## Business and Education Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker Details</th>
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<tbody>
<tr>
<td>11:00 a.m.</td>
<td><strong>Roll Call of the States, Conference Welcome and Business Meeting</strong></td>
<td>Laura Roy, President, National Conference of Appellate Court Clerks; Clerk, Missouri Court of Appeals – Eastern District</td>
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<tr>
<td>12:30 p.m.</td>
<td>Break</td>
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<tr>
<td>12:45 p.m.</td>
<td><strong>Courts of the Future – A futuristic look at the judicial system which includes computers deciding cases, virtual trials, and greater use of artificial intelligence</strong></td>
<td>Opperman Speaker, Gary Marchant, Regents’ Professor and Lincoln Professor of Emerging Technologies, Law &amp; Ethics, and Faculty Director of the Center for Law, Science &amp; Innovation, at the Sandra Day O'Connor College of Law, Arizona State University</td>
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<tr>
<td>2:15 p.m.</td>
<td>Break</td>
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<tr>
<td>2:20 p.m.</td>
<td><strong>Palm Beach County Robots - Use of Artificial Intelligence Document Review and ethical ramifications of its use.</strong></td>
<td>Cynthia M. Guerra, Clerk and Comptroller, Palm Beach County, FL and Tom, Hall, J.D., TLH Consulting Group</td>
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<tr>
<td>3:20 p.m.</td>
<td>Break</td>
<td></td>
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<tr>
<td>3:30 p.m.</td>
<td><strong>Labor &amp; Employment Law Update - Pandemics, Marijuana, and Trends … Oh, My!</strong></td>
<td>Chris Weller, JD.</td>
</tr>
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The 47\textsuperscript{th} Annual Meeting of the National Conference of Appellate Court Clerks
Virtual Education Sessions
August 2, 2020

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<thead>
<tr>
<th></th>
<th>Title</th>
<th>Date</th>
<th>Time</th>
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<tbody>
<tr>
<td>1</td>
<td>&quot;Courts of the Future&quot;</td>
<td>Sunday, August 2, 2020</td>
<td>12:45 p.m. – 2:15 p.m.</td>
</tr>
<tr>
<td>2</td>
<td>&quot;Palm Beach County Robots&quot;</td>
<td>Sunday, August 2, 2020</td>
<td>2:20 p.m. – 3:20 p.m.</td>
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<tr>
<td>3</td>
<td>&quot;Labor &amp; Employment Law Update&quot;</td>
<td>Sunday, August 2, 2020</td>
<td>3:30 p.m. – 4:30 p.m.</td>
</tr>
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Courts of the Future

47th Annual Meeting of the National Conference of Appellate Court Clerks

August 2, 2020

Gary E. Marchant, J.D., Ph.D.
Gary.marchant@asu.edu
Gary Marchant serves as the Regents’ Professor and Lincoln Professor of Emerging Technologies, Law & Ethics, and Faculty Director of the Center for Law, Science & Innovation, at the Sandra Day O’Connor College of Law, Arizona State University (ASU). He is also a Distinguished Sustainability Scientist in the Global Institute of Sustainability and Professor in the School of Life Sciences at ASU.

He teaches, researches and speaks about the governance of a variety of emerging technologies, including biotechnology, genomics, neuroscience, nanotechnology, artificial intelligence and blockchain. Prior to joining the College faculty in 1999, Professor Marchant was a partner at the Washington, D.C., office of Kirkland & Ellis, where his practice focused on environmental and administrative law. He received his J.D. from Harvard Law School, where he was awarded the Fay Diploma (awarded to top graduating student at Harvard Law School). He also has a Ph.D. in genetics from the University of British Columbia and a Masters of Public Policy from the Kennedy School of Government.

Professor Marchant frequently lectures about the intersection of law and science at national and international conferences, including speaking at over 75 judicial conferences. He has authored more than 200 articles and book chapters on various issues relating to emerging technologies. Among other activities, he has served on six National Academy of Sciences committees, has been the principal investigator on several major grants, and has organized over 50 academic conferences and workshops on law and science issues, including the annual Governance of Emerging Technologies and Sciences (GETS) conference held every May in Phoenix. He is currently the P.I. on a grant looking at the use of “soft law” to govern artificial intelligence. He is an elected lifetime member of the American Law Institute and Fellow of the Association for the Advancement of Science.
Courts of the Future

47th Annual Meeting of the National Conference of Appellate Court Clerks
August 2, 2020

Gary E. Marchant, J.D., Ph.D.
Gary.marchant@asu.edu
“[P]oliticians – and judges for that matter – should be wary of the assumption that the future will be little more than an extension of things as they are.”

- from Jeffrey Rosen, Roberts v. The Future, NY Times, Aug. 28, 2005
Technology Revolutions of the 20th Century
NUMBER OF YEARS IT TOOK FOR EACH PRODUCT TO GAIN 50 MILLION USERS:

- Airlines: 68 yrs
- Automobiles: 62 yrs
- Telephone: 50 yrs
- Electricity: 46 yrs
- Credit Card: 28 yrs
- Television: 22 yrs
- ATM: 18 yrs
- Computer: 14 yrs
- Cell Phone: 12 yrs
- Internet: 7 yrs
- iPods: 4 yrs
- YouTube: 4 yrs
- Facebook: 3 yrs
- Twitter: 2 yrs
- Pokémon Go: 19 days
To buy all these products would cost $3054.82 in 1991 dollars.
Exponential Change

“An analysis of the history of technology shows that technological change is exponential, contrary to the common-sense ‘intuitive linear’ view. So we won’t experience 100 years of progress in the 21st century – it will be more like 20,000 years of progress (at today’s rate).” – Ray Kurzweil
“The Court must proceed with care when considering the whole concept of privacy expectations in communications made on electronic equipment owned by a government employer. The judiciary risks error by elaborating too fully on the Fourth Amendment implications of emerging technology before its role in society has become clear.... Prudence counsels caution before the facts in the instant case are used to establish far-reaching premises that define the existence, and extent, of privacy expectations enjoyed by employees when using employer-provided communication devices.... A broad holding concerning employees’ privacy expectations vis-à-vis employer-provided technological equipment might have implications for future cases that cannot be predicted. It is preferable to dispose of this case on narrower grounds.”
The Future of Courts: Outline

I. Types of Cases, Claims & Defenses
II. Types of Evidence
III. Changes to the Courtroom
I. Types of Cases, Claims & Defenses
Genetic Predisposition To Violence

![Bar chart showing the relationship between MAOA levels and maltreatment in the context of violence predisposition.](chart.png)
Bradley Waldroup Case (Tennessee 2010)

- Waldroup murdered his estranged wife’s friend and tried to also murder his wife.
- Charged with felony murder, a capital offense.
- Tested positive for MAOA high risk gene variant; suffered from early childhood abuse.
- Jury convicted him of voluntary manslaughter rather than felony murder.
Drones

First Man Arrested With Drone Evidence Vows to Fight Case
Court must decide if police are allowed to use drones to help make arrests.

Managers are using drones to monitor their employees
Anita Balakrishnan | @MsAbalakrishnan
Thursday, 27 Aug 2015 11:44 AM ET

Emergent Tech  Artificial Intelligence
RoboCop-ter: Boffins build drone to pinpoint brutal thugs in crowds
‘Violent behavior’ identified and highlighted by surveillance system destined for a police force near you
By Katiyana Quach 6 Jun 2018 at 07:02

Airborne menace that can hit 60mph
- The drone that injured Oscar was a Class 250 quadcopter (pictured).
- 250’ refers to the length in millimetres of each of the machine’s four rotors.
- They can fly up to two-thirds of a mile from the transmitter.
- They are built from lightweight materials such as carbon fibre or fibreglass, they reach top speeds of 60mph.
- A basic drone, receiver, and transmitter setup is around £300, double that if using top quality components.
- Powered by a rechargeable lithium-polymer battery with four rotors and four motors; they can fly for around six minutes at a time.
- Can be bought ready-assembled or as individual self-build components.
- Knowledge from Bawor-in-Flames became the first person convicted in the UK for ‘dangerously flying a drone’. He was fined £500 with £3,500 costs.
- More than 100,000 drones are estimated to have been sold in the UK.
- Last year TV repair shop owner Robert...
REPORT: Parents of teen with speeding ticket fighting citation with personal GPS data

It seems as though there may just be a positive side to those unwelcome GPS-based vehicle tracking devices... especially if you are a teenager. Shaun Malone, a 17-year-old California resident, was cited by radar-yielding authorities for driving 62 mph in a 45 mph zone in 2007. Faced with a $154 fine (and some inflating insurance premiums), Shaun's parents fought back arguing their son's vehicle was equipped with a satellite-based tracking device that monitored Shaun's speed – and it showed he was doing 45 mph when he was stopped.

In re Shaun Malone, Sonoma County Commission (2007)
Driverless Cars

When Should Your Driverless Car From Google Be Allowed To Kill You?
Artificial Intelligence/Machine Learning
AI: Machine Learning

Human Computer Programming

- Machine mechanically implements human-made code
- Bad outcomes are attributable to bad code by human programmer
- Human programmer can explain why machine did what it did

Machine Learning

- Humans provide data and specify overall goal for machine
- Machine self-learns and adapts its approach to maximize specified goal
- Limited explanation for why machine did what it did
A Robot That Bought Drugs Online Is Now Free From Police Custody

Posted Apr 20, 2015 by John Biggs (@johnbiggs)

If that headline doesn't make much sense, welcome to the 21st century when a program designed to automatically buy random items from illegal marketplaces can be arrested by Swiss police. As you'll recall, Swiss police seized a program called Darknet Shopper, a bot that visited darknet markets and bought random items with bitcoin. Most of the items were mundane – counterfeit goods and the like – but the robot also ordered some ecstasy.
People kicking these food delivery robots is an early insight into how cruel humans could be to robots

Isobel Asher Hamilton, provided by BUSINESS INSIDER

Published 1:00 am, Saturday, June 9, 2018
Give robots 'personhood' status, EU committee argues

Proposed rules for robots and AI in Europe include a push for a general basic income for humans, and 'human rights' for robots

Full Interview With SOPHIA
The Robot Citizen of Saudi Arabia

https://www.youtube.com/watch?v=jUcori12KU

The Evolution of Human-Robot Relationships
LOVE + SEX WITH ROBOTS

DAVID LEVY

"[A] controversial and troublingly amusing book." — USA Today
Will The Next Picasso Be a Robot?

AI-generated artworks are set to be the next art movement of the century. But, is creativity an expression exclusively human?
While his wife, Sue, watches television in the living room, Mr. Hoogestraat chats online with what appears on the screen to be a tall, slim redhead. He's never met the woman outside of the computer world of Second Life .... He's never so much as spoken to her on the telephone. But their relationship has taken on curiously real dimensions. They own two dogs, pay a mortgage together and spend hours shopping at the mall and taking long motorcycle rides.

The woman he's legally wed to is not amused. "It's really devastating," says Sue Hoogestraat, "You try to talk to someone or bring them a drink, and they'll be having sex with a cartoon."
Voyeur Dorm (2001)

- Tampa Bay zoning ordinance prohibits adult entertainment businesses in residential areas.
- Voyeur Dorm is a house in an upscale Tampa residential area that contains several college-age female residents and dozens of live Webcams that transmit unvarnished images 24 hours per day to thousands of subscribers.
- 11th Circuit held that the company did not offer adult entertainment in Tampa, but rather are offered in cyberspace, and is therefore not subject to the Tampa ordinance.
World’s first ‘floating country’ starts pre-sales before launching in Pacific in 2022

The Seasteading Institute aims to launch a floating ‘nation’ in 2022 in the Pacific (Seasteading Institute).

It sounds like the stuff of science fiction: a floating nation-state, independent from any land-based country and not bound by their laws.

But the Seasteading Institute aims to launch a floating ‘nation’ in 2022 in the Pacific, with up to 300 homes, as well as hotels and offices.
Types of Evidence
New Types of Evidence

- Digital Discovery
  - Computers
  - Smart phones and devices
- Social Media
- Genomics
- Microbes
- GPS/Location Data
- Drones

- Virtual Worlds
- Internet of Things
- Data Analytics
- Wearables
- Brain Scans
- Biometrics
- Artificial Intelligence
- Virtual Reality
Duty of Technological Competence

- Attorney failed to produce an accurate spreadsheet of computer database entries

- Attorney’s defense: “I have to confess to this Court, I am not computer literate. I have not found presence in the cybernetic revolution. I need a secretary to help me turn on the computer. This was out of my bailiwick.”

- Court: “Professed technological incompetence is not an excuse ….”

In small business dispute, one party and its lawyers received threatening anonymous letters. They suspected owner of other company, but he denied it. They deposed owner in their lawyer’s office; clerk collected his used drinking glass. DNA obtained from drinking glass matched DNA from saliva on envelopes.
INVESTIGATORS EXPLAIN HOW THEY USED DNA WEBSITES TO FIND THE GOLDEN STATE KILLER SUSPECT
Identification of individuals by trait prediction using whole-genome sequencing data

Christoph Lippert\textsuperscript{a,1}, Riccardo Sabatini\textsuperscript{a}, M. Cyrus Maher\textsuperscript{a}, Eun Yong Kang\textsuperscript{a}, Seunghak Lee\textsuperscript{a}, Okan Arikan\textsuperscript{a}, Alena Harley\textsuperscript{a}, Axel Bernal\textsuperscript{a}, Peter Garst\textsuperscript{a}, Victor Lavrenko\textsuperscript{a}, Ken Yocum\textsuperscript{a}, Theodore Wong\textsuperscript{a}, Mingfu Zhu\textsuperscript{a}, Wen-Yun Yang\textsuperscript{a}, Chris Chang\textsuperscript{a}, Tim Lu\textsuperscript{b}, Charlie W. H. Lee\textsuperscript{b}, Barry Hicks\textsuperscript{a}, Smriti Ramakrishnan\textsuperscript{a}, Haibao Tang\textsuperscript{a}, Chao Xie\textsuperscript{c}, Jason Piper\textsuperscript{c}, Suzanne Brewerton\textsuperscript{c}, Yaron Turpaz\textsuperscript{b,c}, Amalio Telenti\textsuperscript{b}, Rhonda K. Roby\textsuperscript{b,d,2}, Franz J. Och\textsuperscript{a}, and J. Craig Venter\textsuperscript{b,d,1}

\textsuperscript{a}Human Longevity, Inc., Mountain View, CA 94303; \textsuperscript{b}Human Longevity, Inc., San Diego, CA 92121; \textsuperscript{c}Human Longevity Singapore, Pte. Ltd., Singapore 138542; and \textsuperscript{d}J. Craig Venter Institute, La Jolla, CA 92037

\textbf{Fig. 2.} Examples of real (Left) and predicted (Right) faces.
Genetic Data in Toxic Tort Litigation

Gary E. Marchant
Regents' Professor of Law
Faculty Director and Faculty Fellow, Center for Law, Science & Innovation
Lincoln Professor of Emerging Technologies, Law and Ethics
Senior Sustainability Scientist, Global Institute of Sustainability
Arizona State University
Tempe, Arizona

Genetic Data in Toxic Tort Litigation

There are major data gaps and uncertainties about the health risks of most potentially toxic substances. When the question focuses on whether a particular toxic substance caused injury in a specific individual, the data gaps and uncertainties are even greater. Most disease conditions have multiple potential etiologies, and there is usually no direct evidence of which possible cause produced the disease in a specific individual. Moreover, each person is unique in his or her susceptibility to toxic agents, further complicating the inquiry into what caused illness in that individual. Yet, it is precisely into this black hole of ignorance and uncertainty that judges and juries must venture to resolve whether a particular exposure caused an individual plaintiff’s illness. Not surprisingly, the outcome in such toxic tort cases is often uncertain, contentious and unjust.
Anesthetist infected at least 275 people (4 deaths) by skimming morphine by injecting himself before patient; sentenced to 1,933 yrs in jail after DNA proved source
A Forensic Approach to a Sidewalk Nuisance

By JIM YARDLEY  FEB. 22, 2004

NAPLES, Italy — Problems? Yes, conceded Tommaso Sodano, the vice mayor here, Naples has problems. Unpaid debts have reportedly topped $2 billion. Many streets are pocked with potholes. The police department is understaffed, organized crime operates like a shadow state, and illegal dumps are scattered around what is still a gritty beautiful port city.

And then there is what dogs leave behind on the sidewalks.

Tracing Unscooped Dog Waste Back to the Culprit

By LISA M. TANSEY

The New York Times

The city's police department sent out a memo last week ordering all dog owners to keep their pets clean. The city's sanitation workers are required to pick up dog waste. But some residents say they see it everywhere.

The city's police department sent out a memo last week ordering all dog owners to keep their pets clean. The city's sanitation workers are required to pick up dog waste. But some residents say they see it everywhere.
Epigenetics

Effects of Environmental Toxicants Reach Down Through Generations

ScienceDaily (Mar. 2, 2012) — A Washington State University researcher has demonstrated that a variety of environmental toxicants can have negative effects on not just an exposed animal but the next three generations of its offspring.

The animal's DNA sequence remains unchanged, but the compounds change the way genes turn on and off -- the epigenetic effect studied at length by WSU molecular biologist Michael Skinner and expanded on in the current issue of the online journal PLoS ONE.

While Skinner's earlier research has shown similar effects from a pesticide and fungicide, this is the first to show a greater variety of toxicants -- including jet fuel, diesel, plastics and the pesticides DEET and permethrin -- promoting epigenetic disease across generations.

"We didn't expect them all to have transgenerational..."
Brain Scanning

- Potential legal applications include:
  - Lie detection
  - Terrorist identification
  - Latent racial animus
  - Competency
  - Propensity for violence
  - Recidivism risk
  - Pain
  - Drug and alcohol use
  - Awareness in vegetative state
Brain Scanning Cases in US Courts

Figure 1: Final Decisions by Year

Source: Gaudet & Marchant, Drake L. J. (2016)
BRAIN SCANS PREDICT WHICH CRIMINALS ARE MOST LIKELY TO REOFFEND

BRAIN SCANS OF convicted felons can predict which ones are most likely to get arrested after they get out of prison, scientists have found in a study of 96 male offenders.
Forget Police Sketches: Researchers Perfectly Reconstruct Faces by Reading Brainwaves

By Shelly Fan - Jun 14, 2017  12

Picture this: you're sitting in a police interrogation room, struggling to describe the face of a criminal to a sketch artist. You pause, wrinkling your brow, trying to remember the distance between his eyes and the shape of his nose.

Suddenly, the detective offers you an easier way: would you like to have your brain scanned instead, so that machines can automatically reconstruct the face in your mind's eye from reading your brain waves?
GPS Evidence

- Police tracking of suspect location
  - GPS device
  - Cell phone
- Digital stalkers
- Divorce attorney tracking of spouses
- Monitoring of employees
- Sex offenders
- Bank robber
- Speed limit enforcement/defense
- GPS cameras ("geotagging")
Last Recorded Location:

- Tempe, AZ 85281
  10:48 AM Jun 25, 2013
  Accuracy: 21 meters

Location History:

- Scottsdale, AZ 85259
  01:35 AM - 07:05 AM
  Jun 25, 2013
  Accuracy: 18 meters

- Tempe, AZ 85281
  09:04 PM Jun 24, 2013
  Accuracy: 3 meters

- Washington, VA 20001
  02:27 PM Jun 24, 2013
  Accuracy: 58 meters

- Washington, DC 20036
  Accuracy: 29 meters

Clear All Locations
New surveillance cameras will use computer eyes to find 'pre-crimes' by detecting suspicious behaviour and calling for guards

- Computerised detectors look for 'abnormal' behaviour
- When suspicious individuals are seen, guards called
- BRS machines have been trialled in numerous locations
- 288 cameras to be installed on subway in San Francisco

By Rob Waugh

Published: 09:12 EDT, 5 June 2012 | Updated: 09:12 EDT, 5 June 2012

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View comments

A new generation of computerised 'Big Brother' cameras are able to spot if you are a terrorist or a criminal - before you even commit a crime.

The devices are installed in places like train stations or public buildings where they scan passers by to see if they are acting suspiciously.

Using a range of in-built parameters of what is 'normal' the cameras then send a text message to a human guard to issue an alert - or call them.
New in 2017: Nano-drones for grunts

By Matthew L. Schehl, December 26, 2016 (photo credit: US Marine Corps Times)

Some Marine Corps squad leaders will be getting hand-held nano-drones in 2017, small devices that will offer once-unfathomable level of visibility over the battlefield.
LAW BLOG

Court: Judges Can Consider Predictive Algorithms in Sentencing

By JOE PALAZZOLO
Jul 13, 2016 5:04 pm ET

The Wisconsin Supreme Court, located in the State Capitol, is set to rule on whether algorithms used to predict criminality can be used in sentencing. PHOTO: GETTY IMAGES/SCIENCE SOURCE

Sentencing judges may take into account algorithms that score offenders based on their risk of committing future crimes, Wisconsin’s high court ruled on Wednesday.
A first: biometrics used to sentence criminal

A judge ruled that biometric facial recognition could be submitted as evidence marking the first time such evidence has been used in a criminal trial; this move surprised many legal and scientific experts as facial recognition technology does not follow basic legal standards required for evidence; the decision may or not become a legal precedent as it was not made by a California appellate or supreme court.

In early January, convicted murder Charles Heard received twenty-five years to life in a California prison for murder.

The case was unique because it was the first time that biometric facial recognition technology had been permitted to be used as evidence in the court room.
Biased algorithm leads to arrest of an innocent person for a crime he did not commit

Wrongfully Accused by an Algorithm

In what may be the first known case of its kind, a faulty facial recognition match led to a Michigan man's arrest for a crime he did not commit.
156-year old insurer John Hancock now requires customers to use health wearables

John Hancock, a life insurance company that was founded during the Civil War, announced yesterday that it will require all policyholders to record fitness and health data using wearable devices.
These devices are especially helpful in motor vehicle, bicycle, and pedestrian crash cases. Whether on the user's wrist, bike, or stroller, you can download or calculate variables such as speed, distance, angles, and degree of impact. Without witnesses or corroborating evidence, these devices can show your client's biking, jogging, or walking speed, as well as the precise point of impact and the momentum of the crash.
Police Use Fitbit Data to Charge 90-Year-Old Man in Stepdaughter's Killing

By Christine Hauser

Oct. 3, 2018

Anthony Aiello, 90, has been charged with murder in the death of his stepdaughter in San Jose, Calif., the police said.

The last time Anthony Aiello spoke to his stepdaughter, he took homemade pizza and biscotti to her house in San Jose, Calif., for a brief visit. Mr. Aiello, 90, told investigators that she then walked him to the door and handed him two roses in gratitude.
Wearable Devices as Admissible Evidence: Technology is Killing Our Opportunity to Lie

Nicole Chauniye
*Catholic University of America, Columbus School of Law*
Alexa, Tell Me About the Homicide: Judge Orders Amazon to Turn Over Echo Data

Following a New Hampshire ruling, attorneys say Internet of Things (IoT) enabled evidence 'presents hard decisions for judges because analog rules do not necessarily make sense in a digital world.'

By Ed Silverstein | Originally published on Legaltech News (legaltechnews) | November 26, 2018

Criminal lawyers are carefully watching events unfold after Amazon was ordered by a New Hampshire judge to provide data from an Echo smart device.

The order comes as authorities continue to investigate the murder of two women in Farmington, New Hampshire, in a house where an Amazon Echo may have recorded info related to the crime. Timothy Verrill has been charged in the case.
Cops use pacemaker data to charge homeowner with arson, insurance fraud

Police called pacemaker data an 'excellent investigative tool' that provided 'key pieces of evidence' to charge a man with arson and insurance fraud.

If you are dependent upon an embedded medical device, should the device that helps keep you alive also be allowed to incriminate you in a crime? After all, the Fifth Amendment of the U.S. Constitution protects a person from being forced to
New “Smart Toilet” Can Tell if You’re Pregnant, Drunk, Depressed or on Drugs

citizentruth.org/new-smart-toilet-can-tell-if-youre-pregnant-drunk-depressed-or-on-drugs

Nike Omedo
3D Printing

A New Weapon in the Trial Lawyer’s Arsenal

By Quentin F. Uralhart, Jr. and John E. Swanson

Trial exhibits made by 3D-scanning technology have established a new standard for accurately documenting and displaying evidence.

3D Printed Beer Bottle is Instrumental Evidence in UK Murder Conviction

April 20, 2015 • by Bridget O’Neal • 3D Design • 3D Printing

Additive Manufacturing General Personnel Certificate Program (Online)
Learn the core fundamental concepts of additive manufacturing from industry leaders
August 4 - August 26 - 2 online modules/week
Digital Fabrication

DIGITAL MANIPULATION AND PHOTOGRAPHIC EVIDENCE: DEFRAUDING THE COURTS ONE THOUSAND WORDS AT A TIME

Zachariah B. Parry
Deep Fakes

The New York Times

Here Come the Fake Videos, Too

Artificial intelligence video tools make it relatively easy to put one person’s face on another person’s body with few traces of manipulation. I tried it on myself. What could go wrong?

By Kevin Roose (https://www.nytimes.com/by/kevin-roose) March 4, 2018

Forged Authenticity
Governing Deepfake Risks
Don't Roll That Tape: Deepfakes Creating Litigation Nightmares

Whether it's fighting against one person's face being realistically pasted on another's body in a porn video, or against the mass collection for facial recognition database used by law enforcement, lawyers have thoughts about causes of action that could come into play.

By Angela Morris | February 10, 2020

Photo: Andrey_Popov/Shutterstock.com
Changes to the Courtroom
Technology in Courts
Minnesota courts cyberattack underscores growing threat


A recent cyberattack on the Minnesota Judicial Branch’s website underscored a growing threat that state officials warn will become more difficult to combat without additional resources.

Headline-grabbing data breaches have typically focused on instances where hackers steal millions of consumers’ financial information from retailers like Target and Home Depot. But experts say that state government systems also are vulnerable targets that hold sensitive information, including bank account information, Social Security numbers and addresses.

Gov. Mark Dayton earlier this year sought nearly $46 million to upgrade state government computer systems, to better ward off any potential cybersecurity attacks or data breaches. Some of the funding would have also gone toward improving the state’s response to a potential data breach.

The Department of Corrections and Department of Education would have received about $10 million to beef up their systems’ security.

Amid deep disagreements over how to spend the state’s projected budget surplus, state legislators failed to provide the funding Dayton requested, leaving the state’s computer systems without additional defenses for at least another year.

“Every day, hackers try to find and exploit gaps in Minnesota’s networks, hoping to steal sensitive information or bring websites down,” said MN.IT Services, the agency that administers Minnesota’s network. “The cybersecurity request this past legislative session reflects the fact that all organizations — both in government and the private sector — operate in an increasingly hostile digital world.”

MN.IT Services expects to press for additional resources, saying it is trying to keep up with the deluge of threats it faces daily.

“We must take these threats seriously and invest appropriately to protect Minnesotans’
Cyber Attack Attempts on Judiciary Top 24 Million, Congress Told

Feb. 24, 2020, 5:02 PM

- Judiciary has experienced a sharp increase in cyber incursions
- Some were by ‘nation states’ but none was successful, officials say

Cyber attack attempts targeting the federal judiciary have risen sharply in recent years to more than 24 million in 2019, and some incidents have been tied to other nations, judiciary officials said in congressional testimony.

Cyber incursions are “an increasing problem,” but there’s no indication that any...
Online Dispute Resolution

Any issue, resolved.

Businesses and individuals around the world can now resolve their issues quickly and effectively with Modria, the Fairness Engine for the Internet. And so can you.

What is the CRT?

Part of the justice system

1st online tribunal in Canada

Bringing the justice system to the public

Online Courts and the Future of Justice

Richard Susskind
YouTube Court Streaming Leads To Questions About Privacy

By LATOYA DENNIS • JUL 10, 2020

Zoom hearings broadcast on YouTube have become commonplace throughout the Wisconsin Justice System due to the coronavirus pandemic.

SCREENSHOT / MILWAUKEE COUNTY
Mistrial Motion Says Jurors Worked Out, Checked Stove, During Virtual Voir Dire in Asbestos Case

By Amanda Bronstad

Defense attorney Edward Hugo, of Hugo Parker, outside the Hayward Hall of Justice in Alameda County Superior Court on July 15, the first day of voir dire in an asbestos trial set for next week.

Jurors curled up in bed, working out on an elliptical machine, getting up to check if the stove’s burner was on.
Locked-Down Lawyers Warned Alexa Is Hearing Confidential Calls

Crystal Ts, Jonathan Browning

An Amazon Echo Plus smart speaker.

Photographer: Andrew Burton/Bloomberg

Hey Alexa, stop listening to my client’s information.

As law firms urge attorneys to work from home during the global pandemic, their employees’ confidential phone calls with clients run the risk of being heard by Amazon.com Inc. and Google.
AI and the Court Systems: Some Early Examples

- Automatic scanning and docketing of court filings
- Facial recognition log-in to court computer systems
- Chatbots for public inquiries
- Juror hotline
- Identify “red flags” in guardianship/conservatorship cases
- Triage cases for automated case management

Source: NCSC
Legal Chat Bots
Robot lawyer DoNotPay now lets you ‘sue anyone’ via an app

Fight for your rights, or maybe just avoid a parking ticket or two

By Jon Porter | @JonPorty | Oct 10, 2018, 12:13pm EDT

DoNotPay, a free chatbot that offers AI-powered legal counsel, has launched an iOS app which can be used to access its service, reports Motherboard. While the app advertises that it can be used to “sue anyone by pressing a button,” its focus is on suing corporations and navigating the complex bureaucracies that stand between people and their everyday rights. Previously, the service was only available directly through its website.
Replacement of Legal Jobs by Artificial Intelligence by 2030

<table>
<thead>
<tr>
<th>Job</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawyers</td>
<td>3.5%</td>
</tr>
<tr>
<td>Judicial Law clerks</td>
<td>41.0%</td>
</tr>
<tr>
<td>Court reporters</td>
<td>51.0%</td>
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<tr>
<td>Administrative Law Judges</td>
<td>64.0%</td>
</tr>
<tr>
<td>Paralegals</td>
<td>94.0%</td>
</tr>
</tbody>
</table>
One thing is becoming clear: lawyers who use artificial intelligence will replace lawyers who don’t.

Sources: AbovetheLaw.com; lawsitesblog.com
Jury Screening

Voltaire Uses AI and Big Data to Help Pick Your Jury

Legal AI company Voltaire has launched an application that will allow lawyers and litigation consultants to rapidly analyse potential jurors by crunching public Big Data, including social media posts.
Automated Research

Upload basic identification information and automatically get access to billions of public, social and behavioral records – eliminating hours of exhaustive human research and increasing your level of accuracy and detail.

- VOTER REGISTRATION
- CRIMINAL HISTORY & BACKGROUND
- ONLINE AUTHORSHIP
- LIKES & INTERESTS
- SOCIAL MEDIA
- CAMPAIGN CONTRIBUTIONS
- FINANCIAL & REAL ESTATE
- PROFESSIONAL INFORMATION

https://www.youtube.com/watch?time_continue=58&v=zRhQpyx9OGk&feature
Facial Recognition Technology Used in Jury Consulting
Reading Faces in All the Wrong Places: Emotion Analytics Software in the Courtroom

From privacy concerns to juror distraction, these are the issues that arise from applying emotion analytics in the courtroom.

Rick Martinez, Legaltech News

January 7, 2016

Most people know Facebook and Google can “read” a face and identify the person. Next generation software goes much further: uncovering moods and emotions. Courts and trial counsel alike should consider now the implications of possible courtroom use.
Machine Testimony

ANDREA ROTH

ABSTRACT. Machines play increasingly crucial roles in establishing facts in legal disputes. Some machines convey information—the images of cameras, the measurements of thermometers, the opinions of expert systems. When a litigant offers a human assertion for its truth, the law subjects it to testimonial safeguards—such as impeachment and the hearsay rule—to give juries the context necessary to assess the source’s credibility. But the law on machine conveyance is confused: courts shoehorn them into existing rules by treating them as “hearsay” as “real evidence,” or as “methods” underlying human expert opinions. These attempts have not been wholly unsuccessful, but they are intellectually incoherent and fail to fully empower juries to assess machine credibility. This Article seeks to resolve this confusion and offer a coherent framework for conceptualizing and regulating machine evidence. First, it explains that some machine evidence, like human testimony, depends on the credibility of a source. Just as so-called “hearsay dangers” lurk in human assertions, “black box dangers”—human and machine errors causing a machine to be false by design, miscalculate, or analytically unsound—potentially lurk in machine conveyances. Second, it offers a taxonomy of machine evidence, explaining which types implicate credibility and how courts have attempted to regulate them through existing law. Third, it offers a new vision of testimonial safeguards for machines. It explores credibility testing in the form of front-end design, input, and operation protocols; pretrial disclosure and access rules; authentication and reliability rules; impeachment and courtroom testing mechanisms; jury instructions; and corroboration rules. And it explains why machine sources can be “witnesses” under the Sixth Amendment, refocusing the right of confrontation on meaningful impeachment. The Article concludes by suggesting how the decoupling of credibility testing from the prevailing courtroom-centered hearsay model could benefit the law of testimony more broadly.
The verifiable integrity of Blockchain records, linked and secured using cryptography, could soon be used in a variety of innovative ways to resolve court recordkeeping challenges. At the same time, Blockchain presents new legal issues that courts must be prepared to address.

When Might Blockchain Appear in Your Court?

Di Graski, Consultant, National Center for State Courts
Paul Embley, Chief Information Officer, National Center for State Courts
IRS Followed Bitcoin Transactions, Resulting In Takedown Of The Largest Child Exploitation Site On The Web

Kelly Phillips Erb  Senior Contributor @ Taxes

“Our agency’s ability to analyze the blockchain and de-anonymize bitcoin transactions allowed for the identification of hundreds of predators around the world.”

The largest dark web child pornography site in the world has been taken down. That was the word today from the U.S. Attorney’s Office.
Dubai International Financial Center (DIFC) Courts, with the support of the government-backed Smart Dubai initiative, will explore blockchain as an enabler for court judgments' verification. To put it simply, Dubai will launch the first-in-the-world court on the blockchain.
SCIENTISTS WANT TO TAKE VIRTUAL REALITY TO COURT

JURORS MAY ONE DAY VISIT CRIME SCENES USING FORENSIC HOLODECKS

By Sarah Fecht  January 9, 2015

Virtual reality reenactment of the Tamir Rice incident shows the perspective of the officers as they drove toward the area where Rice was shot.
O’Melveny & Myers will ask law students interested in joining the firm to play computer games designed to test their cognitive skills while rooting out hiring biases, an approach that may signal a new industry recruitment trend.
Brain-Machine Interfaces
FIND THE BEST ATTORNEY FOR YOUR DUI CASE.

PERCENT OF PEOPLE WHO AVOID A DUI CONVICTION

- A-Rated Attorney: 78%
- Private Attorney: 56%
- Public Defender: 43%
- No Attorney: 17%

What judge you have matters. What attorney you have matters even more. Our unique grading algorithm has analyzed hundreds of thousands of court cases start to finish and identified the attorneys who get the best results for each judge and each case type. Attorneys who earn the "A-Rated" designation are the best of the best. Find out which attorneys get the best results for their clients in front of your judge.
Legal AI Landscape 2019

LawGeex
Judge Analytics

Understand how judges think, write, and rule.

Judge Dashboard
The Judge Dashboard encompasses your judge’s entire career—every decision, every citation, housed in a single location. The dashboard lets you identify the cases, circuits, and judges your judge finds most persuasive.

Specific Language
Uncover the rules and specific language your judge favors and commonly cites. Pinpoint distinctions that set your judge apart to ensure you never miss the nuance that could win or lose your argument.

Litigation Strategy
Make data-driven decisions about everything from how to frame arguments to whether to file a particular motion—decisions that can make or break a case.

https://www.ravellaw.com/judges
Judge's Football Team Loses, Juvenile Sentences Go Up

No, seriously.

EMILY DERUY | SEP 7, 2016 | EDUCATION
France Bans Judge Analytics, 5 Years In Prison For Rule Breakers
Harvard Forum: Should Older Politicians And Judges Be Tested For Mental Decline?

November 17, 2017   By Carey Goldberg
Hey Watson: Local judge first to use IBM’s artificial intelligence on juvenile cases

Montgomery County’s Capizzi teams with IBM to design system for children’s court.
A.I. Judges: The Future of Justice Hangs in the Balance

Automation is creeping into the courtroom, and it's going to change the way we think about the law.
Q: “Can you foresee a day, when smart machines, driven with artificial intelligences, will assist with courtroom fact-finding or, more controversially even, judicial decision-making?”

C.J. Roberts: “It’s a day that’s here, and it’s putting a significant strain on how the judiciary goes about doing things.”

NY Times, May 1, 2017
AI-powered court opened in Hangzhou in 2017 and has handled more than 3 million case; human judge in the loop although most of proceedings handled by AI system
Beijing Internet Court has decided tens of thousand of cases since 2018.

The judges that “appear” by hologram are artificial creations—there is no actual judge sitting in a courtroom whose image is beamed to a mobile device. The hologram-judge looks like a real person but is in fact a synthesized, 3D image of different judges, sort of like the “Mash Up” toys that combine parts of different superheros. Instead of engaging in child’s play, though, this hologram-judge sets schedules, asks litigants questions, takes evidence, and issues dispositive rulings.
Conclusion
Conclusion: Advice from “The Great One”

“I skate to where the puck is going to be, not where it has been.”

Wayne Gretzky
And Finally ....

Don’t be afraid ...

... we humans are still in control

.... for at least a while yet.

https://www.youtube.com/watch?v=VqwL7Gnxil0
Emerging Technologies and the Courts

Gary E. Marchant

The world is changing at a faster pace today than ever before, in large part fueled by an unprecedented rate of technology advances. This pace of technological change will only accelerate going forward. We all must take this reality of unprecedented change into account as we plan our futures, perform our professional duties, and in the case of judges, write judicial opinions. As Chief Justice of the U.S. Supreme Court John Roberts stated in an interview at the time of his appointment, “politicians—judges for that matter—should be wary of the assumption that the future will be little more than an extension of things as they are.” It is human nature to perceive the world today the same as it was yesterday, and the same as it will be tomorrow. This static view of the world is an illusion, however, and masks the unprecedented disruptive change going on in the world around us.

Technology is the key driver of much of the rapid change we are experiencing today. An unprecedented number of emerging technologies are moving simultaneously from the laboratory or even science fiction into real-life applications. Examples include artificial intelligence, robotics, synthetic biology, 3D printing, nanotechnology, brain-computer interfaces, genetic sequencing, human gene editing, Internet of Things, RFID chips, mobile health, drones, virtual reality, and blockchain. Each of these technologies has already spawned real companies, real products, and real lawsuits, with much more to come over the next couple of decades. Every one of these technologies will have enormous impacts on our individual lives, as well as creating widespread beneficial and disruptive effects for our social, economic, and legal systems.

One thing these new emerging technologies don’t have is effective regulatory systems. These technologies have emerged so fast that our legislative and regulatory branches of government have been caught flat-footed and have not been able to put in place comprehensive government oversight. This inaction might be a blessing in disguise, since any regulatory enactment would likely be obsolete by the time the ink dried, given that these technologies are developing and evolving so rapidly.

The result is that courts are often on the front line in addressing the inevitable conflicts and potential harms that may be side effects of emerging technologies. In theory, courts may not be the optimal branch of government to address the societal impacts of emerging technologies. Courts lack the technological staff and resources available to the other branches of government, and must address problems in the context of the facts in individual cases rather than taking a broader, more comprehensive approach. Most judges lack technological expertise, and are limited in what information they are permitted to consult. Moreover, judges are more comfortable enforcing statutes and rules adopted by other branches of government, rather than having to forge for themselves the new rules of the road for emerging technologies.

But courts do not have the luxury that the other branches of government usually have of postponing decisions when issues relating to new technologies appear on their docket. Courts are already being, and will even more in the near future be, called upon to adjudicate complex and unprecedented issues raised by emerging technologies. So like it or not, judges will have to get used to being on the front line of new technologies, and to have a basic understanding of both the technical and legal dimensions of these technologies. In this article, I preview some of these issues, organized into categories of new substantive claims and defenses, evidentiary aspects, and impacts on the judicial process and court operations.

NEW SUBSTANTIVE CLAIMS AND DEFENSES

The many emerging technologies disrupting commerce and society are not surprisingly presenting courts with novel claims and defenses. No technology is more disruptive than artificial intelligence (AI), and it is already presenting the legal system with new challenges about responsibility and culpability. In the past era of rule-based AI, a human programmer pre-programmed every decision an AI would make in response to certain inputs or events, and thus the human programmer could explain and be held responsible for the actions of the AI system. Modern AI is mostly based on machine learning, a form of data-based AI, in which the AI system learns itself by trial and error from data, with no human programming the AI what to do. This creates new issues for courts. No human can explain why the machine learning AI did what it did. it is a black box. So when such an AI system causes harm, who is responsible?

This dilemma was illustrated by a recent case in Switzerland where art gallery owners created a machine-learning bot and released it on the web with some bitcoins and the instruction to go purchase interesting items for the art gallery. All was going well until one day the police knocked on the art gallery door, and said they had intercepted parcels that contained a pound of the drug Ecstasy and a stolen passport, both of which were criminal acts to purchase. After discussing the matter with the art gallery owners who claimed that they neither intended nor anticipated the purchase of the illegal goods, the police eventually confiscated the computer that controlled the naughty bot. Sometime later the police sheepishly returned the computer and did not file any charges. This example portends a bigger issue as AI bots

Footnotes
3. Id.
assume a larger and larger role in society, and will inevitably commit some crimes and torts, but who (or what) will meet the traditional legal requirements of mens rea, negligence, and foreseeability when it is the machine rather than a human programmer making the decisions? Genetic evidence has been introduced in some cases to show a genetic predisposition to criminality. A common mutation in the MAOA-A gene, which codes for an enzyme that breaks down brain hormones such as serotonin, may significantly increase the probability of criminality; especially if it is combined with an abusive early background. A number of criminal defendants have attempted to introduce evidence of such a genetic influence as mitigating evidence in capital murder cases. Judges have differed on whether such evidence is admissible, and juries have varied in how much weight, if any, they give to such evidence as a mitigating factor in sentencing. The new type of genetic defense raises profound issues about guilt, culpability, and punishment, for which there are no simple right answers.

Privacy cases present many new technology questions for judges. For example, does a property owner have a privacy claim against a neighbor who flies a drone above his swimming pool taking video footage of a private pool party? Numerous claims have been presented to courts about this and many other alleged privacy intrusions involving drones. There have even been cases where the landowner shoots down the neighbor’s drone—is the privacy invasion a legitimate defense for such self-help measures? Courts have also been asked to decide issues of the legal restrictions, if any, on use of GPS location tracking on a phone or car for employers to track their workers, parents to track their kids, spouses to track their partners, and stalkers to track their victims. Although the FCC has been requested for many years to issue rules on the use of location data generated by smart phones, the absence of such rules leaves judges on their own to craft appropriate rules to balance the conflicting interests at issue in such cases.

A final example is a whole spectrum of cases involving reproductive technologies. Courts have been confronted with cases involving the disposition of embryos when the couple who created the embryos divorce or are killed, or what custody rights do a genetic versus a non-genetic parent have when a family breaks up. Other cases have required courts to decide what happens if embryos are accidentally destroyed, what limitations (if any) can state legislatures put on parents’ rights to genetically test (and abort) an embryo or fetus, and what rights a child produced by in vitro fertilization where anonymous donors provided half or all of the genetic input have to recover in the estate or insurance policy of their social parent.

The Massachusetts Supreme Judicial Court complained that courts are being stuck with tough technology issues that should be decided in the first instance by publicly accountable legislatures.

For the second time this term, we have been confronted with novel questions involving the rights of children born from assistive reproductive technologies. As these technologies advance, the number of children they produce will continue to multiply. So, too, will the complex moral, legal, social, and ethical questions that surround their birth. The questions present in this case cry out for lengthy, careful examination outside the adversary process, which can only address the specific circumstances of each controversy that presents itself. They demand a comprehensive response reflecting the considered will of the people.

NEW TYPES OF EVIDENCE

Judges are already confronting new types of evidence enabled by technology coming into their courtrooms, whether it be social media evidence, images from surveillance cameras, facial recognition evidence, or forensic DNA in criminal cases. This is just the beginning, however, of a coming tsunami of novel technological evidence. Emerging technologies are providing many new types of evidence that are challenging judges and juries.

7. Id.
judges without advanced neuroscience training will be hard-pressed to decide [neuroimaging] cases in a scientifically credible and consistent manner."

For example, neuroimaging is increasingly being used in court cases for a variety of potential uses. In several hundred cases, brain-imaging evidence was produced to show that a criminal defendant allegedly lacked the cognitive capability to have the requisite mens rea, or more commonly to show some type of alleged brain damage that might mitigate the defendant’s criminal culpability.18 Courts and juries are all over the map in receiving such evidence – some judges allow it to be introduced while others do not, some juries find the evidence to be persuasive mitigating evidence, others do not.19 Other attempted or potential uses of neuroimaging in court cases include brain scans for lie detection,20 pain,21 post-traumatic stress disorder,22 recidivism,23 and subclinical traumatic brain injury.24 Given the complicated technical issues of how such brain-scanning evidence is conducted and presented, along with the uncertain ethical and legal significance of brain lesions or aberrations, judges without advanced neuroscience training will be hard-pressed to decide such cases in a scientifically credible and consistent manner.25

Genetics is another source of scientific evidence that is having enormous legal implications. Most judges are already familiar with the use of forensic DNA for identification in criminal law; but that is just the first of many diverse applications of genetic evidence in court cases. DNA is already having dramatic impacts on paternity cases,26 immigration cases,27 and food-poisoning cases,28 in which DNA provides a highly accurate and legally salient map for quantifying both human and microbial relationships. Genetic mutations are also being used to identify exposures in toxic tort cases, and differences in genetic susceptibilities to chemical and pharmaceutical exposures are increasingly being used by defendants in some cases and plaintiffs in others to argue for or against causation in personal injury cases.29 Judges are now being called upon to determine whether a defendant can undertake intrusive genetic testing of a plaintiff to discover genetic traits relevant to causation, taking into account the same type of information may be used by the plaintiff when helpful to their case.30 In at least one case, the genetic testing of the plaintiff revealed genetic risk information that was crucial to the health of the plaintiff and his family, but because the testing was done by a testing lab contracted by the defendant, no one associated with the case had a physician-patient relationship with the plaintiff.31 In that case, the judge felt compelled to take the task of trying to genetically counsel the plaintiff, a skill that is not taught in judges’ school!

Location-tracking technology raises many evidentiary issues for courts. A person’s location is often tracked and recorded by the GPS chip in their cell phone and by cell tower triangulation. The U.S. Supreme Court in its 2018 Carpenter decision held that police needed a warrant to access continuous location data over many days using cell tower records.32 The Court left undecided whether less prolonged continuous location monitoring also required a warrant. In most states, there are no laws about private use of cell phone location data, so courts are called upon to decide whether GPS evidence can be used in a variety of contexts, such as divorce cases. In several cases with contradictory outcomes a defendant has attempted to use GPS cell records to contest a speeding ticket based on police radar – judges are required to decide in such cases whether GPS phone records or police radar is more accurate, not an easy technical issue to resolve, especially considering there is usually no expert testimony in these cases in which only a couple of hundred dollars are at stake.33

19. Id.
31. This anecdote was reported by an audience member at an ABA conference in which the author was speaking about genetic testing and toxic torts.
Justice Alito, in another location-tracking case, pointed out that legislatures not courts should be deciding these issues in the first place:

In circumstances involving dramatic technological change, the best solution to privacy concerns may be legislative... A legislative body is well situated to gauge changing public attitudes, to draw detailed lines, and to balance privacy and public safety in a comprehensive way. To date, however, Congress and most States have not enacted statutes regulating the use of GPS tracking technology for law enforcement purposes.  

Unfortunately, such judicial pleas for legislative guidance have fallen on deaf ears, and federal and state legislators have failed to provide courts with clear rules to decide these location privacy issues.

The Internet of Things (IOT) is another technology that will increasingly generate new types of evidence that will be used in court cases. The IOT consists of networks or sensors connected to the Internet. For example, the “smart” devices responsible for smart homes and smart cities are examples of IOT sensors. There are now over 6 billion such smart devices connected to the Internet, with more than 5 million new devices being connected every day. In the home alone, these smart devices include home security systems, home speakers, garage doors, heating and air conditioning systems, refrigerators, ovens, ranges, washers and dryers, televisions, home entertainment, lighting, outlets, and switches. Each of these smart devices collects and stores data that is communicated over the Internet.

Already, we have started to see cases of evidence from such devices being sought to help prove events or communications. For example, the Amazon Echo device, often known as Alexa, has already been subpoenaed in a couple of murder cases based on the possibility that the Alexa device may have heard and recorded events in the home where the murder took place. In one of these Alexa cases, data from a smart water meter may have provided even more relevant evidence to help solve the murder. IOT devices in the home have also been used to provide evidence of a software or sensor malfunction that results in a fire and other types of property damage.

As with so many of the technologies now entering society, there are not yet any rules or laws governing access to IOT devices. The bipartisan Electronic Privacy Information Center sent a widely cited letter to the U.S. government in July 2015 calling for the establishment of some rules of the road for the smart IOT devices being installed in our homes—“Americans do not expect that the devices in their homes will persistently record everything they say. It is unreasonable to expect consumers to monitor their every word in front of their home electronics. It is also genuinely creepy.” Despite this and other requests for rules to govern these devices, none have yet been enacted, and courts are left on their own to try to figure out the appropriate rules of the road for IOT devices.

A special type of IOT device increasingly used to provide evidence in courts are wearables such as Fitbits and smart watches. These devices collect and store data on the activity and location of its owner, which turn out to be relevant in a variety of court cases. The first such case was a workers’ compensation case where the injured worker used her Fitbit data to prove how her lifestyle changed dramatically after a workplace injury.

Fitbit data has also been used in a number of motor vehicle and accident cases to show the relative positions and the speeds of the parties involved in the collision. Perhaps most significantly, such wearable data has been used to solve several murder and rape cases. This has led to what is probably my favorite title of all time for a student law review note: “Wearable Devices as Admissible Evidence: Technology Is Killing Our Opportunities to Lie.”

3D Printing is yet another emerging technology that is already starting to be used in court evidence. 3D printing has advanced rapidly in recent years—from printing relatively simple three-dimensional plastic objects such as an animal figurine, to now printing more complex objects using metals, composites, and even living cells. The era of 3D printing is already presenting many legal issues, such as the potential to print contraband items such as guns or recreational drugs in one’s own home, to intel-

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36. Id.
39. O'Brien, supra n. 35.
44. Nicole Chauriye, Wearable Devices as Admissible Evidence: Technology Is Killing Our Opportunities to Lie, 4 CATH. U. J. L. & TECH. 495 (2015-2016)
"[F]eatures of the blockchain make them very attractive for a growing number of legal and illegal applications."

lectual property issues associated with printing patented, copyrighted, or trademarked items. Attorneys and their experts are now starting to use 3D printing to create visual aids for trial presentations that could provide judges and juries a better representation of an object important to the case. The fact-finder can handle and inspect the 3D-printed object from various perspectives, and evidence suggests that this helps the judge or juror better understand and remember the object. Police are also using 3D scanners to recreate a crime or accident scene, which can then be used to produce exhibits that can demonstrate key elements of the case to the jury with unprecedented accuracy and vividness.

Blockchain will be yet another evidentiary challenge for courts. Blockchain is the technology underlying cryptocurrencies such as Bitcoin, but it also has dozens of other applications such as smart contracts, financial services, supply chains, health, energy, real estate, and even government services such as elections. The blockchain is a distributed ledger, which means there are many computers (or "nodes"), each of which has a complete copy of the ledger, providing both greater security and participation compared to a centralized database with a single entity and a single point or attack. The other key feature of the blockchain is that the entries on the ledger are cryptographically "hashed" into blocks of encrypted records that are both anonymous and immutable. While each transaction on the blockchain can be tracked by any authorized user, the identity of the parties involved in each transaction is kept private using a private "key."

These features of the blockchain make them very attractive for a growing number of legal and illegal applications, including many applications by courts themselves in court recordkeeping and managing court judgments, warrants, and criminal histories. However, blockchain evidence is already presenting unique challenges for parties and courts in criminal investigations and civil discovery given the quasi-anonymity of the owners of the encrypted data and assets.

The admissibility of blockchain evidence may also be an issue because of hearsay problems. Already, judges are being called upon to address such blockchain discovery and admissibility disputes, and these issues will rapidly proliferate going forward as every major company in the country is already implementing blockchain projects. Resolving such issues requires judges to have a basic familiarity with blockchain technology which most judges currently lack.

Artificial intelligence algorithms will also increasingly be used as evidence in courts. An algorithm is essentially a formula for predicting a result from a set of data – most algorithms today are implemented by AI machine learning. Many AI algorithms are developed by private entities and require significant investment to collect a robust and representative data set and then develop an algorithm that optimizes its output. Not surprisingly, the developers of such algorithms seek to keep the data and underlying software program for the algorithm proprietary. This can present a problem if the algorithm is then used in court as evidence.

Many states use algorithms in criminal cases to determine the need for pretrial detention or to estimate the risk of recidivism during sentencing or probation determinations. The Wisconsin Supreme Court held that a court could rely on a proprietary sentencing algorithm, without disclosing the underlying data and formula to the defendant and his counsel, provided that the court used the algorithm as just one input and did not rely on the algorithm exclusively. The defendant had argued that it was a due process violation to deny him access to the algorithm so he could have his counsel or an expert test the algorithm for validity or bias. Other courts have held that it would be a due process violation for government entities to rely on proprietary algorithms in a variety of other contexts, such as determining Medicaid benefits or teacher ratings. The European Union has published an 80-page manual for European courts on how to handle AI evidence, but no such guidance exists at this time for U.S. judges, who are thus required to decide these issues on their own on a case-by-case basis.

Perhaps the greatest evidentiary threat to the courts is the rise

46. Id.
53. K.W. v. Armstrong, 789 F.3d 962 (9th Cir. 2015).
of “deep fakes.”

Deep fakes are photographs or videos manipulated using AI to make it appear that someone is saying or doing something that they did not say or do. This deep fake technology has quickly gotten very good, and it often takes an expert considerable time to determine that a video or photo is fake. Some experts believe that within a year or less it will become impossible to determine whether a picture or video is fake. This technology presents a grave threat to our political and national security systems. As a fake and sensational fabrication of a politician or soldier could be highly disruptive. As courts increasingly utilize as evidence videos from smart phones, CCTV surveillance cameras, and police body cams, this threat to the trustworthiness of photographs and videos will present a major challenge to courts. If we can no longer believe what we see, the privileged position that photographs and videos have had in our litigation system will disappear. Not only will we not know that a fake video or photo has been fabricated, but it will be easy to claim that a real video or photo is fake. Judges, juries, and litigators will all be tested as we enter the “post-truth” society, and new rules and strategies for authenticating visual evidence will be needed.

**IMPACTS ON COURT OPERATIONS AND JUDICIAL PROCESS**

Over the past decade or so, technology has significantly changed courtrooms and the judicial process. Online filing, digital evidence, e-discovery, courtroom presentation technologies, as well as remote communication and even testimony have evolved the courtroom and the profession of being a judge in ways that were not anticipated when most current occupants of the bench were in law school. However, the technological change experienced so far will pale compared to the coming impact of emerging technologies on courtrooms and emerging technologies, which will be more revolutionary than evolutionary.

For example, some future cases may be litigated using virtual reality. As one analysis recently concluded, “both VR [virtual reality] and AR [augmented reality] will become part of the litigation process. The only question is when.”

Such evidence could provide a much more realistic and impactful view of a crime or accident. As one scientist working in this field projected, “Imagine you could transport the entire jury, the judge, the litigators — everybody — back to the crime scene during the crime. That would be the best thing possible for any trial.”

A prominent plaintiffs’ lawyer predicts that “in 10 years, most trial lawyers will be using VR just like they’re using laptops today. VR will be the norm, not the exception.”

VR has already been used in courtrooms in China and several U.S. companies claim to be developing a VR tool for use in courtrooms in this country.

Use of VR in the courtroom would raise several procedural issues for judges and courts. First, given the persuasive power of being immersed in a VR experience, how can courts ensure that VR presentations accurately represent the facts of a given case? Simulations are sometimes used in courts today, but are subject to rigorous evidentiary scrutiny. The same would be required for VR, especially when one party has the technological sophistication to produce and assess such representations, where the other party may not. Also, some people who encounter VR experience dizziness and motion sickness — how should a court deal with a situation where a minority of jurors are not able to continue with a VR presentation that their fellow jurors experience in full? Finally, immersing jurors in realistic VR re-enactments of violent crimes or grisly accidents may be traumatic for some jurors. Would jurors need to be psychologically screened and counseled before being selected for juries that will be exposed to such VR evidence?

**Legal analytics** are also increasingly used in the litigation process. This technology uses the vast quantities of data now available online (“big data”) to predict results or recommend strategy in the litigation process. Many vendors are now marketing such legal analytical tools to law firms. Of greatest relevance to judges, some commercially available tools attempt to predict or influence the decisions of individual judges. The tool collects all available data on that judge’s previous decisions and opinions, supplemented with any secondary information about that specific judge available from media stories, social media, and other sources, and then applying AI to process the data, it predicts not only the likely outcome and timing of the judge’s opinion, but also provides customized advice on specific arguments, precedents, and even phrasing to use or not use based on the particular

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63. Homampour, supra n. 59, at L12.

64. Id.
The ultimate disruption of the judicial process would be the rise of robo-judges.

LSU football team lost a game. These types of correlations affecting the judgment of individual judges or judges as a group revealed by big data and AI have the potential to reveal patterns that may discredit or embarrass the judiciary. France has responded to this new reality by criminalizing the use of judicial analytics software – punished by up to five years in prison. Such a solution is unlikely to be adapted in the United States under our First Amendment, so judges should be prepared for a future where their decisions, both individually and collectively, are sliced and diced by new data analytic tools to provide new insights and surprises.

Various big data tools are also being applied to jurors. Courts can take advantage of the more accurate and up-to-date online information now available to achieve more accurate and efficient summoning of jurors. At the same time, parties can use these same databases and more to better characterize prospective and selected jurors with respect to their opinions, biases, and values. Vendors are now offering digital tools that allow lawyers to profile an individual juror prospect in real time, using predictive analytics to integrate and evaluate all the data available on a juror derived from demographic data, vital statistics, juror questionnaires, and social media postings. These services even integrate data on the juror’s purchase decisions and other behaviors that are obtained by data brokers. Such intrusive searches into the personal data and history of prospective jurors may create a backlash against jury service by many citizens. These jurors “big data” tools are not only being used for jury selection, but can also guide attorneys on what arguments will be most effective with jurors, and have even been used to obtain litigation funding based on a favorable jury profile.

As decisions are increasingly made by AI algorithms that are not programmed by humans but rather make their own “decisions” based on their machine learning, how will such algorithms be interrogated in trials? Scholars are beginning to take seriously and start thinking through the implications of having machines serve as witnesses in trials. One insightful exploration of this issue concluded that “certain machine evidence implicates the readability of a machine source, that the black box dangers potentially plaguing machine sources trigger the need for credibility testing beyond what is contemplated by existing law, and that accusatory machine conveyances can be ‘witnesses against’ a defendant under the Confrontation Clause.”

The concept of a machine testifying in a court trial is truly a revolutionary change to our legal system.

Brain-machine interfaces (BMI) will profoundly affect future society, including the judicial system. BMI involves linking computers directly to our brains – to either collect information from our mental process, and perhaps someday to insert ideas and instructions directly into the brain. Major companies and research institutes in the United States, China, and Japan, including Facebook and Elon Musk’s Neuralink, have been reporting significant advances in BMI, particularly in deciphering what a brain is thinking. This has produced claims that BMI technology powered by artificial intelligence will soon be able to “read” our thoughts.

The ultimate disruption of the judicial process would be the rise of robo-judges. We are already seeing some early examples of AI systems participating in the judicial process. In Argentina, a software program named Prometeo is used to generate draft judicial opinions on various types of routine cases such as public-housing or taxi license disputes – the overseeing judge has approved 100 percent of these draft decisions as written to date. China is now using AI judges to handle routine and small cases, “featuring an artificially intelligent female judge, with a body, facial expressions, voice, and actions all modeled off a living, breathing human (one of the court’s actual female judges, to be exact).” An Ohio judge is using the Watson artificial intelligence system to help him read through and process the large paper records in many juvenile cases.

U.S. Supreme Court Justice John Roberts was recently asked, “Can you foresee a day when smart machines, driven with artificial intelligences, will assist with courtroom fact-finding or, more controversially even, judicial decision-making?” Chief Justice

67. Id. at 17-18.
68. Id. at 17. This data can include gun ownership, the profession of the jury’s relatives, magazine subscriptions, TV shows viewed, and political affiliation.
71. Id. at 2051.
77. Adam Liptak, Sent to Prison by a Software Program’s Secret Algorithm, N.Y. TIMES, May 1, 2017.
Roberts replied: "It's a day that's here, and it's putting a significant strain on how the judiciary goes about doing things." While some scholars are already exploring the implications of AI judges,  
AI will not replace all judges anytime soon. Like every other sector in the economy, AI will increasingly play a role in almost everything we do, and those who reject or ignore the technology will soon be displaced by those who utilize and try to harness the incredible power of new disruptive technologies such as artificial intelligence.

CONCLUSION

As this extremely brief incursion into a large number of complex and disruptive technologies has hopefully demonstrated, these emerging technologies will dramatically change all aspects of our lives and society, including the practice and profession of judging. Because these technologies are advancing too fast for legislatures and regulatory agencies to effectively regulate the technology, courts by default will be on the front line in resolving the conflicts, risks, rights, and responsibilities that these technologies present, often writing on a blank slate of relevant rules and precedent. As such, judges will have no choice but to become knowledgeable about the new technologies underlying novel legal claims and defenses, new types of technology evidence, and the systemic changes to the courtroom and judicial process driven by new technologies. This will not be an easy task given the lack of technical training for most judges, the lack of trained scientific and engineering staff assistants, and the limitations placed on judicial decisions by the specific parties and record in front of the judge. Yet, just as lawyers are now required to demonstrate a minimum level of technological competency by the ABA (and most state bar associations) in its Model Rules of Professional Responsibility, 60 so too judges will need to have a basic level of scientific and technological knowledge and understanding to perform their jobs competently in the new era of emerging technologies.

It will be tempting for judges to try to avoid these tough technological and scientific issues by deciding cases on legal technicalities or other grounds that judges are more familiar with. But as federal judge Jed Rakoff, who has long been actively involved in court-science issues, has pleaded, society urgently needs judges to step up the plate and provide some clarity and certainty about the legal aspects of emerging technologies:

[If I had a magic wand, I would say to my fellow judges, "I know that when you have a case that involves a scientific issue and a technical legal issue, your natural instinct may be to see if you can resolve the case on the technical legal issue, but you're not really advancing the law as well as could be done if you would take the time to address the scientific issue. The technical legal issue may never come up again; and even if it does, it doesn't really get to the merits. The scientific issue is much closer to the merits of the case. If you can advance how judges think about science on any particular issue, you will be doing well, and it's a great service." ]

On the other hand, judges don't want to get too far out in front of technology, given how fast technology changes often in unpredictable ways. Justice Kennedy warned about this danger in his decision in the City of Ontario v. Quon case, 62 which dealt with a public employee's privacy rights in communication technologies. He warned that "the judiciary risks error by elaborating too fully" on the legal aspects of a rapidly evolving technology, and that "prudence counsels caution before the facts in the instant case are used to establish far-reaching premises" that "might have implications for future cases that cannot be predicted." 64

So judges must walk a fine line between ducking the scientific issues altogether versus overreaching beyond their current knowledge to the murky unpredictable waters of future technologies. There is no question that judges will be challenged by the many new emerging technologies now starting to pervade their courtrooms and dockets. But on the positive side, these technologies are immensely important and fascinating to our own individual lives, those of our children and grandchildren, and the substance and process of judging.

Gary Marchant is a professor of emerging technologies, law, and ethics at the Sandra Day O'Connor College of Law, Arizona State University. In addition to his J.D. from Harvard Law School, Prof. Marchant holds a doctorate in genetics from the University of British Columbia. His research interests include the use of genetic information in environmental regulation, risk and the precautionary principle, legal aspects of personalized medicine, and regulation of emerging technologies.

78. Id.
80. ABA, Model Rule of Professional Responsibility 1.1, comment 8 (2012).
81. Frederic I. Leiderer, Judging in the Age of Technology, JUDGES' J., Fall 2014, at 6, ("technological competence is or soon will be a requirement for judges").
82. Ashish Joshi, Interview with Judge Jed Rakoff, Litig. (ABA), Fall 2019, at 15, 21.
83. 560 U.S. 746 (2010).
84. Id. at 759-60.
RoboLaw

Artificial intelligence is rapidly disrupting every industry in America and every sector of society – and the courts are not exempt.
RoboLaw: Coming soon to your courtroom

By Gary E. Marchant
Regents Professor and Faculty Director, Center for Law, Science & Innovation, Sandra Day O’Connor College of Law, Arizona State University

Artificial intelligence (AI) is rapidly disrupting every industry in America and every sector of society — and the legal system and the courts are not exempt. Indeed, there are already a number of court functions and elements of legal practice that are being transformed by AI, with much more to come over the next decade.

Even though AI has been around since the late 1950s, its recent emergence and prevalence is the result of some important leaps forward in how AI operates. Until recently, AI was rule-based, in that machines implemented instructions coded by a human programmer.

Today, most AI is data-based, in which the machine is not instructed what to do by any human, but rather learns itself how to solve problems or accomplish tasks by processing data and experience. This new approach known as machine learning is radically expanding the utility and capabilities of AI.

Machine-learning AI already permeates our daily lives. Examples of this include internet search engines, voice capabilities on our smart phones and home speakers, Google Maps, ride-sharing apps like Uber and Lyft, online shopping and music sites that predict our preferences, etc.

But machine-learning AI also has application to the courts.

Recently, U.S. Supreme Court Chief Justice John Roberts was asked “Can you foresee a day when smart machines, driven with artificial intelligences, will assist with courtroom fact-finding or, more controversially even, judicial decision-making?”

The Chief Justice replied: “It’s a day that’s here and it’s putting a significant strain on how the judiciary goes about doing things.”

There are three primary domains in which AI interacts with the judiciary and court system: AI in legal practice and court operations, AI as evidence and legal claims against AI applications.
Recently U.S. Supreme Court Chief Justice John Roberts was asked “Can you foresee a day when smart machines, driven with artificial intelligences, will assist with courtroom fact-finding or, more controversially even, judicial decision-making?” The Chief Justice replied: “It’s a day that’s here and it’s putting a significant strain on how the judiciary goes about doing things.”

These AI research programs were initially used by private law firms, but now are being marketed to and used by judicial staff as well.

Perhaps most provocatively, several vendors now market AI brief-writing systems that are targeted to specific judges, which integrate data on previous decisions, favorable and unfavorable arguments, and other available data about specific judges, to customize and target a brief to make it most appealing to an individual judge.

Online dispute resolution (ODR) systems are a subject of active investigation by both private companies and courts in the United States and elsewhere. These systems will employ AI to provide quick and inexpensive preliminary decisions, especially in simpler cases, without any initial involvement by human lawyers or judges. Such ODR systems could help address the major access to justice problem that the United States and other jurisdictions face.

An even more fundamental change is the use of AI to help make judicial decisions, not just advocate for and inform such decisions. A handful of judges have started using AI systems such as IBM's Watson to sift through the large records in many cases and recommend decisions on specific issues or even the entire case.

The cohort of judges using AI on the bench is expected to grow rapidly.

**AI as Evidence**

The second major category of AI application for the courts is the use by governments for various functions. AI algorithms will increasingly be used as evidence in toxic tort causation inquiries, antitrust analyses, discrimination cases and many other types of cases.

**Legal Claims Against AI Applications**

The last category of AI interactions applicable to the courts is when legal claims are made against AI applications. These can be safety claims in tort or product liability, which we are already starting to see with autonomous vehicles and AI medical devices. There may also be legal claims of bias or discrimination against AI applications.

(Gary Marchant is a past speaker at the Pennsylvania State Trial Judges Conference where he spoke about how AI is being used in the legal industry.)
Artificial Intelligence is coming to clerks’ offices soon. Get in on the ground floor and see the benefits of this exciting new technology. Cindy Guerra from the clerk’s office in Palm Beach County, Florida and Tom Hall, former clerk of the Florida Supreme Court, will walk you through the implementation of the first program in the country to use Artificial Intelligence and Robotics to process court documents. They will discuss how it was implemented, how it is working, the benefits of the program, and lessons they have learned. They will also cover how it specifically can be used in appellate courts plus some potential ethical issues you might encounter.
Cindy Guerra serves as Chief Operations Officer of Courts and Official Records and Acting General Counsel for the Clerk & Comptroller of Palm Beach County, Florida. She oversees a staff of 450 deputy clerks who process over 5 million documents every year. Cindy has focused her attention on successfully transforming the Clerk’s office into a technology driven operation. Her team is the first in the country to use cutting edge AI and Robotic technology to process court documents.

Cindy earned her Bachelor’s Degree from American University in Washington, D.C. and a Juris Doctor from Nova Law School in Davie, Florida.

Cindy came to the Clerk’s office in January 2012 from the Florida Attorney General’s Office where she served as Deputy Attorney General for South Florida. Cindy has been an attorney in the State of Florida for 29 years.
Tom Hall is Of Counsel with Bishop & Mills, based in the firm’s Tallahassee office, although he now works almost exclusively from his home office in Babcock Ranch, Florida. He practices appellate law exclusively and has appeared in all six of Florida’s appellate courts. Before returning to private practice Tom was Clerk of Court of the Florida Supreme Court for 13 years and Chief Staff Attorney at the First District Court Appeal for 10 years. Tom is member of the Rules Of Judicial Administration Committee of The Florida Bar and immediate past chair of the Appellate Court Rules Committee of The Florida Bar. He is a retired member of NCACC.

Tom is a former President of NCACC and has hosted the conference twice – once in Florida and once as co-host with Marilyn May in Seattle. Tom has taught at the conference a number of times as well has other national conferences such as the E-Court Conference. He is also the recipient of NCACC’s J.O Sentell award.

Tom is president of TLH Consulting Group LLC and consults with entities doing business with Florida’s Court system. He provides advice on a wide variety of issues, including Florida’s Efiling Portal, and consultation about the rules process of The Florida Bar and individual rule proposals for every area of procedure.
AI Automation
Traditional E-Filing – Palm Beach

Initial Document Intake (Primary Data Extraction)

Filer

Clerk review/Data entry

CMS

Document Workflow (Secondary Data Extraction)

CMS Workflow

Secondary Data Entry
Supervised Machine Learning
(Initial System Setup)

Example Documents (Tagging) → AI software "training" → iClassify and LBX → Knowledge
Production Processing

New Documents → Knowledge Applied → Document Classified/Data Extracted

John Smith 99/99/99

Software Bot Data Entry

LBX
(learn by example)

RPA
(robotic processing automation)
Automated E-Filing (AI + Bots)
Meet our Robots

Arnold Conner
Walley Bishop
Rosie Tobor
Kit Robbie
Hal Isaac
Max Roman
Dolores Daniels
Joshua Martin
Ava Ash
Online Machine Learning
(Self improving system)

New Knowledge Version
+ Online Benchmarking

New Documents → Knowledge Applied → Low Confidence Data → Manual Validation → Software Bot Data Entry
E-Filed Documents for w/e 7/25/2020

Total Documents for July 19, 2020 - July 25, 2020 = 68,539

Paper Docs  |  E-Filed Docs
---|---
34,395 | 34,144

Percentage of E-Filings

Automated E-Filing 30.01%
Civil vs Criminal E-Filing Totals

- Palm Beach currently has 91 docket codes setup for automation
- Each robot has the capacity to process the work of approximately 4 FTEs

<table>
<thead>
<tr>
<th></th>
<th>E-Filing Non-Automated</th>
<th>E-Filing Automated</th>
<th>Total E-Filing</th>
<th>Paper Filings</th>
<th>Total Filings</th>
<th>Percent E-Filing Automated</th>
<th>Percent of Total Automated</th>
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<tr>
<td>Civil</td>
<td>19,915</td>
<td>9,656</td>
<td>29,571</td>
<td>6,672</td>
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<tr>
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<td>4,155</td>
<td>669</td>
<td>4,824</td>
<td>27,472</td>
<td>32,296</td>
<td>13.87%</td>
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<td>24,070</td>
<td>10,325</td>
<td>34,395</td>
<td>34,144</td>
<td>68,539</td>
<td>30.02%</td>
<td>15.06%</td>
</tr>
</tbody>
</table>
Challenges

- Same as when rolling out any new system/process
- Implementation of new releases/software updates – fitting these in with other software releases/updates
- Paper filings/Original document requirements in Criminal
- Heavy up-front investment of time
- Differences in docketing rules based on court and case types
- Confidential filings
Expanding AI – What’s new and what’s next?

- Emailing as per local procedure
- Reports for further actions
- E-Filings with fees
- Official Records indexing
- Case initiation
- Use of native documents to help OCR
- Automation of QA processes
- Processing of all docketing including scanned paper documents
- Adding attorneys to parties on the case
Labor & Employment Law in 2020

Chris Weller

Pandemics, Marijuana, and Trends ... Oh, My!

Chris Weller was admitted to the Alabama State Bar in 1987. He received his B.A. in Political Science from Furman University in 1984 and a J.D., cum laude, from Cumberland School of Law in 1987, where he served as the Casenote Editor of the Cumberland Law Review. Chris is an author and frequent speaker on employment law, trial practice and professional responsibility. He has been recognized by Best Lawyers for his Labor and Employment, Litigation, and Appellate practice areas.

Chris has been practicing labor and employment law for more than 25 years and has successfully defended numerous clients in a wide range of lawsuits involving sex, race, age and wage discrimination. Chris has represented the State of Alabama in three large employment class action cases, successfully defeating class certification in one case and decertifying an existing class in another. Chris also has successfully defended and prosecuted wage and hour claims, non-compete agreement claims, fair housing claims, and ADA accessibility claims.

In addition to his labor and employment practice, Chris serves as counsel for the Alabama House Republican Conference. He successfully defended several challenges to the Alabama Accountability Act of 2013, which established an innovative tax credit program to allow students in chronically failing public schools to attend other schools. Chris also has provided campaign advice to numerous state and local candidates and is the author of the Alabama Chapter of West’s annual publication of Lobbying, PACs and Campaign Finance – 50 State Handbook.

Chris is married to Julia Weller, the first female Clerk of the Supreme Court of Alabama. Chris and Julie have two children – Florence, and Christopher, Jr. When not practicing law, Chris is an avid gardener, runner and backpacker. His bucket list includes backpacking in all the major National Parks in the United States.
PANDEMICS, MARIJUANA, & TRENDS... OH MY!

Labor & Employment Law in 2020
PRESENTED BY
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TOPIC #1: COMING ATTRACTIONS

EEOC TRENDS

SALARY HISTORY BANS

EXPANSION OF LEAVE

AND MORE!
IN 2019, EEOC CHARGES FELL FOR THE THIRD STRAIGHT YEAR TO 72,675 (DOWN 3,743 FROM 2018→ MAY BE TIED TO GOOD ECONOMY).

IN 2019, SEXUAL HARASSMENT CHARGES FELL 1.2%, BUT THERE HAS BEEN A 13% INCREASE IN SEXUAL HARASSMENT COMPLAINTS IN THE WAKE OF THE #METOO MOVEMENT.

IN 2019, EMPLOYERS PAID OUT A RECORD $68.2 MILLION TO THOSE ALLEGING SEXUAL HARASSMENT VIOLATIONS THROUGH THE EEOC, SHATTERING THE ALL-TIME RECORD BY OVER $10 MILLION.

SO, THE TREND IS STILL UPWARD, AND THE #METOO MOVEMENT CONTINUES TO BE A MAJOR INFLUENCE ON WORKPLACES ACROSS THE COUNTRY.
TOP 5 EEOC CHARGE CATEGORIES IN 2019:

- RETALIATION: 39,110 (53.8% OF ALL EEOC CHARGES FILED)
- DISABILITY: 24,238 (33.4%)
- RACE: 23,976 (33.0%)
- SEX: 23,532 (32.4%)
- AGE: 15,573 (21.4%)

INCREASE IN SUCCESSFUL CLASS ACTIONS

- IN 2019, COURT CERTIFIED CLASS ACTIONS IN 64% OF THE EMPLOYMENT CLASS ACTIONS FILED.

- THE #METOO MOVEMENT CONTINUES TO FUEL EMPLOYMENT CLASS LITIGATION.

- OF THE EEOC’S 2019 SEX DISCRIMINATION LAWSUIT FILINGS, 28 INCLUDED CLAIMS OF SEXUAL HARASSMENT, AND 57 OF 84 TITLE VII LAWSUITS WERE BASED ON GENDER DISCRIMINATION ALLEGATIONS.
SALARY HISTORY BANS, WHICH PROHIBIT RECRUITERS FROM ASKING CANDIDATES ABOUT PAST COMPENSATION, HAVE BEEN PASSED IN 17 STATES AND 20 LOCALITIES.

THE GOAL OF SALARY HISTORY BANS IS TO BASE COMPENSATION ON WORK PERFORMED AND NOT ON PREVIOUS PAY THAT MAY REFLECT AND PERPETUATE DISCRIMINATION

- NEW JERSEY’S NEW SALARY BAN LAW WENT INTO EFFECT ON JANUARY 26

- NEW YORK’S NEW SALARY BAN LAW WENT INTO EFFECT ON JANUARY 6 (PROHIBITS ASKING, OR EVEN RESEARCHING, AN APPLICANT’S SALARY HISTORY)
THE FMLA REQUIRES THAT QUALIFIED EMPLOYERS GRANT UP TO 12 WEEKS PER YEAR OF UNPAID LEAVE TO ELIGIBLE EMPLOYEES WHO NEED TO CARE FOR FAMILY MEMBERS OR THEMSELVES.

SOME STATES AND LOCAL GOVERNMENTS ARE IMPLEMENTING MORE GENEROUS LEAVE POLICIES FOR EMPLOYEES:

- **NEW YORK**: EMPLOYEES ARE ENTITLED TO TAKE UP TO 10 WEEKS OF PAID SICK LEAVE IN 2019, AND THE AMOUNT OF PAID SICK LEAVE WILL RISE TO 12 WEEKS IN 2021.

- **CALIFORNIA**: AS OF JULY 1, STATE-MANDATED PAID LEAVE EXPANDED FROM 6 TO 8 WEEKS, WITH AN EVENTUAL EXPANSION UP TO 6 MONTHS.

- **CONNECTICUT**: STARTING JANUARY 1, 2022, EMPLOYEES ARE ENTITLED TO UP TO 12 WEEKS OF PAID LEAVE PER YEAR TO CARE FOR A NEWBORN, A NEWLY ADOPTED OR FOSTER CHILD, A SERIOUSLY ILL RELATIVE BY BLOOD OR MARRIAGE, OR CLOSE ASSOCIATE WHO IS LIKE A FAMILY MEMBER.

- **MASSACHUSETTS**: EMPLOYEES ARE ELIGIBLE TO TAKE UP TO 26 WEEKS OF PAID LEAVE PER YEAR FOR MEDICAL OR FAMILY REASONS STARTING JANUARY 1, 2021. ON JULY 1, 2021, PAID LEAVE BENEFITS WILL ALSO BE AVAILABLE FOR THE CARE OF A FAMILY MEMBER WITH A SERIOUS HEALTH CONDITION.

- **MUNICIPALITIES**, LIKE DALLAS, ARE ADOPTING PAID LEAVE POLICIES.

- **PAID TIME OFF FOR ANY REASON**
VIRGINIA, CALIFORNIA, NEW YORK AND NEW JERSEY OFFICIALLY BAN HAIR DISCRIMINATION.

CROWN: “CREATE A RESPECTFUL AND OPEN WORKPLACE FOR NATURAL HAIR ACT”.

THESE LAWS TYPICALLY BAN RACIAL DISCRIMINATION BASED ON TRAITS HISTORICALLY ASSOCIATED WITH RACE, INCLUDING HAIR TEXTURE, HAIR TYPE, AND PROTECTIVE HAIRSTYLES, SUCH AS BRAIDS, LOCKS, AND TWISTS.
IN THE WAKE OF THE COVID-19 PANDEMIC, EXPECT THE EEOC AND OTHER STATE ENFORCEMENT AGENCIES TO TAKE A CLOSER LOOK AT THE ISSUE OF TELECOMMUTING AS A REASONABLE ACCOMMODATION FOR AN ADA DISABILITY.
UNDER EXISTING LAWS, WITH CERTAIN EXCEPTIONS, EMPLOYERS MAY NOT ASK JOB APPLICANTS ABOUT PAST ARRESTS OR DETENTIONS THAT DIDN’T RESULT IN A CONVICTION FOR PURPOSES OF MAKING HIRING, PROMOTION, OR TERMINATION DECISIONS.

CURRENTLY 35 U.S. STATES AND MORE THAN 150 CITIES AND COUNTIES HAVE PASSED BAN-THE-BOX LAWS, WHICH IN MOST CASES REMOVE QUESTIONS ABOUT CRIMINAL HISTORY FROM JOB APPLICATIONS AND DELAY ASKING ABOUT IT UNTIL A CONDITIONAL JOB OFFER HAS BEEN MADE.

STATES ARE NOW CONSIDERING LAWS PROHIBITING EMPLOYERS FROM ASKING APPLICANTS ABOUT JUVENILE, NON-FELONY CONVICTIONS.
AUTOMATED RESUME PARSING, AI-POWERED ASSESSMENTS AND ALGORITHM-BASED HIRING PLATFORMS HAVE BECOME A POPULAR METHOD FOR SIFTING THROUGH RESUMES AND FOR ELIMINATING BIAS IN THE HIRING PROCESS.

HOWEVER, THE USE OF EMERGING TECHNOLOGIES LIKE AI, MACHINE LEARNING, AND ALGORITHMS FOR SCREENING APPLICANTS IS BEGINNING TO GENERATE MORE SCRUTINY.

BUT AUTOMATED DECISION-MAKING MAY ALSO BE CLOUDED BY BIAS BASED ON THE DESIGN AND INTERPRETATIONS OF THE ALGORITHM.

SOME STATES ARE STARTING TO PASS LAWS PROVIDING RIGHTS TO APPLICANTS WHERE AI-POWERED ASSESSMENTS ARE USED. E.G., ILLINOIS (EFFECTIVE JAN. 1) “ARTIFICIAL INTELLIGENCE VIDEO INTERVIEW ACT”.

- THE LAW PROVIDES RIGHTS TO JOB APPLICANTS IF AI WILL BE USED TO ANALYZE THEIR VIDEO INTERVIEW.

CONGRESS IS ALSO BEGINNING TO CONSIDER THE ISSUE (U.S. HOUSE EDUCATION AND LABOR COMMITTEE).
TOPIC #2: COVID-19 & WORKPLACE WELL-BEING

- Developing a Return-to-Work Plan
- Hiring During COVID-19
- Employee Rights to Leaves of Absence
THE GOAL IS REDUCTION OF EMPLOYEE EXPOSURE

(1) CLEANING & SANITIZING THE WORKPLACE.
- PROVIDE SANITIZERS, FREQUENTLY WIPING DOWN COUNTERS, DOORKNOBS, ELEVATOR BUTTONS, ETC.
- FOG THE WORK AREA AFTER HOURS.
THE GOAL IS REDUCTION OF EMPLOYEE EXPOSURE

(2) ENFORCE SOCIAL DISTANCING & HYGIENE.

- PROVIDE HAND SANITIZERS, PAPER GOODS, SANITIZING WIPES, BOTTLED WATER, FACE MASKS, GLOVES, TISSUES, SOAP, TRASH RECEPTACLES, ETC.

- REQUIRE EMPLOYEES WHO TEST POSITIVE OR ARE SYMPTOMATIC TO REMAIN HOME.

- POST REMINDERS IN COMMON AREAS, E.G., BATHROOM, BREAKROOM, ELEVATORS, COPY MACHINES, AND CENTRAL DOORS.

- ALLOW EMPLOYEES TO TELEWORK WHEN POSSIBLE.

- LIMIT BUSINESS TRAVEL.

- MAXIMUM RESTROOM CAPACITIES .

- LIMIT IN-PERSON MEETINGS, DINING AREAS, EVENTS, AND OTHER SOCIAL GATHERINGS.

- STAGGER WORK TIME OR SCHEDULES TO LIMIT CONTACT AMONG EMPLOYEES.

- RESTRICT NON-EMPLOYEE VISITORS WHEN POSSIBLE.

- INCREASE SPACE BETWEEN DESKS, CUBICLES AND OTHER WORKPLACES.

DEVELOPING A RETURN TO WORK PLAN
THE GOAL IS REDUCTION OF EMPLOYEE EXPOSURE

(3) ENFORCE SOCIAL DISTANCING & HYGIENE

- Marking off six feet waiting distances.
- Stagger meal and rest breaks.
- Installing partitions or shield where there is public interaction.
- Review current ventilation.
- Train staff on safety protocols.
- Close off common spaces where employees or others are likely to congregate, e.g. break room, water cooler, media room, etc.
THE GOAL IS REDUCTION OF EMPLOYEE EXPOSURE

(4) SCREENING EMPLOYEES & VISITORS

- HAVE AN ACTION PLAN FOR EMPLOYEES WHO TEST POSITIVE/PRESUMPTIVE POSITIVE COVID-19, E.G., CONTACT TRACING, TESTING, SEND HOME.

- TEMPERATURE CHECKS.

- SCREENING QUESTIONS: EMPLOYERS HAVE LEEWAY TO MAKE CERTAIN MEDICAL INQUIRIES OTHERWISE PROHIBITED BY THE ADA:

  (A) HAVE YOU OR HAS ANYONE IN YOUR HOUSEHOLD EXPERIENCED ANY COVID-19 SYMPTOMS IN THE LAST 14 DAYS?
  (B) HAVE YOU BEEN SYMPTOM-FREE FOR AT LEAST THREE DAYS?
  (C) HAVE YOU BEEN EXPOSED TO ANYONE WITH A CONFIRMED CASE OF COVID-19?
THE GOAL IS REDUCTION OF EMPLOYEE EXPOSURE

(5) SCREENING EMPLOYEES & VISITORS

- WHEN CAN YOU REQUIRE A TEST:

(A) DIRECT THREAT & JOB IMPAIRMENT: THE EMPLOYER REASONABLY AND OBJECTIVELY BELIEVES THAT AN EMPLOYEE’S CURRENT MEDICAL CONDITION EITHER IMPAIRS THE EMPLOYEE’S ABILITY TO PERFORM ESSENTIAL JOB FUNCTIONS OR POSES A DIRECT THREAT TO THE HEALTH OR SAFETY OF THE EMPLOYEE OR OTHERS.

(B) EEOC HAS HELD THAT SUCH CIRCUMSTANCES SATISFY THE ADA’S REQUIREMENT THAT ANY MANDATORY MEDICAL TEST OF EMPLOYEES BE “JOB RELATED AND CONSISTENT WITH BUSINESS NECESSITY”.

(C) ADA STANDARDS REQUIRE THE TEST TO BE ACCURATE AND RELIABLE. CONSULT CDC AND U.S. FDA GUIDANCE.
HIRING DURING COVID-19

SCREENING FOR COVID-19 PERMITTED AS A CONDITION OF EMPLOYMENT.

DELAYING THE START-DATE OF AN EMPLOYEE WHO HAS COVID-19 OR SYMPTOMS ASSOCIATED WITH THE DISEASE.

WITHHOLDING/WITHDRAWING OFFER FOR AN APPLICANT WHO EXHIBITS COVID-19 SYMPTOMS IS PERMISSIBLE UNDER THE ADA IF THE HIRING NEED IS IMMEDIATE.
EMERGENCY PAID SICK LEAVE

UNDER THE FAMILIES FIRST CORONAVIRUS RESPONSE ACT (FFCRA), PRIVATE AND GOVERNMENTAL EMPLOYERS WITH FEWER THAN 500 EMPLOYEES MUST PROVIDE UP TO 10 DAYS (80 HOURS) OF PAID SICK LEAVE RELATED TO COVID-19.

NOTE: NEW YORK, CALIFORNIA, AND OTHER LOCAL GOVERNMENTS HAVE ADDED ADDITIONAL LEAVE REQUIREMENTS.

ELIGIBILITY

AT LEAST 30-DAY EMPLOYMENT.

BASED ON ONE OF THE FOLLOWING COVID-19 RELATED REASONS:

- FEDERAL, STATE, OR LOCAL QUARANTINE;
- SELF-QUARANTINE AT THE ADVICE OF A HEALTH CARE PROVIDER;
- OBTAINING A MEDICAL DIAGNOSIS IF EXPERIENCING SYMPTOMS;
- CARING FOR A SICK INDIVIDUAL WHO IS SUBJECT TO FEDERAL, STATE, OR LOCAL QUARANTINE OR IS SELF-QUARANTINED AT THE ADVICE OF A HEALTH CARE PROVIDER;
- CARING FOR A CHILD WHOSE SCHOOL OR CHILDCARE FACILITY HAS BEEN CLOSED OR WHOSE CHILDCARE PROVIDER IS UNAVAILABLE;
- EXPERIENCING ANY OTHER "SUBSTANTIALLY SIMILAR" CONDITION SPECIFIED BY THE SECRETARY OF HEALTH AND HUMAN SERVICES.

PAY CAP:

FOR THE FIRST THREE REASONS, PAY IS CAPPED AT $511 /DAY ($5,100 AGGREGATE). FOR THE REMAINING REASONS, PAY IS CAPPED AT $200/DAY ($2,000 AGGREGATE).
EMERGENCY FMLA

THE FFCRA ALSO AMENDS THE FAMILY MEDICAL LEAVE ACT (FMLA) TO ALLOW ELIGIBLE EMPLOYEES TO TAKE UP TO **12 WEEKS/ YEAR** OF JOB-PROTECTED LEAVE TO CARE FOR A CHILD YOUNGER THAN 18 WHOSE SCHOOL IS CLOSED OR WHOSE CHILDCARE PROVIDER IS UNAVAILABLE.

- EFMLA LEAVE IS UNPAID FOR THE FIRST **10 DAYS**, AND THEN IS PAID AT 2/3 THE EMPLOYEE'S NORMAL RATE OF PAY, CAPPED **AT $200/DAY AND $10,000 AGGREGATE**

- THE FFCRA PROVIDES A TOTAL OF **12 WEEKS LEAVE**. NO COMBINING FMLA FFCRA.

- BUT…. AN EMPLOYER CAN ALLOW AN EMPLOYEE TO USE OTHER SICK LEAVE, VACATION TIME, OR PTO TO PROVIDE ADDITIONAL LEAVE.

FFCRA EXPIRES ON **12/31/2020**.
OTHER COVID-19 HR ISSUES

PREVENT WORKPLACE HARASSMENT/DISCRIMINATION BASED ON COVID-19 DIAGNOSIS OR PAST ILLNESS, E.G., NO RESTRICTING MOVEMENT, NO JOKES ("CORONA CONNIE"), ETC.

- ADOPT ZERO-TOLERANCE POLICY.

NO RETALIATION/ADVERSE ACTION - E.G., NO DISCIPLINARY ACTION, TERMINATION, MANDATING WORK WHILE SICK, WITHDRAWING BENEFITS, ETC.

PRESERVE PRIVACY: NEED-TO-KNOW BASIS FOR SUPERVISORS/MANAGERS.

- EMPLOYEE WHO REFUSES TO RETURN TO WORK? - IMMUNE COMPROMISED? IMMINENT DANGER? OR NERVOUS NELLIE?
- WHAT ABOUT PRE-EXISTING MENTAL ILLNESS EXACERBATED BY THE PANDEMIC?
- CHILDCARE ISSUES? (ONLY 12 WKS UNDER FFCRA)

STORING MEDICAL EXAMINATION RESULTS.

- STORE SEPARATELY FROM EMPLOYEE'S PERSONNEL FILE AND PROPERLY SECURE, E.G., COVID-19 TEST RESULTS, TEMPERATURE CHECKS, ANTIBODY RESULTS, ETC.
TOPIC #3: MEDICAL MARIJUANA

MEDICAL MARIJUANA IN GENERAL TRENDS
CURRENTLY, **33 STATES AND THE DISTRICT OF COLOMBIA** PERMIT THE USE OF MEDICAL MARIJUANA LAWS FOR TREATMENT OF SERIOUS MEDICAL CONDITIONS.

**ALMOST \( \frac{1}{2} \) OF THOSE STATES** PROVIDE EXPLICIT EMPLOYMENT PROTECTIONS.

BUT… LEGALIZATION OF MEDICAL MARIJUANA DOESN’T MEAN THAT IT’S ALLOWED IN THE EMPLOYMENT CONTEXT.

**CONFLICT BETWEEN STATE AND FEDERAL LAW:**

- MARIJUANA STILL CONSIDERED A SCHEDULE 1 SUBSTANCE UNDER THE CONTROLLED SUBSTANCES ACT.

- UNDER THE ADA, THE TERM “INDIVIDUAL WITH A DISABILITY” DOES NOT INCLUDE AN INDIVIDUAL WHO IS CURRENTLY ENGAGING IN THE ILLEGAL USE OF DRUGS, WHEN EMPLOYER ACTS ON THE BASIS OF SUCH USE.
GENERAL RULE (FOR STATES THAT HAVE ADOPTED LAWS):

As long as the employee is not bringing his or her medical marijuana to work, or working in a job where impairment may result in serious harm to others and isn’t working in a federally-related job, the employer cannot take medical cannabis use or positive drug test results into consideration when making hiring and firing decisions.

MOST STATES allow employers to terminate employees who show up for work under the influence of marijuana— even if they need it to treat a medical condition.

However, about 20 STATES PROHIBIT employers from discriminating against medical marijuana cardholders or from firing employees for testing positive for marijuana DUE TO OFF-DUTY USE.
Most states do not require any special workplace accommodations for medical cannabis patients and leave policies relating to cannabis use and subsequent disciplinary actions up to individual employers.

**Nevada** deviates from the trend and has adopted an accommodation law, e.g., allowing an employee to start work later in the day due to the need for medical marijuana to treat glaucoma or Crohn’s disease.

Still, other states explicitly allow employers to fire employees for off-duty medical marijuana use.

Other states have not even addressed the issue.

Recently, more states have legalized marijuana for recreational purposes, but most allow employers to enforce zero-tolerance drug policies and fire employees for off-duty use.

- Only one state so far, **Maine**, protects off-duty recreational marijuana use.
DEVELOPING TRENDS-

COMPLETE LEGALIZATION FOR MEDICAL USE

GENERAL DECRIMINALIZATION

OUTLAWING EMPLOYMENT DISCRIMINATION AGAINST MEDICAL CANNABIS PATIENTS

EXPUNGEMENT/SEALING OF RECORDS

- FOR MINOR OFFENSES, E.G., AK, IL, NJ, CA, & NY HAVE SOME LEVEL OF EXPUNGEMENT/SEALING FOR MINOR OFFENSES.

ACCOMMODATION ALLOWING USE OF MEDICAL MARIJUANA

- USE THE ADA INTERACTIVE PROCESS TO ADDRESS OFF-DUTY USE.

- ARE THERE OTHER ALTERNATIVES TO MARIJUANA USE?

- POSSIBLE ACCOMMODATIONS: FLEXIBLE REPORTING SCHEDULES. SAFETY RISKS?

- EVALUATE YOUR DRUG-FREE WORKPLACE AND DRUG TESTING POLICIES.

- CAN THE EMPLOYER TOLERATE OFF-DUTY USE OF MEDICAL MARIJUANA FOR AN EMPLOYEE WITH A DISABILITY?

- CHECK YOUR CURRENT STATE LAWS.