



---

**The Journal of Robotics,  
Artificial Intelligence & Law**

---

Editor's Note: Machine Learning  
Victoria Prussen Spears

Will "Leaky" Machine Learning Usher in a New Wave of Lawsuits?  
Brian Wm. Higgins

There Is Nothing Either Good or Bad, But Training Sets Make It So  
Glen Meyerowitz

Treasury Report Embraces Machine Learning and Artificial Intelligence in Financial Services  
Pamela L. Marcogliese, Colin D. Lloyd, Sandra M. Rocks, and Lauren Gilbert

**GAO Testimony Before Congress Regarding Emerging Opportunities, Challenges, and Implications for Policy and Research with Artificial Intelligence**  
Susan B. Cassidy and Calvin Cohen

Artificial Intelligence: A Grayish Area for Insurance Coverage  
Ashley E. Cowgill

The Connected Home: From Smart Fish Tanks to Connected Kitchen Appliances, Product Companies Must Navigate GDPR and Product Liability Directive Compliance, Cyber Risk, and Other IoT Challenges  
Valerie Kenyon and Anthea Davies

Landmarks: The Spring Shotgun Case, and What It Tells Us About Security Robots  
Steven A. Meyerowitz

Everything Is Not *Terminator*: Public-Facing Artificial Intelligence Policies—Part I  
John Frank Weaver

- 5 Editor’s Note: Machine Learning**  
Victoria Prussen Spears
- 9 Will “Leaky” Machine Learning Usher in a New Wave of Lawsuits?**  
Brian Wm. Higgins
- 17 There Is Nothing Either Good or Bad, But Training Sets Make It So**  
Glen Meyerowitz
- 25 Treasury Report Embraces Machine Learning and Artificial Intelligence in Financial Services**  
Pamela L. Marcogliese, Colin D. Lloyd, Sandra M. Rocks, and Lauren Gilbert
- 31 GAO Testimony Before Congress Regarding Emerging Opportunities, Challenges, and Implications for Policy and Research with Artificial Intelligence**  
Susan B. Cassidy and Calvin Cohen
- 35 Artificial Intelligence: A Grayish Area for Insurance Coverage**  
Ashley E. Cowgill
- 39 The Connected Home: From Smart Fish Tanks to Connected Kitchen Appliances, Product Companies Must Navigate GDPR and Product Liability Directive Compliance, Cyber Risk, and Other IoT Challenges**  
Valerie Kenyon and Anthea Davies
- 45 Landmarks: The Spring Shotgun Case, and What It Tells Us About Security Robots**  
Steven A. Meyerowitz
- 59 Everything Is Not *Terminator*: Public-Facing Artificial Intelligence Policies—Part I**  
John Frank Weaver

**EDITOR-IN-CHIEF**

**Steven A. Meyerowitz**

*President, Meyerowitz Communications Inc.*

**EDITOR**

**Victoria Prussen Spears**

*Senior Vice President, Meyerowitz Communications Inc.*

**BOARD OF EDITORS**

**Miranda Cole**

*Partner, Covington & Burling LLP*

**Kathryn DeBord**

*Partner & Chief Innovation Officer, Bryan Cave LLP*

**Melody Drummond Hansen**

*Partner, O'Melveny & Myers LLP*

**Paul Keller**

*Partner, Norton Rose Fulbright US LLP*

**Garry G. Mathiason**

*Shareholder, Littler Mendelson P.C.*

**Elaine D. Solomon**

*Partner, Blank Rome LLP*

**Linda J. Thayer**

*Partner, Finnegan, Henderson, Farabow, Garrett & Dunner LLP*

**Mercedes K. Tunstall**

*Partner, Pillsbury Winthrop Shaw Pittman LLP*

**Edward J. Walters**

*Chief Executive Officer, Fastcase Inc.*

**John Frank Weaver**

*Attorney, McLane Middleton, Professional Association*

THE JOURNAL OF ROBOTICS, ARTIFICIAL INTELLIGENCE & LAW (ISSN 2575-5633 (print) /ISSN 2575-5617 (online) at \$495.00 annually is published six times per year by Full Court Press, a Fastcase, Inc., imprint. Copyright 2019 Fastcase, Inc. No part of this journal may be reproduced in any form—by microfilm, xerography, or otherwise—or incorporated into any information retrieval system without the written permission of the copyright owner. For customer support, please contact Fastcase, Inc., 711 D St. NW, Suite 200, Washington, D.C. 20004, 202.999.4777 (phone), 202.521.3462 (fax), or email customer service at [support@fastcase.com](mailto:support@fastcase.com).

Publishing Staff

Publisher: Morgan Morrisette Wright

Journal Designer: Sharon D. Ray

Cover Art Design: Juan Bustamante

Cite this publication as:

The Journal of Robotics, Artificial Intelligence & Law (Fastcase)

This publication is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional services. If legal advice or other expert assistance is required, the services of a competent professional should be sought.

Copyright © 2019 Full Court Press, an imprint of Fastcase, Inc.

All Rights Reserved.

A Full Court Press, Fastcase, Inc., Publication

Editorial Office

711 D St. NW, Suite 200, Washington, D.C. 20004

<https://www.fastcase.com/>

POSTMASTER: Send address changes to THE JOURNAL OF ROBOTICS, ARTIFICIAL INTELLIGENCE & LAW, 711 D St. NW, Suite 200, Washington, D.C. 20004.

## Articles and Submissions

Direct editorial inquires and send material for publication to:

Steven A. Meyerowitz, Editor-in-Chief, Meyerowitz Communications Inc.,  
26910 Grand Central Parkway, #18R, Floral Park, NY 11005, smeyerowitz@  
meyerowitzcommunications.com, 646.539.8300.

Material for publication is welcomed—articles, decisions, or other items of interest to attorneys and law firms, in-house counsel, corporate compliance officers, government agencies and their counsel, senior business executives, scientists, engineers, and anyone interested in the law governing artificial intelligence and robotics. This publication is designed to be accurate and authoritative, but neither the publisher nor the authors are rendering legal, accounting, or other professional services in this publication. If legal or other expert advice is desired, retain the services of an appropriate professional. The articles and columns reflect only the present considerations and views of the authors and do not necessarily reflect those of the firms or organizations with which they are affiliated, any of the former or present clients of the authors or their firms or organizations, or the editors or publisher.

### QUESTIONS ABOUT THIS PUBLICATION?

For questions about the Editorial Content appearing in these volumes or reprint permission, please call:

Morgan Morrisette Wright, Publisher, Full Court Press at mwright@fastcase.com  
or at 202.999.4878

For questions or Sales and Customer Service:

Customer Service  
Available 8am–8pm Eastern Time  
866.773.2782 (phone)  
support@fastcase.com (email)

Sales  
202.999.4777 (phone)  
sales@fastcase.com (email)  
ISSN 2575-5633 (print)  
ISSN 2575-5617 (online)

# GAO Testimony Before Congress Regarding Emerging Opportunities, Challenges, and Implications for Policy and Research with Artificial Intelligence

Susan B. Cassidy and Calvin Cohen\*

*In recent testimony before the House of Representatives' Subcommittees on Research and Technology and Energy, Committee on Science, Space, and Technology, Timothy M. Persons, GAO Chief Scientist Applied Research and Methods, discussed artificial intelligence. The authors of this article discuss Persons' statement on these AI issues: how AI has evolved over time; the opportunities and future promise of AI, as well as its principal challenges and risks; and the policy implications and research priorities resulting from advances in AI.*

Timothy M. Persons, Government Accountability Office (“GAO”) Chief Scientist Applied Research and Methods, recently provided testimony<sup>1</sup> on artificial intelligence (“AI”) before the House of Representatives’ Subcommittees on Research and Technology and Energy, Committee on Science, Space, and Technology. Specifically, his testimony summarized a prior GAO technological assessment on AI<sup>2</sup> from March 2018. Persons’ statement addressed three areas: (1) AI has evolved over time; (2) the opportunities and future promise of AI, as well as its principal challenges and risks; and (3) the policy implications and research priorities resulting from advances in AI. This statement by a GAO official is instructive for how the government is thinking about the future of AI, and how government contractors can, too.

## The Evolution and Characteristics of AI

Persons stated that AI can be defined as either “narrow,” meaning “applications that provide domain-specific expertise or task

completion,” or “general,” meaning an “application that exhibits intelligence comparable to a human, or beyond.” Although AI has evolved since the 1950s, Persons cited today’s “increased data availability, storage, and processing power” as explanations for why AI occupies such a central role in today’s discourse. And while we see many instances of narrow AI, general AI is still in its formative stages.

Persons described “three waves” of AI. The first wave is characterized by “expert knowledge or criteria developed in law or other authoritative sources and encoded into a computer algorithm,” such as tax preparation services. The second wave is characterized by machine learning and perception, and includes many technologies recognizable today such as voice-activated digital assistants and self-driving cars. The third wave is characterized by “the strengths of first- and second-wave AI . . . capable of contextual sophistication, abstraction, and explanation”; an example cited in his testimony was a ship navigating the seas without human intervention. This third wave is just in its beginning stages.

## Benefits of Artificial Intelligence and Challenges to Its Development

---

In his testimony, Persons summarized a number of benefits from the increased prevalence of AI, including “improved economic outcomes and increased levels of productivity” for workers and companies, “improved or augmented human decision making” through AI’s faster processing of greater quantities of data, and even providing “insights into complex and pressing problems.” However, a number of challenges to further developing AI technology, such as the “barriers to collecting and sharing data” that researchers and manufacturers face, the “lack of access to adequate computing resources and requisite human capital” for AI researchers, the inadequacy of current laws and regulations to address AI, and the need for an “ethical framework for and explainability and acceptance of AI.”

In its report, the GAO identified “four high-consequence sectors” for the further development of AI:

- cybersecurity;
- automated vehicles;

- criminal justice; and
- financial services.

In each of these sectors, AI may be used as a valuable tool that could enhance that specific industry's capabilities, but AI also presents concerns in that given industry, such as to safety, fairness, and civil rights, among other areas.

## Policy Considerations to AI and Areas Requiring More Research

---

Relying on the GAO report and the views of subject matter experts, Persons' testimony highlights a number of policy considerations and areas that require more research to improve AI.

One area is how to "incentiviz[e] data sharing." Persons highlighted that private actors need to better share data while still finding ways to safeguard intellectual property and proprietary information. Similarly, federal agencies can share data that would otherwise not be accessible to researchers. Another area was "improving safety and security," as the costs from cybersecurity breaches are not necessarily borne equally between manufacturers and users.

One of the more significant policy considerations that will accompany increased usage of AI is "updating the regulatory approach." As an example, "the manufacturer of the automated vehicle bears all responsibility for crashes" under the regulatory structure as currently formulated. Persons noted that regulators may need "to be proactive" in areas like this to "improve overall public safety." Relatedly, laws may have to adapt or evolve to allocate liability more appropriately, as "humans may not always be behind decisions that are made by automated systems." Without appropriate regulatory guidance, who bears responsibility for problems caused by AI remains unclear. There is also a possibility for "establishing regulatory sandboxes," which would enable regulators "to begin experimenting on a small scale and empirically test[] new ideas."

Finally, Persons highlighted the importance of understanding "AI's effects on employment and reimagining training and education." The data on this subject is currently incomplete, but Persons stated that it is believed job losses and gains will be sector specific. With the increased prevalence of AI will also come the need to



“reevaluate and reimagine training and education” to offset any possible job losses.

## Notes

---

\* Susan B. Cassidy is a partner at Covington & Burling LLP, advising clients on the rules and regulations imposed on government contractors, with a special emphasis on the defense and intelligence sectors. Calvin Cohen is an associate in the firm’s Government Contracts and Data Privacy and Cyber Security practice groups. The authors may be reached at [scassidy@cov.com](mailto:scassidy@cov.com) and [ccohen@cov.com](mailto:ccohen@cov.com), respectively.

1. <https://www.gao.gov/assets/700/692793.pdf>.
2. <https://www.gao.gov/products/GAO-18-142SP>.