So, someday, we'll make money. Phil Long: Anybody? And that's what they say about the wine business. The secret to making a small fortune in the wine business is starting with a big one. That's the total secret. Anybody else questions? Yes, sir.

QUESTION: … [inaudible]

PHIL LONG: Right. It's no, it's very, it's very common. You know, Mediterranean climate, olive trees, olive oil, wine, it all goes hand-in-hand. So we're just kind of mimicking the same climate, the med climate, you know, in Europe. There's no real reason other than aesthetics, that we have for all of the olive trees.

Now, when you see rose bushes at the end of a row, they're there for a reason. They're not there for decoration. I mean, they are. But the real reason they are there is because of the bark beetle. Before the bark beetle will eat the vine, it will attack the rose plant. So, when you see your rose bushes going downhill, that's the time you need to spray the vines. So, roses play a key role, pivotal role. We won't get into the whole environmental, organic, issue because we could be here another day talking about that. We won't go down that road today. Anybody else? Questions?

Well, cool. Thank you. I really appreciate you being here. Thanks.

VII. THE FEDERAL CIRCUIT HISTORICAL SOCIETY IN 2023

The Federal Circuit Historical Society was organized in 1999, for educational and other charitable purposes as provided in section 501(c)(3) of the Internal Revenue Code of 1954. The Society' mission statement provides: the Society seeks to increase the awareness of the public, policy makers, academics, litigants, and members of the Court community by focusing on the long, colorful, and rich history and traditions of the United States Court of Appeals for the Federal Circuit and its predecessor courts, including both people and events.

THE SOCIETY IN 2023

FCHS Lecture Series and Bench & Bar Luncheon. In June 2023, Dr. Caoimhe Ring presented a lecture on Intellectual Property Law and Innovation for the Climate Crisis. The lecture was presented virtually. Dr. Ring was at that time a lecturer in intellectual property law at the University of Bristol. Her doctoral thesis examines the impact of intellectual property rights on the diffusion of climate-friendly technologies, drawing on 41 interviews with climate-friendly inventors and analyses of over 280 patent applications. Her work is focused on access to knowledge and how knowledge production practices shape our response to the climate crisis; and she has recently published a thoroughgoing and well-received article on this topic in the *Harvard Journal of Law and Technology*. In June 2023, the Federal Circuit Bar Association held its annual Bench & Bar Conference., at the Broadmoor Hotel in Colorado Springs, Colorado.

Major J. Trent "Pilgrim" Bradford addressed the luncheon gathering of the Historical Society during the Federal Circuit Bench and Bar Meeting on the topic of the Law of Cyberneutrality. Major Bradford is an Assistant Professor of Law at the United States Air Force Academy in Colorado Springs, Colorado, where he teaches law and directs the cyber programs of the Law, Technology and Warfare Research Cell. He received his law degree in 2011 from BYU, and then spent many years as a trial lawyer, handling criminal cases for the military all over the world, both on the prosecution and the defense side. Very accomplished, he rose to the level of Chief Circuit Trial Counsel. Major Bradford was deployed to Afghanistan and Iraq, handling detainee issues and rapid dynamic targeting. In 2022, he received his LLM in Space, Cyber and Telecommunications Law from the University of Nebraska-Lincoln. Major Bradford explained that neutrality law dates from a different era, more than 100 years ago. He then explored some of the many ways in which the established neutrality principles fail adequately to meet the challenges presented by modern cyber activity. He outlined ways in which current neutrality law fails to provide a viable or effective check on inappropriate cyber behavior. Given this slippage, he emphasized the need to review current legal principles in terms of allowable cyber behavior.

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In addition to *The Court at War,* he is the co-author, with David McKean, of *The Great Decision: Jefferson, Adams, Marshall, and the Battle for the Supreme Court* (PublicAffairs 2010), and his commentaries on the Supreme Court have appeared in The New York Times, The Washington Post, Slate, and other publications—both in print and online.

Professor Sloan began with the *Hirabayashi* and *Korematsu* decisions, authorizing the interment of American citizens of Japanese dissent. He described the make-up, personalities, and relationships between the principal actors in the Roosevelt Administration and the Court and the major decisions the Court rendered during the war years. He continued with a discussion of several cases, including the Nazi saboteurs-case. He highlighted several lessons from these tumultuous years: the danger of excessive deference to the government on claims of national security; and the judicial disaster, the catastrophe, that can result when Justices are unwilling to confront the President who appointed them, or that President's political supporters and backers.

The FCHS *JOURNAL*. The Society also continued to produce its *Journal*. The annual *Journal* is an important aspect of realizing the purposes and goals of the Society. Through its previous sixteen volumes, the *Journal* has provided a variety of material relating to the history of the Federal Circuit and its predecessors, the United States Court of Claims and the United States Court of Customs and Patent Appeals. Published articles include biographies of judges, articles on the histories of the Court's jurisdictional areas, and stories of the history of Madison Place and Lafayette Square on which the Court is located, as well as a variety of other subjects of general interest to the Society's members, the IP bar, and the public.

In 2021, Editorship of the *Journal* was assumed by Professor Christopher A. Cotropia, Dennis I. Belcher Professor of Law and Director of the Intellectual Property Institute at the University of Richmond, whose work has appeared in the *UCLA Law Review*, *William & Mary Law Review*, *Hastings Law Journal*, *Notre Dame Law Review*, *North Carolina Law Review*, *Yale Journal of Law and Technology*, and *Berkeley Technology Law Journal*, among other publications. Prior to commencing his teaching career in the field of intellectual property, Chris clerked for Judge Alvin A. Schall at the Court of Appeals for the Federal Circuit.

Chris has completed the *Journal's* transition from its founders' era—especially that of our late founder and long-time leader Herb Mintz—to what promises to be a bright future. Under Chris's leadership, Volume 16 included articles based on two of the lectures presented in late 2023: Professor Jonathan P. Kastellec, Professor of Politics at Princeton University on The Politics of Supreme Court Appointments; and Reverend Griffin Lotson, on The Gullah Geechee: History, Culture, and Heritage of a People. It Also included three articles dedicated to George E. Hutchinson, the first Clerk of Court of the United States Court of

Appeals for the Federal Circuit: Viktoriia Martynov on George Hutchinson—"A Walking History Book"—Memories and Reflections in His Own Words; former Chief Circuit Judge Paul R. Michel, on Encounters with Beloved George Hutchinson; and by former Executive Director of the Federal Circuit Bar Association., James E. Brookshire on Pillar of the Jutice Community—George E. Hutchinson.

This issue—Volume 17, 2023—of the *Journal* continues, and builds upon, that tradition. It contains and Oral History of Circuit Judge Pauline Newman; the text of a lecture by Dr. Caoimhe Ring entitled Intellectual Property Law and Innovation for the Climate Crisis; the text of Major L. Trent "Pilgrim" Bradford's lecture at the Historical Society Luncheon at the Federal Circuit Bar Association's Bench & Bar Conference in Colorado Springs, on The Law of Cyber Neutrality; and a lecture by Professor Cliff Sloan on The Court at War: FDR, His Justices, and the World They Made. It includes remarks by former Chief Circuit Judge Paul R. Michel at the Cosmos Club on Has the Federal Circuit Fulfilled its Promise? Finally, it includes Phil Long's presentation at the Historical Society luncheon at the 2025 Federal Circuit Bench & Bar Conference in Napa, California, on winemaking in the Livermore Valley.

THE "WHITE BOOK"

A major project of the Federal Circuit Historical Society has been planning for and work on the third of a three-volume history of the Court of Appeals for the Federal Circuit. The first volume, or "Red Book," covers the period from 1982 to 1992; the second, or "Blue Book," covers 1992 to 2002. Work continued on the "White Book," which will cover the period from 2003 to 2018, completing the three volumes recounting the first 35 years of the Court. The "White Book" will be the first of the three volumes to be published by the Society. Funding for the project remains in place and its publication is expected during 2026.

ORAL HISTORIES OF THE COURT

In one of its earliest projects, the Society recorded both audio and video interviews of judges as well as other individuals who were involved in the creation of the Federal Circuit. The oral history project, underwritten by a generous grant from the Fairleigh Dickinson Foundation, has continued, and to date there have been 15 interviews. In 2022, interviews for an oral history of Judge Linn were completed. Judge Pauline Newman's oral history was taken during 2023 and appears in this volume of the *Journal*.

FCHS MEMBERSHIP AND OUTREACH

The Federal Circuit Historical Society is supported by individual memberships and subscriptions to its *Journal* by libraries such as university law libraries, other sales of Society publications, as well as foundation grants and donations. After subscriptions lagged during the pandemic the Society reached out to longstanding law library subscribers to repair neglected relationships and refine the *Journal* subscription process.

In 2019, the Society purchased new software to modernize communications and support a substantial membership drive. While the Society's membership drive and other outreach programs were largely put on hold during the pandemic, the software and volunteers are in place and available to continue this important membership campaign. In 2022, the Society launched additional efforts to attract new members, specifically including new members from among former CAFC clerks, and those efforts are continuing.

MEETINGS OF THE BOARD OF TRUSTEES

The Society's 2023 Board of Trustees Meeting was conducted in January 2024.

THE OFFICERS AND BOARD OF TRUSTEES OF THE SOCIETY FOR 2023–2024

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HISTORY OF THE SOCIETY'S LECTURE SERIES AND BENCH & BAR EVENTS

The Society lecture series, which began in 2009, is held each Spring and Fall in the Dolley Madison house both in person and, since the onset of the pandemic, online. These events are free and open to the public. Talks have also been given at Society events during the Federal Circuit Bar Association Bench & Bar meetings, which are typically held outside of Washington, D.C. Many, although not all, of these lectures and Bench & Bar talks have formed the basis for articles in the *Journal*, including three articles (Ring, Bradford, and Sloan, published in this issue and described briefly under section captioned "FCHS Lecture Series and Bench & Bar Luncheon.").

The programs from the first lecture in 2009 through the calendar year 2021 talks are as follows.

May 2009—The inaugural event featured local historian, Anthony S. Pitch, speaking on the assassination of Abraham Lincoln, based on his book "They Have Killed Papa Dead."

October 2009—Professor of History at Georgetown University, Joseph A. McCartin, spoke on the Air Traffic Controllers strike of 1981, based on his book "Collision Course: Ronald Reagan, the Air Traffic Controllers, and the Strike that Changed America." The strike caused President Ronald Reagan to discharge some 4500 controllers, nearly all of whom challenged their discharges before the Merit Systems Protection Board. The subsequently appealed cases to the Federal Circuit turned out to be the most publicized group of cases in the early days of the Court.

April 2010—Beth Taylor, a historian and James Madison scholar, spoke about the fascinating history of Paul Jennings, President Madison's enslaved manservant

from the beginning of Madison's presidency through his death in 1836. Jennings came to Washington with Dolley Madison and lived in her home on Madison Place, ultimately becoming an active member of the free black community in Washington, DC.

October 2010—Cliff Sloan, an attorney in Washington, DC, spoke on the famous *Marbury v. Madison* Supreme Court case, based on his book "The Great Decision: Jefferson, Adams, Marshall and the Battle for the Supreme Court."

June 2011—H. Jackson Knight lectured on a little-known subject of history, based on his book "Confederate Invention: The Story of the Confederate States Patent Office and Its Inventors."

October 2011—Elisabeth Crum of the Sewall-Belmont House & Museum lectured on "The National Women's Party—Political Rhetoric and Visual Propaganda in the Battle for the Vote." This lecture was given in the Benjamin Ogle Tayloe House adjacent to the National Courts Building, which was the former headquarters for the National Women's Party in the years 1916-1917.

June 2012—Anthony S. Pitch returned to give the spring lecture on another of his areas of research and study: the War of 1812. His book "The Burning of Washington: The British Invasion of 1814" was the basis for the talk. Although most of the Society lectures take place in the Dolley Madison House, Mr. Pitch gave this heavily attended lecture in the ceremonial courtroom of the Court of Appeals for the Federal Circuit.

October 2012—James D. Ridgway, an expert in the area of veterans law, spoke on "Caring for Those Who Have Borne the Battle," a history of veterans benefits since the Revolutionary War.

June 2013—David O. Stewart, a trial and appellate attorney and author, spoke on Aaron Burr, our third Vice-President, and his fateful friendship with the Madisons.

November 2013—Donald R. Dunner, Washington attorney and Dean of the Federal Circuit Bar, lectured on the exclusive patent jurisdiction of the Federal Circuit, its past, present, and future.

June 2014—Edith P. Mayo, former Curator of the First Ladies Exhibition, Smithsonian Institution, and author/editor, spoke on Dolley Madison with the title "Creating a State for the Presidency."

November 2014—F. Scott Kieff, at the time a Commissioner of the United States International Trade Commission and former President of the Society, lectured on the diverse approaches to patent adjudication across agencies, commissions, and courts.

May 2015—Michael J. Remington, former Chief Counsel of the United States House of Representatives' Judiciary Subcommittee on Intellectual Property and Judicial Administration, spoke on "An Inside Story of the Creation of the Federal Circuit from a Legislative Perspective."

November 2015—Professor Christopher Beauchamp of the Brooklyn Law School, who teaches in the areas of intellectual property and legal history, lectured on "The First Patent Litigation Explosion," which occurred in the middle of the nineteenth century, and its leading causes.

May 2016—A panel composed of retired Judge Arthur Gajarsa of the Federal Circuit, Professor Ezra Ross of American University Washington College of Law, and moderator Patrick Coyne, Vice President of the Society, addressed the subject of "Conqueror or Trustee: The Native American Experience in the Federal Circuit."

December 2016—Based on his book "LASER: The Inventor, The Nobel Laureate, and The Thirty-Year Patent War," author Nick Taylor spoke on the invention of the laser device by Gordon Gould and his long battle for his patents in the Patent and Trademark Office and the courts.

May 2017—Dr. Tom Crouch, Senior Curator, Aeronautics Department at the National Air and Space Museum, spoke on "The Bishop's Boys," the title of his book that refers to Wilbur and Orville Wright. The Wright brothers obtained a pioneer patent in the age of aeronautics and won critical court judgments against their arch competitor Glenn H. Curtiss. Dr. Crouch discussed this early episode in aviation history, the patent litigation on one of the preeminent inventions of American history, and the global consequences.

June 2017—Raymond C. Givens, counsel for the Coeur d'Alene Tribe, spoke at the Coeur d'Alene Resort in Idaho on the history of the Tribe and its ownership of the land, including the resort and adjacent area, and the litigation that ensued in the federal courts and eventually ended in the Supreme Court.

December 2017—Laura Kamoie, bestselling historical author and former Professor at the United States Naval Academy who wrote *Irons in the Fire*, a history of the Tayloe Family of Virginia, lectured on "Portraying the Past in Fiction and Non-Fiction" and the two approaches to writing about history. She related her experiences and observations about researching and understanding the past and presenting history in these different forms of creative expression.

June 2018—David O. Stewart, trial and appellate attorney and historian, returned to speak on his recent book "Madison's Gift." He discussed the contribution James Madison made as a Founding Father of the new nation and his relationship with some of the nation's most important founding figures, including his partnership with his wife, Dolley, who was an invaluable asset.

November 2018—Dr. W. Bernard Carlson, Professor of Humanities and History at the University of Virginia, narrated a slide show on the invention of wireless radio and the race between rivals Marconi and Tesla to achieve an operational, commercial wireless system. As part of his talk, Dr. Carlson explained how modern technologies shaped business strategy and the impact of other economic and social factors, especially on patent litigation.

Spring 2019—Frederic R. Kellogg, author of *Oliver Wendell Holmes Jr. and Legal Logic* and two other books on Justice Holmes, discussed the relevance of Justice Holmes's jurisprudence to the role of courts in resolving emergent legal issues involving new or unanticipated facts by using input from sources outside the law.

June 2019—Retired United States Air Force Lt. Col. J. Brian "Bear" Lihani discussed the history of NORAD and Cheyenne Mountain at the 2019 Federal Circuit Bench & Bar conference at The Broadmoor Resort in Colorado Springs.

October 2019—Judge Evan J. Wallach, a decorated Vietnam veteran, gave a thought-provoking lecture on the law of war in the twenty-first century, including when war is justified and the broad realm of cyber warfare.

2020 Spring, Bench & Bar, and Fall events—As a consequence of the Covid Pandemic, the Society held no lecture or Bench & Bar events in the Spring of 2020, at the 2020 Bench & Bar, or in the Fall of 2020.

May 2021—Professor Lenese Herbert of Howard University Law School presented a thought-provoking discussion on "Policing Protests in Times of Social Conflict" about how violent policing—as opposed to protecting—peaceful social injustice protests should be regarded as inconsistent with the Constitution, and how police choices in handling peaceful protests can have far-reaching effects on maintaining public order.

June 2021—at the Society's virtual meeting during the Federal Circuit Bar Association's annual Bench & Bar, Circuit Executive Peter R. Marksteiner gave an unforgettable overview of "The Impact of the Pandemic on the Operations of the Court." Mr. Marksteiner told us how the Court stayed up and running during 2020 and 2021 despite the challenges of the pandemic and various security concerns related to the Court's location adjacent to Lafayette Square Park.

December 2021—Dr. Julie Des Jardins spoke on the topic of "Beyond the Madame Curie Complex: A Retrospective on Women and Gender in STEM." Dr. Des Jardins, a professor of the history of American women and gender with a doctorate from Brown University who has taught at Harvard and the City University of New York, is now a consultant on diversity, equity, and inclusion issues in Silicon Valley.

May 2022—Professor Jonathan Kastellec of Princeton University presented a discussion titled "Making the Supreme Court: The Politics of Appointments, 1930-2020." Dr. Kastellec described and explained how broader changes in America politics have brought about a change in the Supreme Court nomination and confirmation process that are now highly contested and politicized affairs with presidents, senators, interest groups, the media, and the public all highly invested in both the process and the outcome.

June 2022—Rev. Griffin Lotson, a seventh-generation Gullah Geechee who has devoted much of his life to the protection and preservation of the heritage and culture of the Gullah Geechee people of the sea islands of the Southeast, informed attendees at the FCBA Bench & Bar in Sea Island, GA, about the traditional arts and music, cuisine, and distinctive language of his people who now represent one of the most admired and respected African American cultures in the United States.

December 2022–Dr. Naomi Oreskes, who is Henry Charles Lea Professor of the History of Science and of Earth and Planetary Sciences at Harvard University, spoke on "Why We Should Believe Science." In our society that challenges the validity and trustworthiness of scientific research and conclusions, Dr. Oreskes explained why the methods used to establish scientific knowledge and conclusions itself make it trustworthy and credible.

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