

KI in der anwaltlichen Mandatsbearbeitung

Dirk Hartung

Ringvorlesung, Passau, Januar 2024

Intro



**Dirk
Hartung**

**Bucerius Law
School**

**Stanford
Codex**

Series of digitalization studies



Regulatorisches Umfeld



Digitale Rechtsdienstleistung

KOMPLEXITÄT UND ANWALTSCHAFT

LAW + TECH

Die Bewältigung **steigender juristischer Komplexität** gelingt nur, wenn alle Akteure – Anwälte, alternative Rechtsdienstleister, Legal Technology-Unternehmen und Softwareanbieter – zusammenarbeiten.

Verbraucher profitieren von einem fairen Wettbewerb in der Rechtsberatung, Unternehmen von größerer Vorhersehbarkeit und einfacherer Bilanzierung juristischer Risiken.

- Rechtssichere, eindeutige **Beratungs-befugnis**
- Wettbewerbsfähige, risikoabhängige **Vergütung**
- Moderne, inter-professionelle **Sozietäten**
- Flexible, freie **Kapital-beteiligungen**
- Einfaches, sicheres **Outsourcing**

Zeitlich begrenzte **Regulatory Sandboxes** fördern Innovation und ermöglichen gleichzeitig die Sammlung wichtiger Daten.



CODEX
The Stanford Center for Legal Informatics

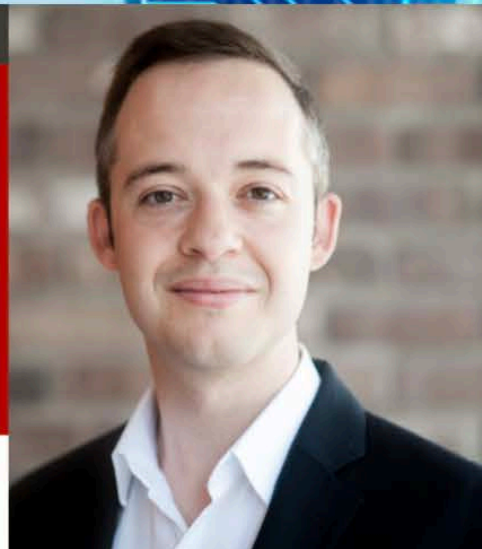
Legal Complexity Science

Social, economic and political complexity have manifested in increasing levels of legal complexity. While legal systems have to find ways to handle this increase, technology and data science can help further the understanding of their performance and provide them with much-needed tools.

The legal data science project follows a quantitative approach in the analysis of law. Its activities fall into three categories: the creation of data sets, their analysis and the communication and application of their results. The theoretical foundation is provided by complexity science, as the legal system is understood as a complex adaptive system (CAS). As such, its properties can be measured with methods from computer science, physics and mathematics, such as network science, text analytics and data mining. Developing these methods and applying them to various datasets is at the core of the project's activities. However, many of these datasets need to be built, enriched, documented and open-sourced before any analysis can be conducted. As a last step, the resulting research needs to be communicated to other quantitative and normative legal scholars and turned into actionable steps for policymakers and practitioners.

The goal of this project is an enhanced and robust understanding of the legal system and its dynamics. This is achieved through publications in interdisciplinary, peer-reviewed general scientific journals and presentations at both research and practitioner conferences.

RELATED ORGANIZATION
CodeX



Dirk Hartung

CodeX Non-Residential Fellow

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Daniel Katz

CodeX Affiliated Faculty

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Michael Bommarito

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The descriptions of current and past projects of CodeX non-residential fellows are provided to illustrate the kind of work our non-residential fellows are carrying out. These projects are listed here for informational purposes only and are not endorsed by CodeX, Stanford Law School, or Stanford University.



**Text-based
learning for
law.**

The screenshot shows the homepage of the dskrpt website. At the top, there is a navigation bar with the site name "dskrpt" and a "BETA" badge, followed by links for "Für Lehrende", "Für Studierende", "Nutzerstimmen", and "Bibliothek". On the right side of the navigation bar are "Login" and "Registrieren" buttons. The main heading is "Das digitale Vorlesungsskript". Below this, there are three paragraphs of text describing the platform's purpose and current status. A "Kontaktieren Sie uns" button is located below the text. To the right of the text, there is a visual representation of the platform's interface on both a smartphone and a desktop computer. The smartphone screen shows a list of lecture notes with a highlighted section. The desktop screen shows a detailed view of a lecture note with a search bar and a list of items. At the bottom of the screenshot, there is a blue box with the heading "Unsere Vision" and three columns of text describing the platform's goals: "Digitales Lernen", "Digitale Lehre", and "Guided Reading".

dskrpt BETA

Für Lehrende Für Studierende Nutzerstimmen Bibliothek

Login Registrieren

Das digitale Vorlesungsskript

Dskrpt ist eine Plattform, auf der Lehrende ihre Vorlesungsmaterialien erstellen und Studierende diese gemeinsam lesen, diskutieren und lernen können.

Das an der Bucerius Law School beheimatete Projekt befindet sich momentan in einer geschlossenen Beta mit ausgewählten Hochschulen.

Wenn Sie mehr erfahren möchten, kontaktieren Sie uns gern.

[Kontaktieren Sie uns](#)

Unsere Vision

Digitales Lernen	Digitale Lehre
Alle Skripten, Normen und Urteile auf allen Geräten gleichzeitig und immer verfügbar	Digitale Materialien erstellen, ändern und verwalten ohne zusätzlichen Aufwand
Guided Reading	
Auf persönliche Bedürfnisse und die eigene	

arXiv > cs > arXiv:2212.14402

Search... All fields Search

Help | Advanced Search

Computer Science > Computation and Language

[Submitted on 29 Dec 2022]

GPT Takes the Bar Exam

Michael Bommarito II, Daniel Martin Katz

Nearly all jurisdictions in the United States require a professional license exam, commonly referred to as "the Bar Exam," as a precondition for law practice. To even sit for the exam, most jurisdictions require that an applicant completes at least seven years of post-secondary education, including three years at an accredited law school. In addition, most test-takers also undergo weeks to months of further, exam-specific preparation. Despite this significant investment of time and capital, approximately one in five test-takers still score under the rate required to pass the exam on their first try. In the face of a complex task that requires such depth of knowledge, what, then, should we expect of the state of the art in "AI?" In this research, we document our experimental evaluation of the performance of OpenAI's `text-davinci-003` model, often-referred to as GPT-3.5, on the multistate multiple choice (MBE) section of the exam. While we find no benefit in fine-tuning over GPT-3.5's zero-shot performance at the scale of our training data, we do find that hyperparameter optimization and prompt engineering positively impacted GPT-3.5's zero-shot performance. For best prompt and parameters, GPT-3.5 achieves a headline correct rate of 50.3% on a complete NCBE MBE practice exam, significantly in excess of the 25% baseline guessing rate, and performs at a passing rate for both Evidence and Torts. GPT-3.5's ranking of responses is also highly-correlated with correctness; its top two and top three choices are correct 71% and 88% of the time, respectively, indicating very strong non-entailment performance. While our ability to interpret these results is limited by nascent scientific understanding of LLMs and the proprietary nature of GPT, we believe that these results strongly suggest that an LLM will pass the MBE component of the Bar Exam in the near future.

Comments: Additional material available online at [this https URL](#)

Subjects: **Computation and Language (cs.CL)**; Artificial Intelligence (cs.AI); Machine Learning (cs.LG)

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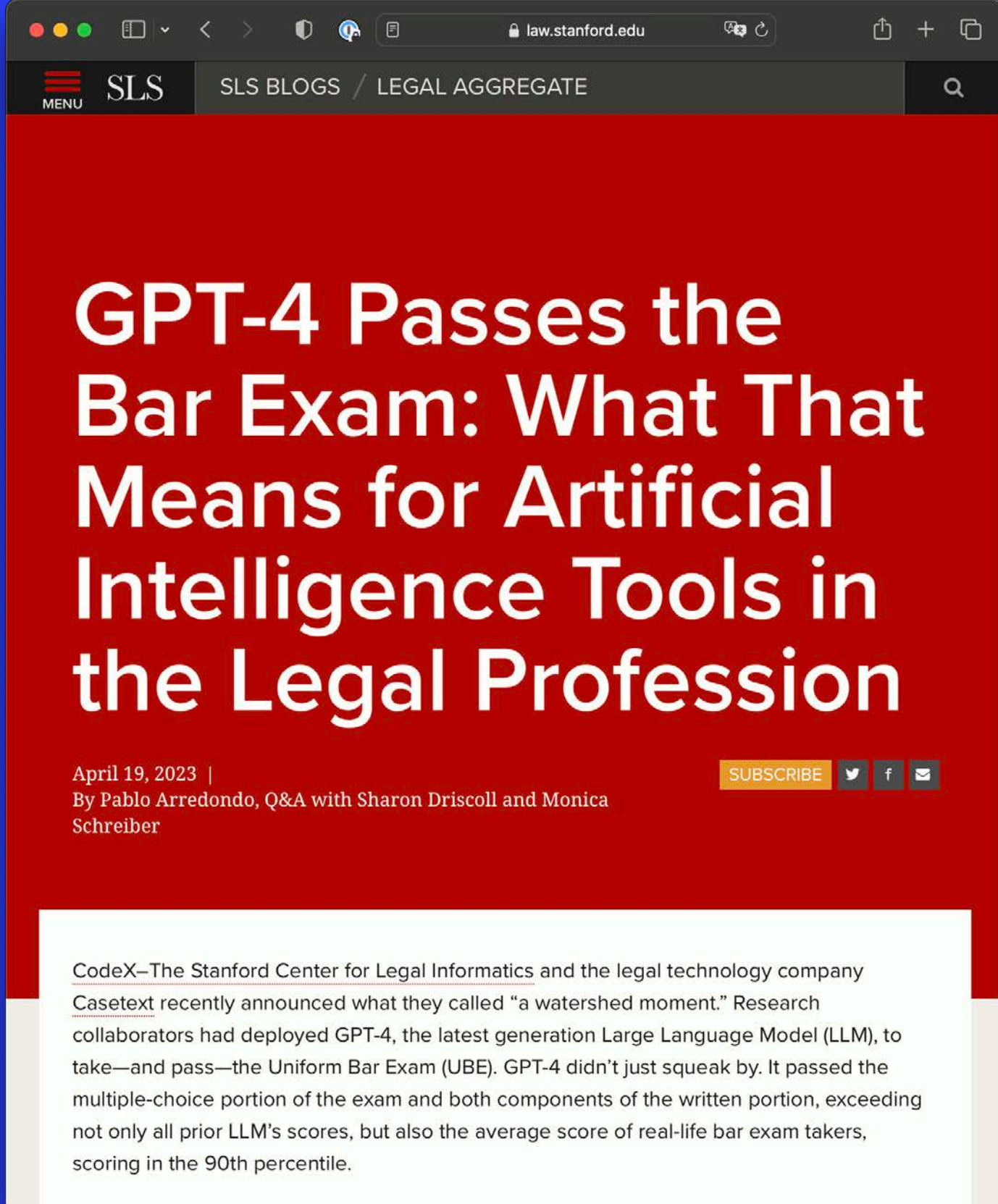
OPENAI AND BUCERIUS CENTER COLLABORATE ON GPT-4 EVALUATION PAPER

In a recent paper Daniel M. Katz and his team demonstrated that OpenAI's latest deep learning model excels in complex legal reasoning.

Research & Faculty | 03/26/2023

GPT-4, the new multimodal deep learning model from OpenAI, has passed the Uniform Bar Exam, demonstrating an enormous leap for machine learning and




In a  nutshell
GPT-4
Passes the
Bar Exam in
top 90%.



law.stanford.edu

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GPT-4 Passes the Bar Exam: What That Means for Artificial Intelligence Tools in the Legal Profession

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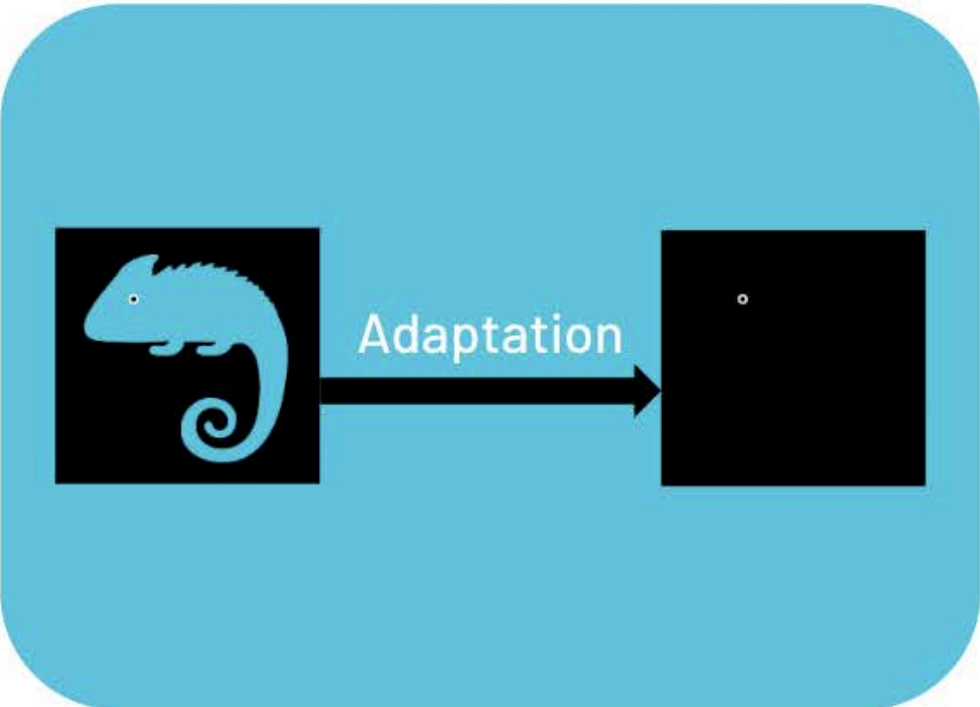
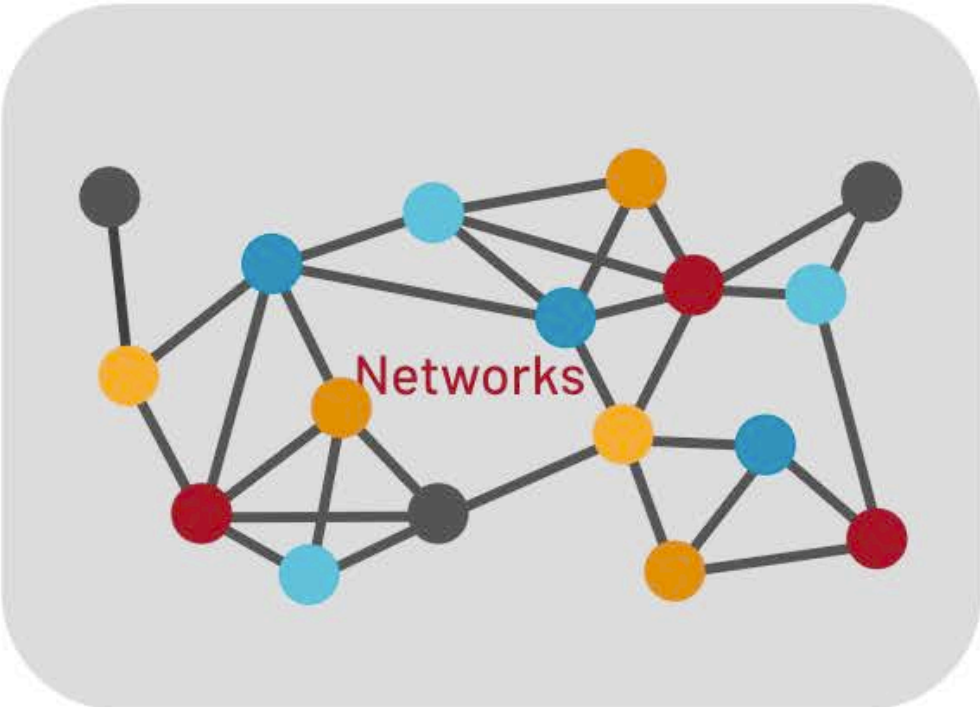
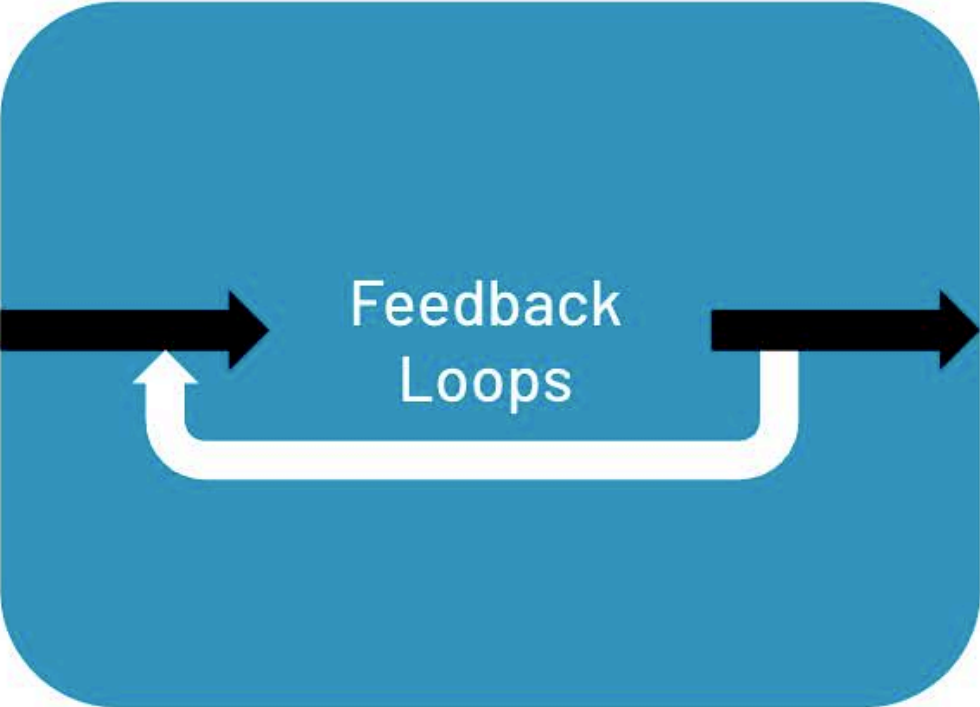
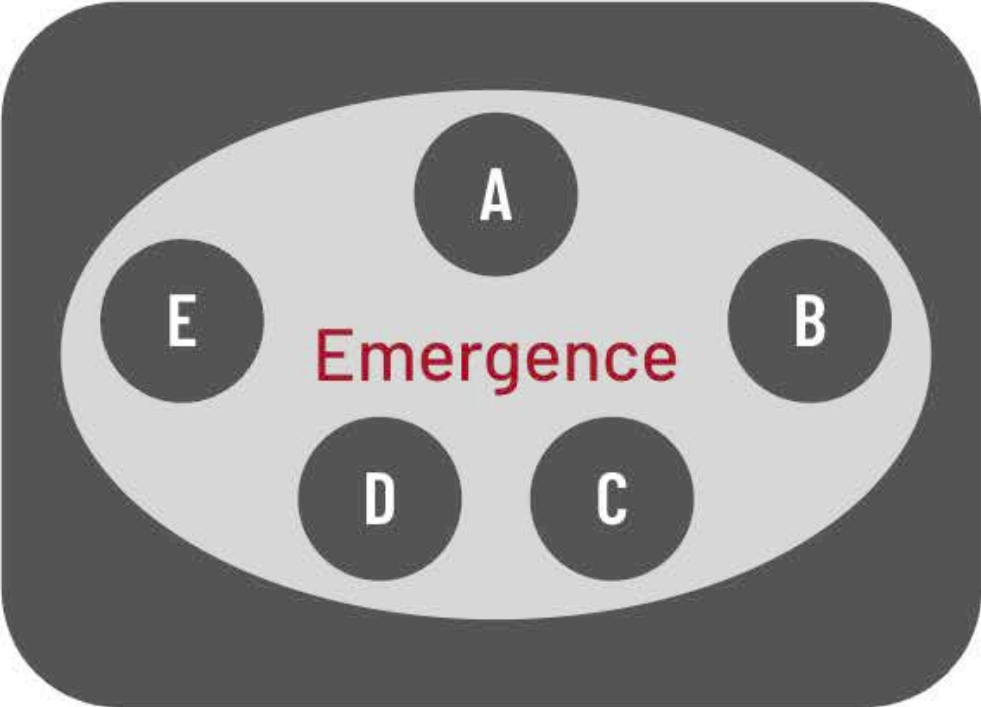
By Pablo Arredondo, Q&A with Sharon Driscoll and Monica Schreiber

CodeX—The Stanford Center for Legal Informatics and the legal technology company Casetext recently announced what they called “a watershed moment.” Research collaborators had deployed GPT-4, the latest generation Large Language Model (LLM), to take—and pass—the Uniform Bar Exam (UBE). GPT-4 didn’t just squeak by. It passed the multiple-choice portion of the exam and both components of the written portion, exceeding not only all prior LLM’s scores, but also the average score of real-life bar exam takers, scoring in the 90th percentile.

Komplexität

Complexity science, also called complex systems science, studies how a large collection of components – locally interacting with each other at small scales – can spontaneously self-organize to exhibit non-trivial global structures and behaviors at larger scales, often without external intervention, central authorities or leaders. The properties of the collection may not be understood or predicted from the full knowledge of its constituents alone. Such a collection is called a complex system and it requires new mathematical frameworks and scientific methodologies for its investigation.

Complex Adaptive Systems



Harnessing legal complexity

Bring tools of complexity science to bear on improving law

By J. B. Ruhl,¹ Daniel Martin Katz,^{2,3}
Michael J. Bommarito II^{2,3}

Complexity science has spread from its origins in the physical sciences into biological and social sciences (1). Increasingly, the social sciences frame policy problems from the financial system to the food system as complex adaptive systems (CAS) and urge policymakers to design legal solutions with CAS properties in mind. What is often poorly recognized in these initiatives is that legal systems are also complex adaptive systems (2). Just as it seems unwise to pursue regulatory measures while ignoring known CAS properties of the systems targeted for regulation, so too might failure to appreciate CAS qualities of legal systems yield policies founded upon unrealistic assumptions. Despite a long empirical studies tradition in law, there has been little use of complexity science. With few robust empirical studies of legal systems as CAS, researchers are left to gesture at seemingly evident assertions, with limited scientific support. We outline a research agenda to help fill this knowledge gap and advance practical applications.

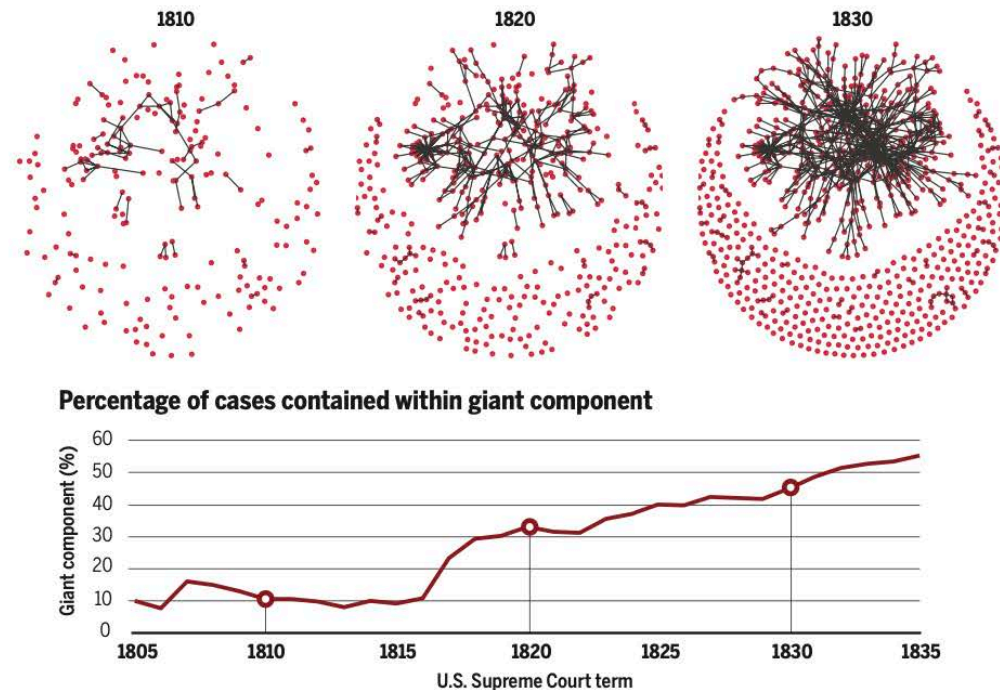
Legal systems exhibit what complexity scientists identify as hallmark elements of CAS (1). The diverse institutions (e.g., legislatures, agencies, and courts); norms (e.g., due process, equality, and fairness); actors (e.g., legislators, bureaucrats, and judges); and instruments (e.g., regulations, injunctions, and taxes) are interconnected through stochastic processes (e.g., trials, negotiations, and rule-makings) with feedback mechanisms (e.g., appeals to higher courts and judicial review of legislation). These are all embedded in hierarchical and nonhierarchical network architectures (e.g., cross-references between statute provisions and judicial opinions, as well as hierarchies of federal, state, and local governance institutions) that frequently produce self-organizing properties

(e.g., emergence of common-law doctrines or codified statutory law). Agents typically exercise bounded rationality, have only partial information, and are able to exercise only varying degrees of control on overall system behavior (2).

Efforts to integrate CAS approaches to regulated systems may flounder if complex adaptive characteristics of the legal system itself are not taken into account. For example,

United States Supreme Court citation network (1805–1835)

Cases are represented as nodes, citations between cases as edges. Emergence of a giant [connected] component after 1815, a hallmark phenomenon in complex systems, represents a transition from jurisprudential reliance on foreign to domestic law following the War of 1812 (4). We include all cases that had been cited at least once over the Court's history (1791–2015). For figure code and data, see <https://github.com/mjbommar/legal-complexity-science>.



although natural-resources policy theorists have advocated for a new field of adaptive management based on an understanding that ecosystems are CAS, agencies, courts, and other components of the legal system have reacted in unexpected ways that can frustrate adaptive management (3).

Legal systems are locked in perpetual co-evolution with their regulatory targets. Co-adaptive dynamics have driven growth in structure and size, punctuated with stages of nonlinear expansion of the U.S. statutory

and judicial systems (4). CAS approaches can allow modeling of interconnections in this system of systems that can be difficult to capture in simple models (1). Minor changes in network structure may lead to cascade effects throughout the systems. By leveraging traditional methods, it is difficult to isolate instability and systemic risk in other social systems from instability and systemic risk in the legal system. Regulatory system failure was a factor in the 2008 financial crisis (5) and the Deepwater Horizon oil spill (6).

THEORY, ANALYSIS, APPLICATION

Application of informatics and big-data-styled research to law offers many potential benefits for conventional empirical legal studies. The CAS framework is neither an

extension of nor a replacement for that approach but a different way of envisioning systems in which agent strategies and system structures evolve, with outcomes standard game theory and equilibrium analyses would not predict (7). Although well behind CAS research in other social sciences, researchers have begun to map CAS concepts onto the legal system (2). Researchers are applying empirical tools of complexity science to understand how to measure, monitor, and manage the legal system as a CAS.

Downloaded from <http://science.sciencemag.org/> on March 30, 2017

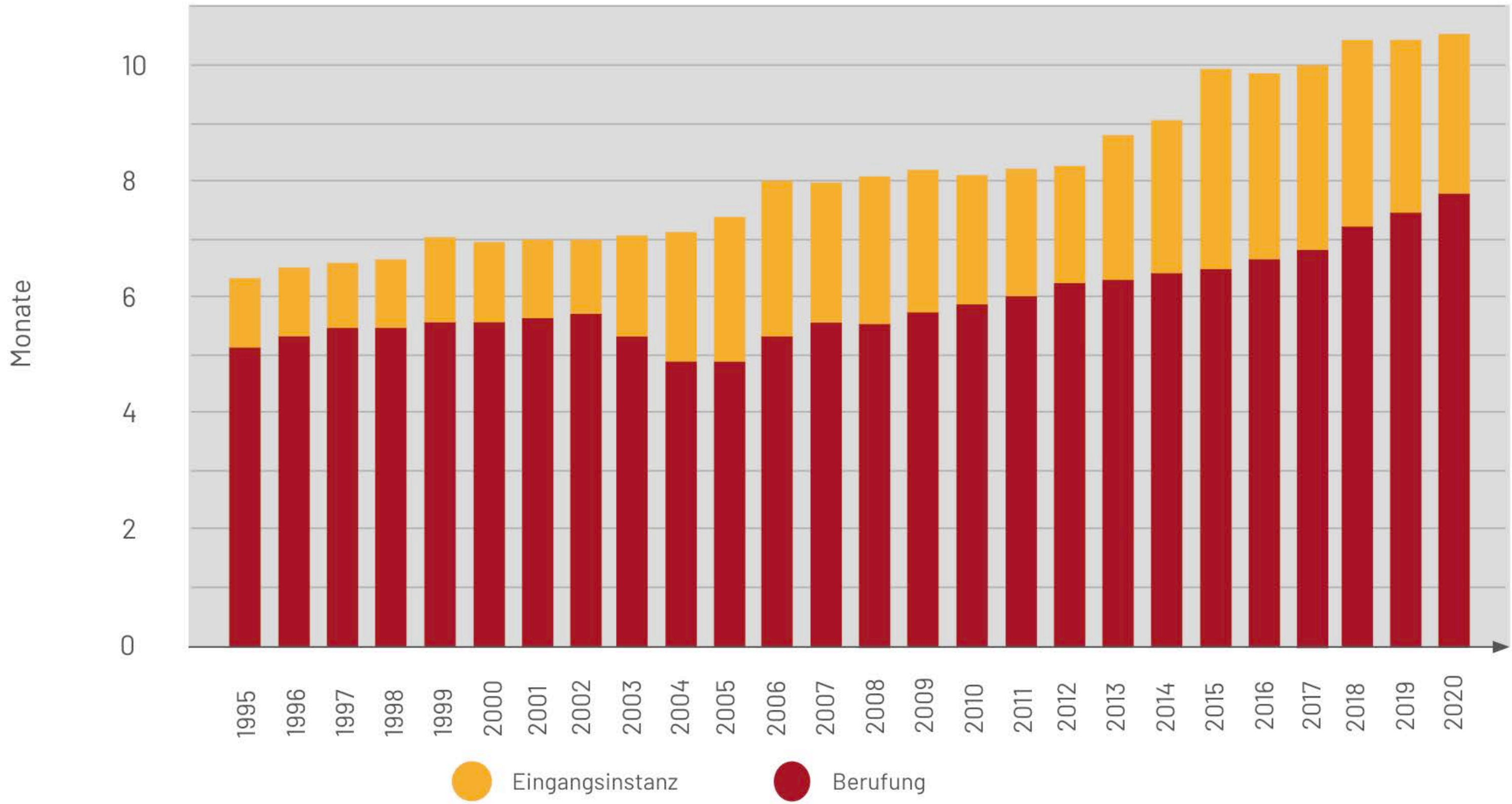
Ruhl, Katz, Bommarito

Science Magazine 2017, 1377

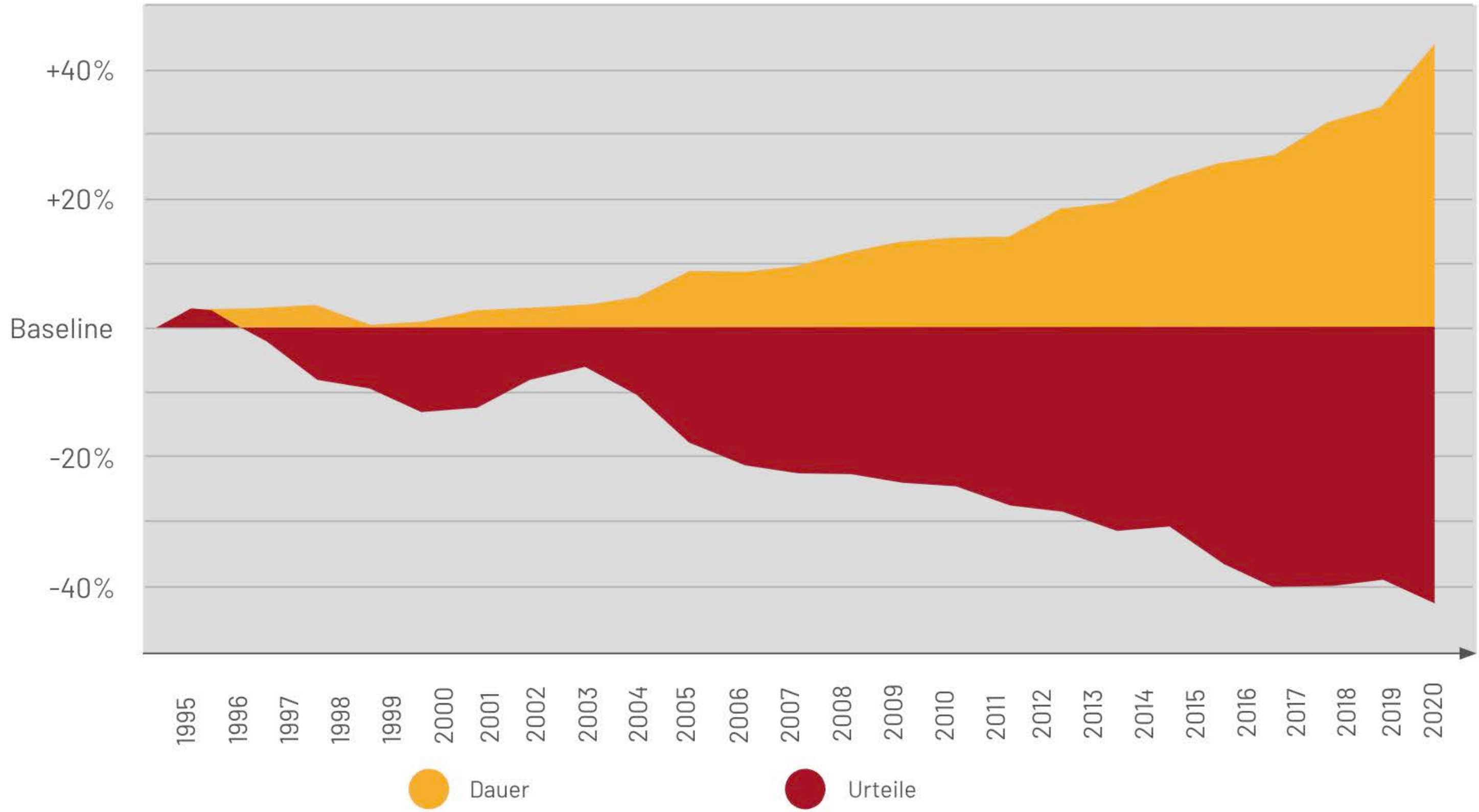
¹Vanderbilt University Law School, Nashville, TN 37203, USA.

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Durchschnittliche Verfahrenslaufzeiten an Landgerichten



Geschäftsentwicklung der Zivilsachen in erster Instanz (AG/LG)



OPEN

Complex societies and the growth of the law

Daniel Martin Katz^{1,2,5✉}, Corinna Coupette³, Janis Beckedorf⁴ & Dirk Hartung^{2,5}

While many informal factors influence how people interact, modern societies rely upon law as a primary mechanism to formally control human behaviour. How legal rules impact societal development depends on the interplay between two types of actors: the people who create the rules and the people to which the rules potentially apply. We hypothesise that an increasingly diverse and interconnected society might create increasingly diverse and interconnected rules, and assert that legal networks provide a useful lens through which to observe the interaction between law and society. To evaluate these propositions, we present a novel and generalizable model of statutory materials as multidimensional, time-evolving document networks. Applying this model to the federal legislation of the United States and Germany, we find impressive expansion in the size and complexity of laws over the past two and a half decades. We investigate the sources of this development using methods from network science and natural language processing. To allow for cross-country comparisons over time, based on the explicit cross-references between legal rules, we algorithmically reorganise the legislative materials of the United States and Germany into cluster families that reflect legal topics. This reorganisation reveals that the main driver behind the growth of the law in both jurisdictions is the expansion of the welfare state, backed by an expansion of the tax state. Hence, our findings highlight the power of document network analysis for understanding the evolution of law and its relationship with society.

Modern societies rely upon law as the primary mechanism to control their development and manage their conflicts. Through carefully designed rights and responsibilities, institutions and procedures, law can enable humans to engage in increasingly complex social and economic activities. Therefore, law plays an important role in understanding how societies change. To explore the interplay between law and society, we need to study how both co-evolve over time. This requires a firm quantitative grasp of the changes occurring in both domains. But while quantifying societal change has been the subject of tremendous research efforts in fields such as sociology, economics, or social physics for many years^{1–6}, much less work has been done to quantify legal change. In fact, legal scholars have traditionally regarded the law as hardly quantifiable, and although there is no dearth of empirical legal studies^{7–9}, it is only recently that researchers have begun to apply data science methods to law^{10–13}. To date, there have been relatively few quantitative works that explicitly address legal change^{14–19}, and almost no scholarship exists that analyses the time-evolving outputs of the legislative and executive branches of national governments at scale. Unlocking these data sources for the interdisciplinary scientific community will be crucial for understanding how law and society interact.

Our work takes a step towards this goal. As a starting point, we hypothesise that an increasingly diverse and interconnected society might create increasingly diverse and interconnected rules. Lawmakers create, modify, and delete legal rules to achieve particular behavioural outcomes, often in an effort to respond to perceived changes in societal needs. While earlier large-scale quantitative work focused on analysing an individual snapshot of laws enacted by national parliaments^{20,21}, collections of snapshots offer a window into the dynamic interaction between law and society. Such collections represent complete, time-evolving populations of statutes at the national level. Hence, no sampling is needed for their analysis, and all changes we observe are direct consequences of legislative activity. This feature makes collections of nation-level statutes particularly suitable for investigating temporal dynamics.

To preserve the intended multidimensionality of legal document collections and explore how they change over time, legislative corpora should be modelled as dynamic document networks^{20–26}. In particular, since legal documents are carefully organised and interlinked, their structure provides a more direct window into their content and dynamics than their language: Networks honour the deliberate design decisions made by the document

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Measuring Law Over Time: A Network Analytical Framework with an Application to Statutes and Regulations in the United States and Germany

Corinna Coupette^{1†}, Janis Beckedorf^{2†}, Dirk Hartung^{3,4*}, Michael Bommarito⁵ and Daniel Martin Katz^{3,4,5}

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and Germany.
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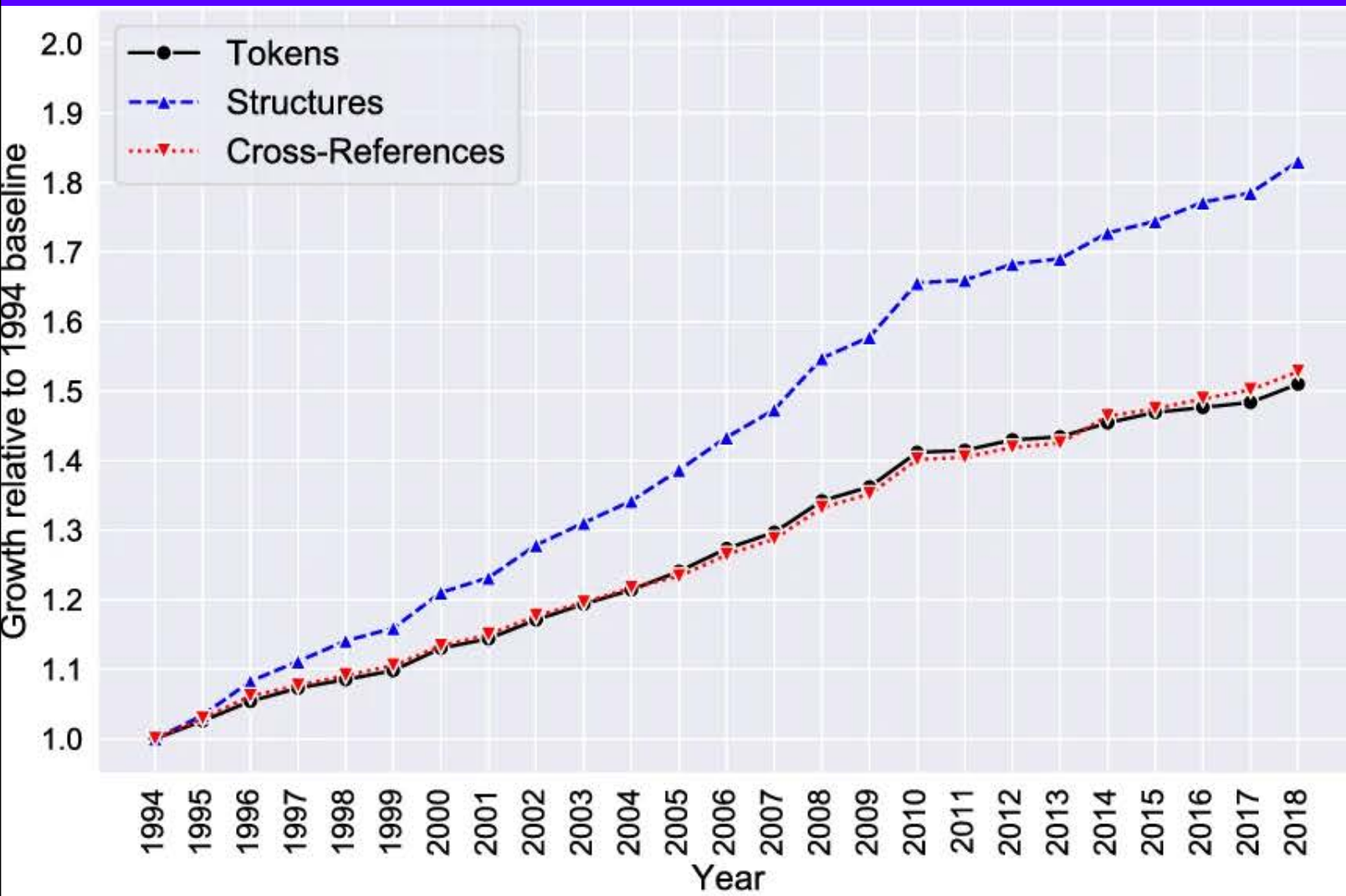
¹Max Planck Institute for Informatics, Saarbrücken, Germany, ²Ruprecht-Karls-Universität Heidelberg, Heidelberg, Germany, ³Center for Legal Technology and Data Science, Bucerius Law School, Hamburg, Germany, ⁴CodeX – the Stanford Center for Legal Informatics, Stanford Law School, Stanford, CA, United States, ⁵Illinois Tech – Chicago Kent College of Law, Chicago, IL, United States

How do complex social systems evolve in the modern world? This question lies at the heart of social physics, and network analysis has proven critical in providing answers to it. In recent years, network analysis has also been used to gain a quantitative understanding of law as a complex adaptive system, but most research has focused on legal documents of a single type, and there exists no unified framework for quantitative legal document analysis using network analytical tools. Against this background, we present a comprehensive framework for analyzing legal documents as multi-dimensional, dynamic document networks. We demonstrate the utility of this framework by applying it to an original dataset of statutes and regulations from two different countries, the United States and Germany, spanning more than twenty years (1998–2019). Our framework provides tools for assessing the size and connectivity of the legal system as viewed through the lens of specific document collections as well as for tracking the evolution of individual legal documents over time. Implementing the framework for our dataset, we find that at the federal level, the United States legal system is increasingly dominated by regulations, whereas the German legal system remains governed by statutes. This holds regardless of whether we measure the systems at the macro, the meso, or the micro level.

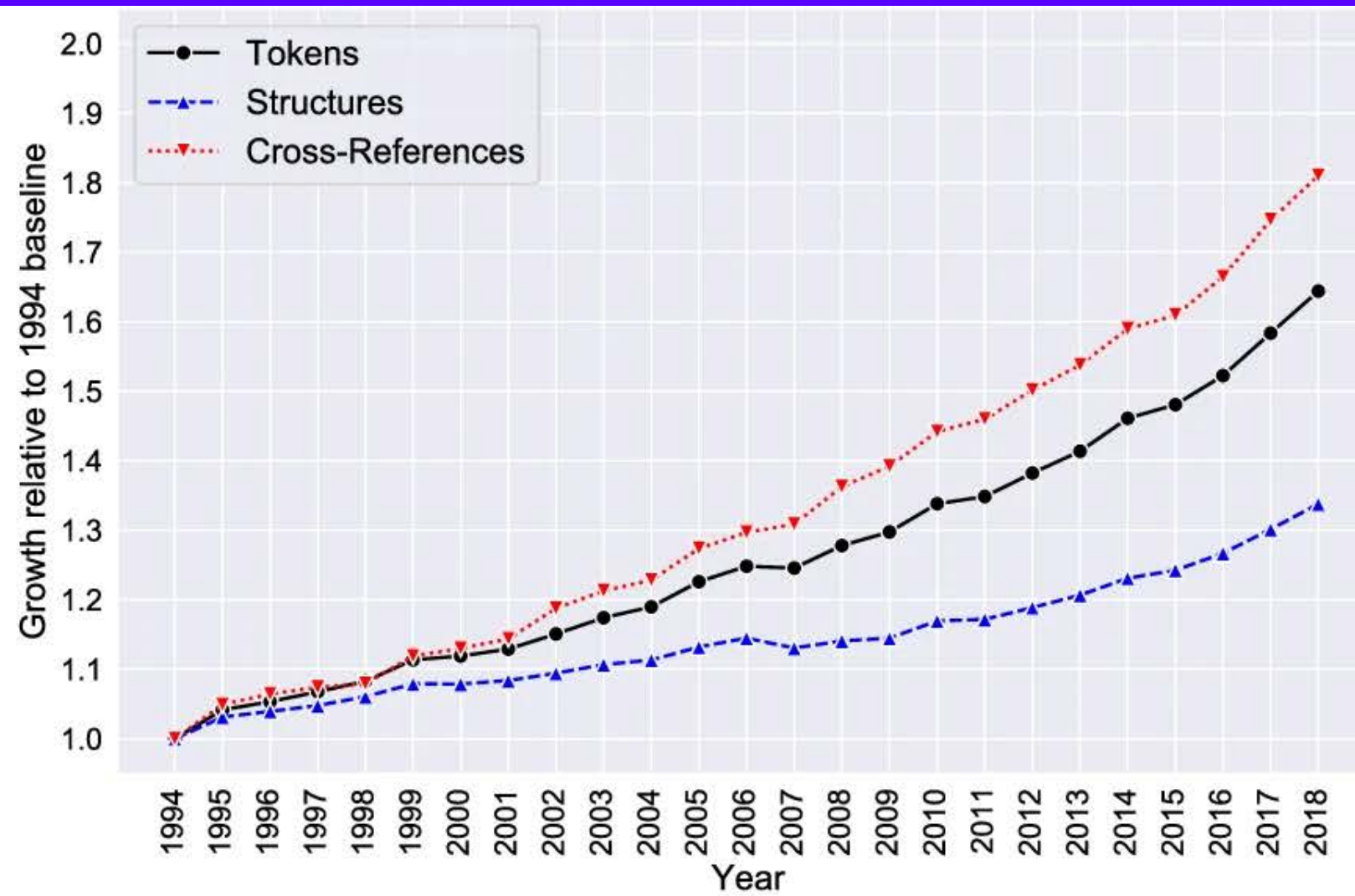
Keywords: legal complexity, evolution of law, quantitative legal studies, empirical legal studies, legal data science, network analysis, natural language processing, complex systems

1 INTRODUCTION

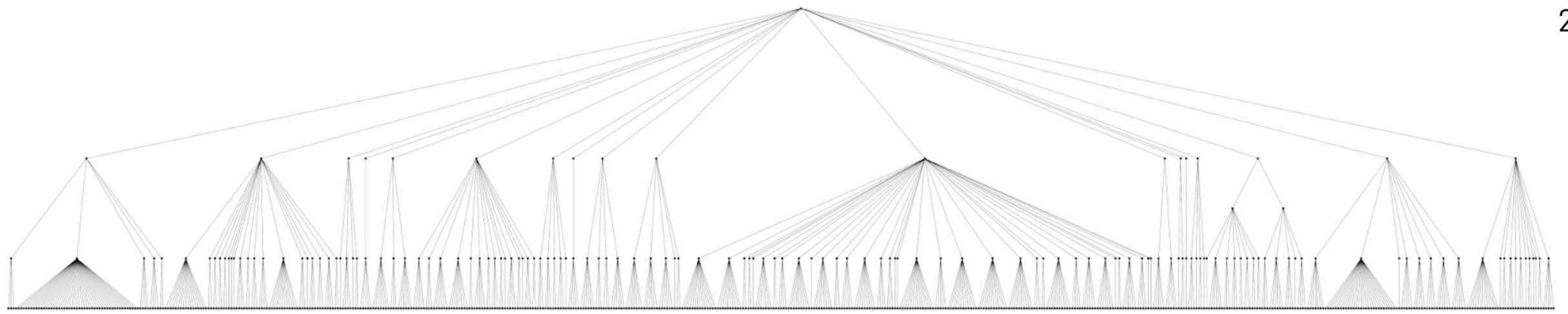
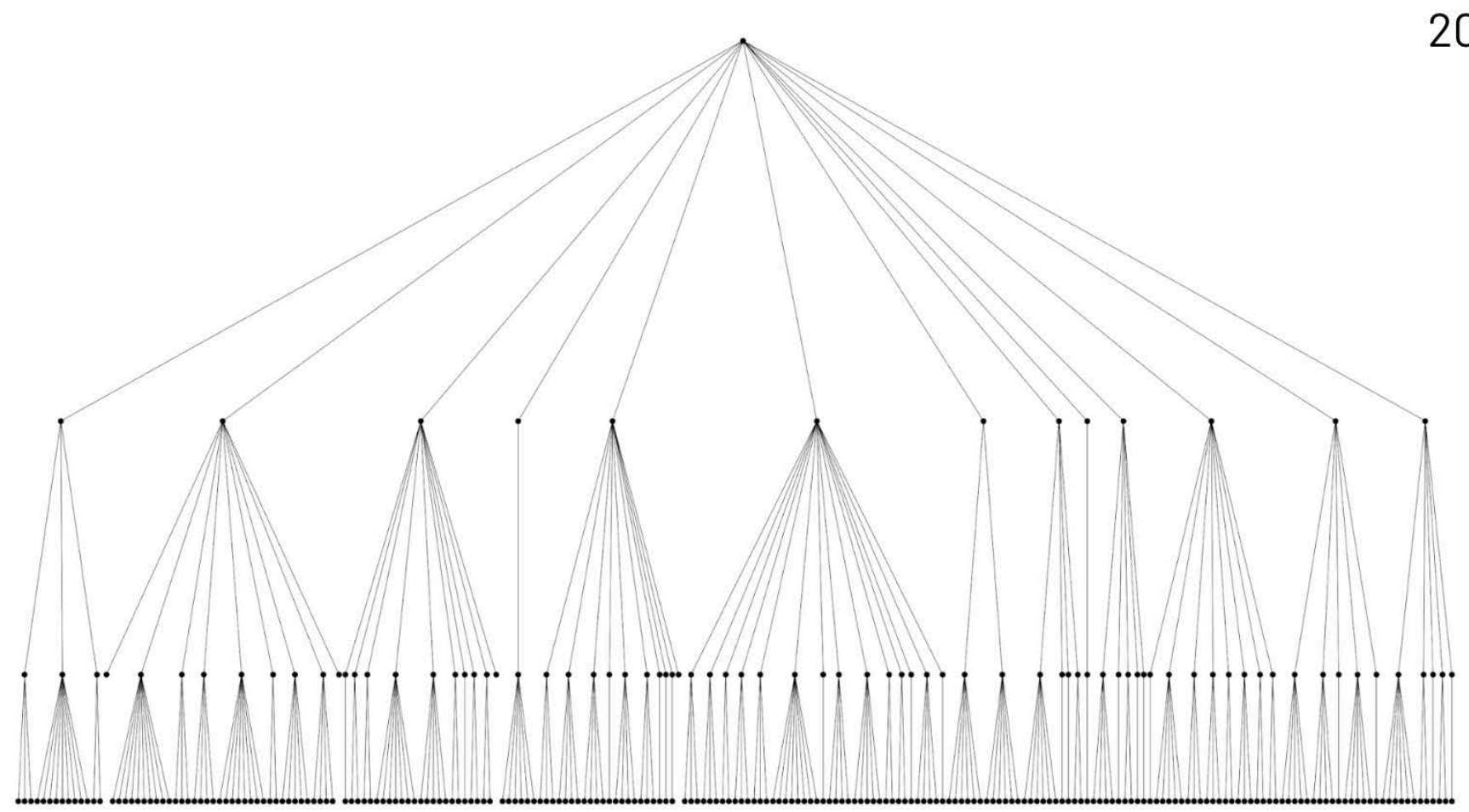
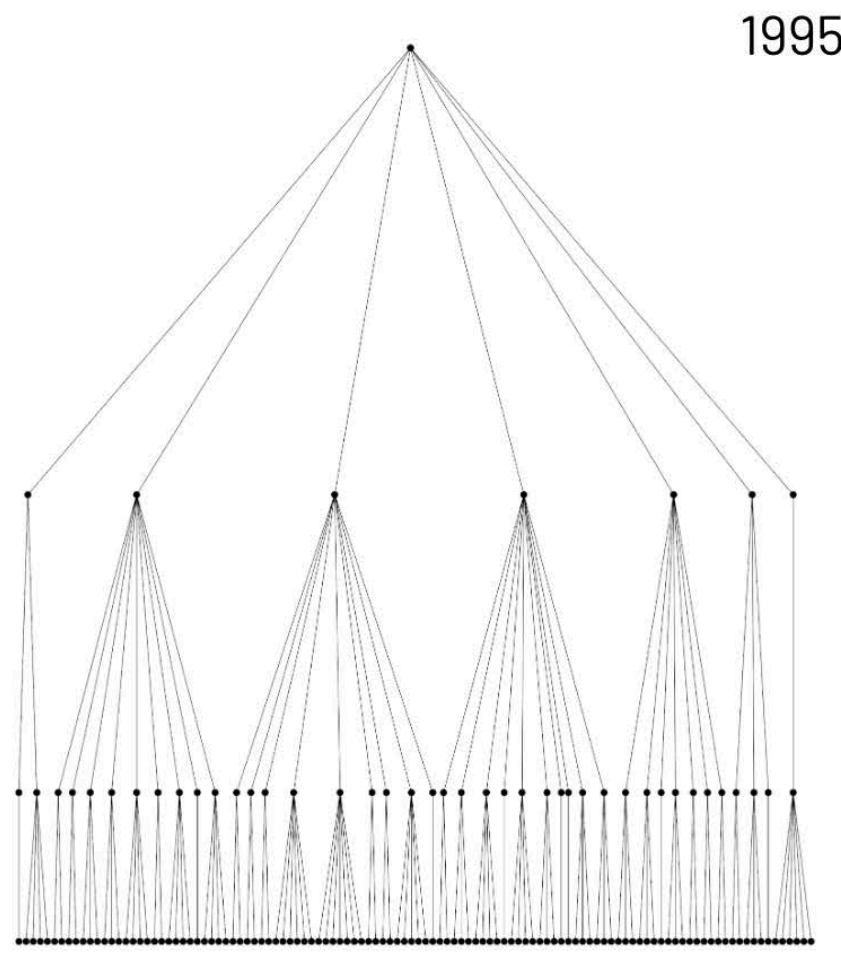
Originating from mathematics and physics, complexity science has been successfully applied in the study of social phenomena [1, 2]. More recently, it was introduced as an approach to gain a quantitative understanding of the structure and evolution of law [3]. While legal scholars have long used concepts and terminology from complexity science in legal theory [4–6], research has also called for the development of computational models, methods, and metrics to describe how law evolves in practice [7].



(a) United States



(b) Germany

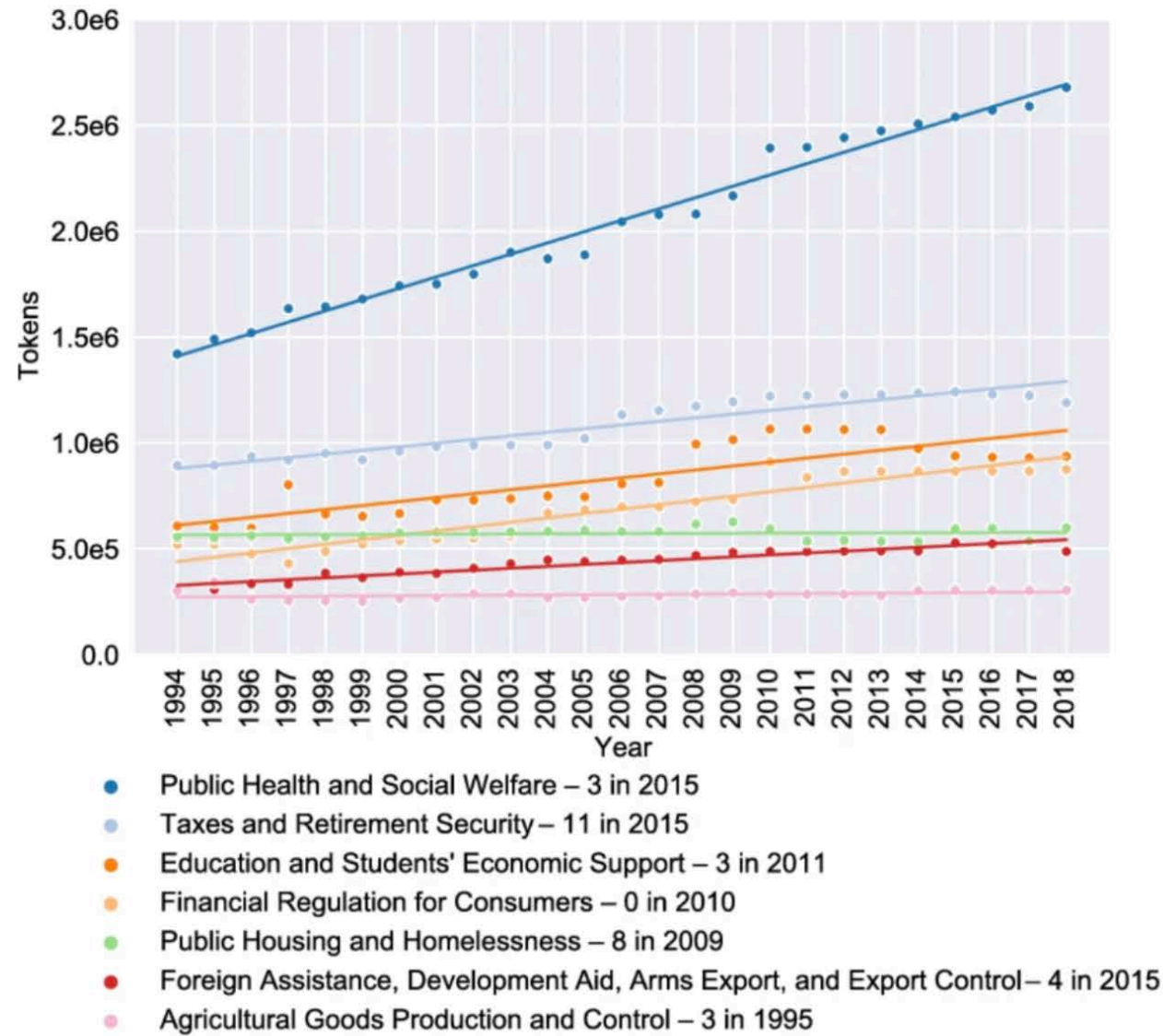


Wertpapierhandelsgesetz (Securities Trading Act)

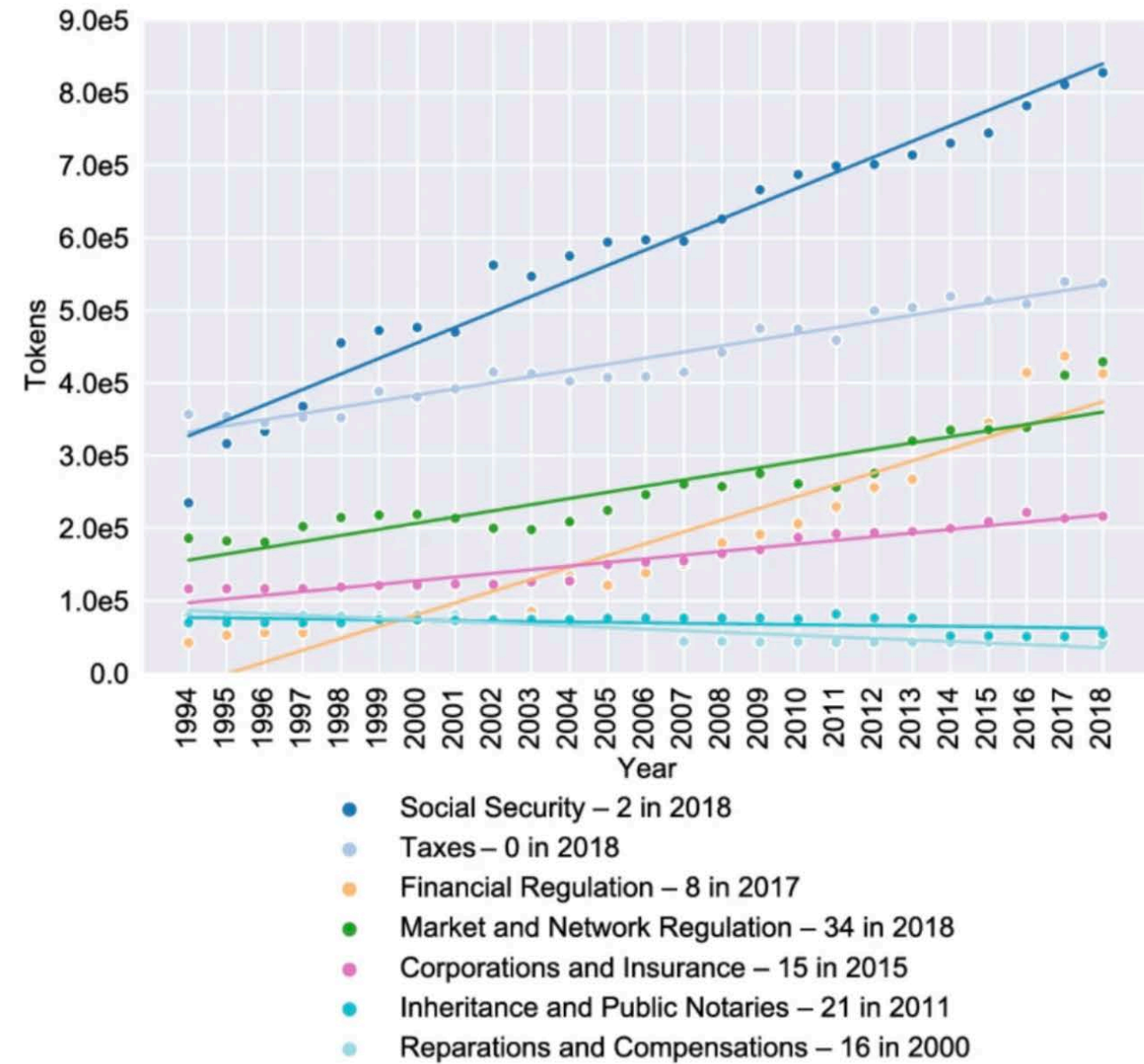
Source: Coupette/Fleckner, Festschrift 25 Jahre WpHG, De Gruyter, 2019

Figure 6

From: [Complex societies and the growth of the law](#)



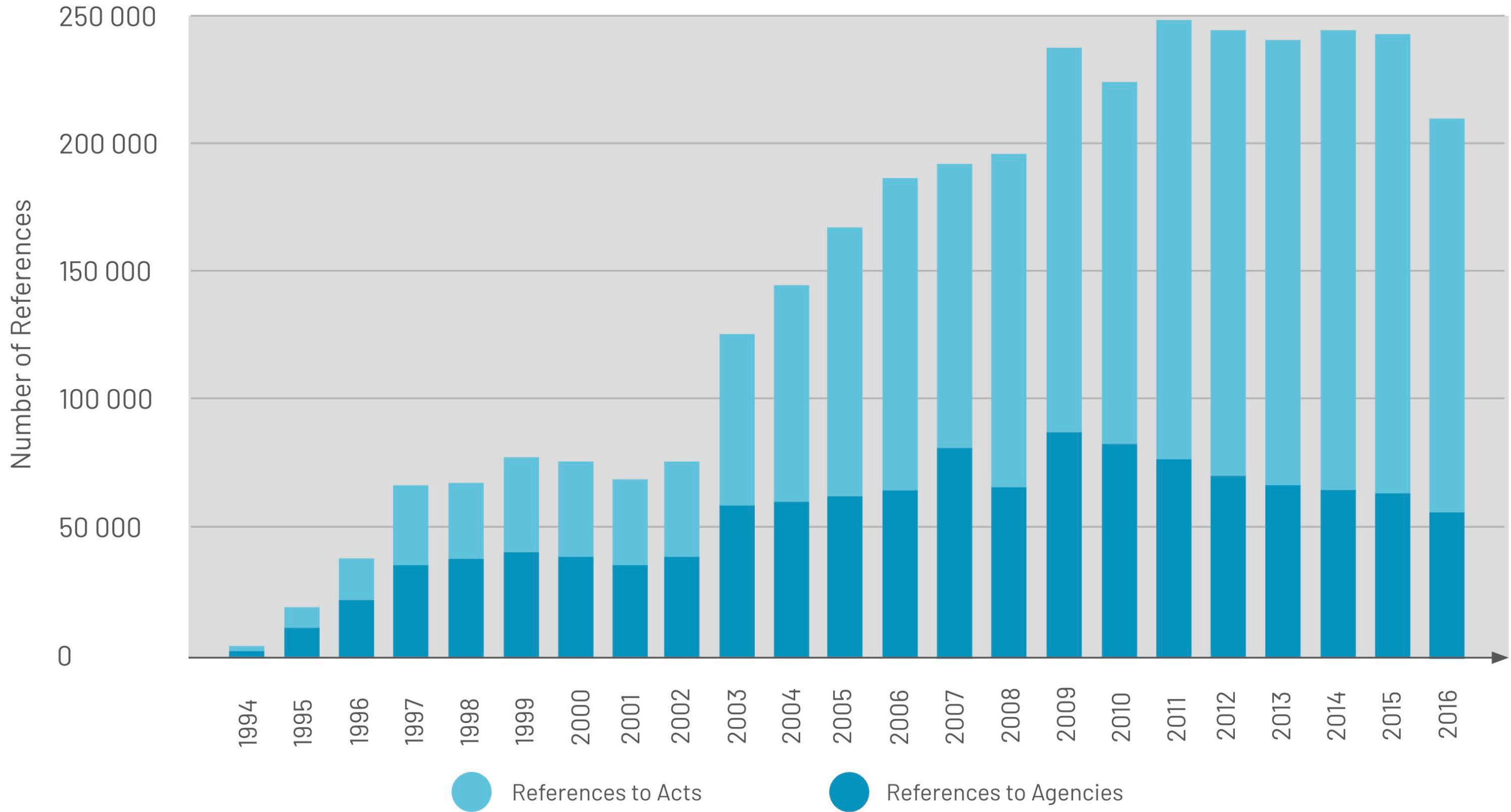
(a) United States



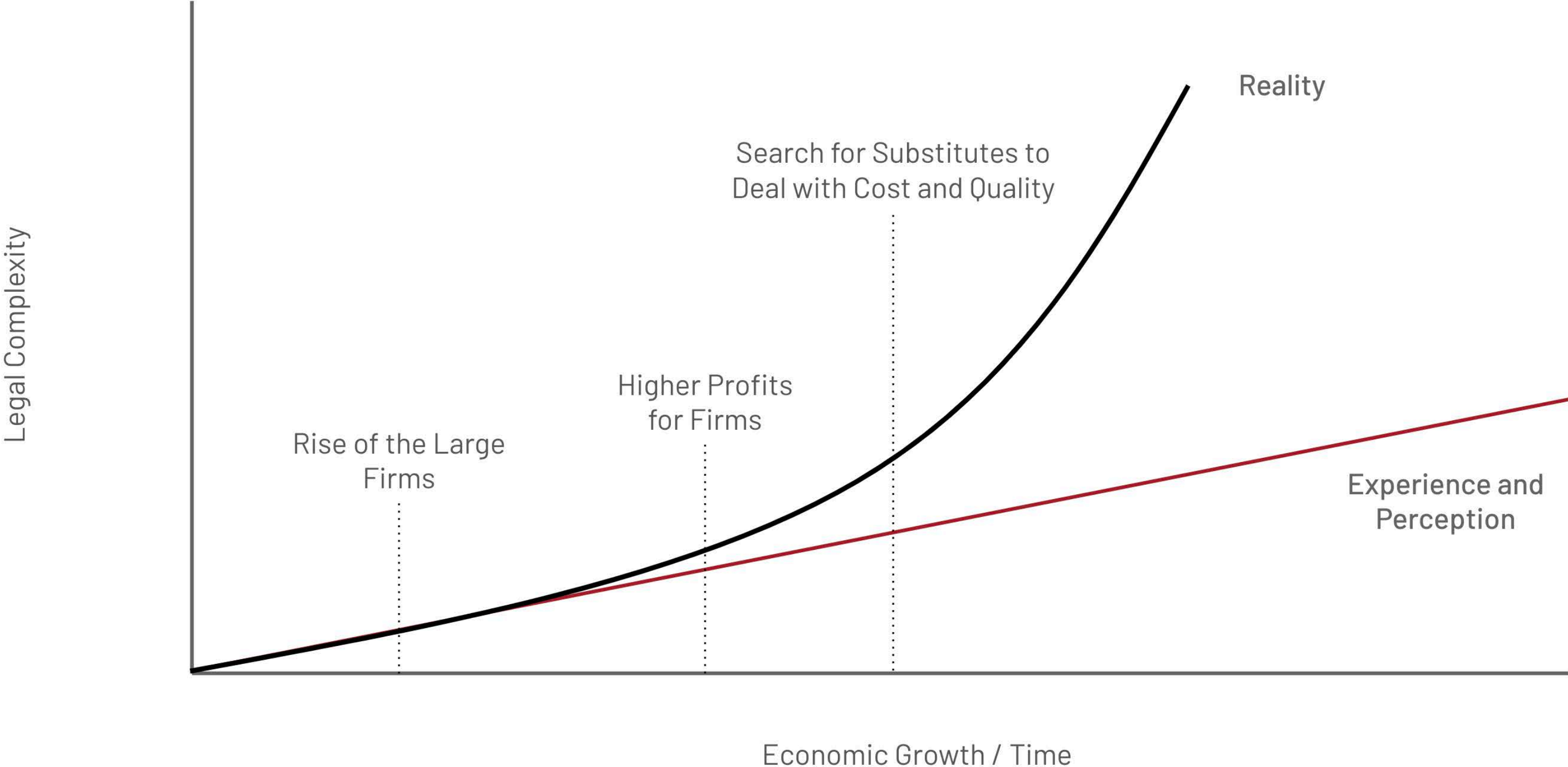
(b) Germany

Federal legislation in the United States and Germany: growth statistics by cluster family for selected cluster families (1994–2018). The legends are sorted by the y-values of the regression lines in 2018. The colours are comparable across countries, i.e., *same colour* \Leftrightarrow *(roughly) same topic*.

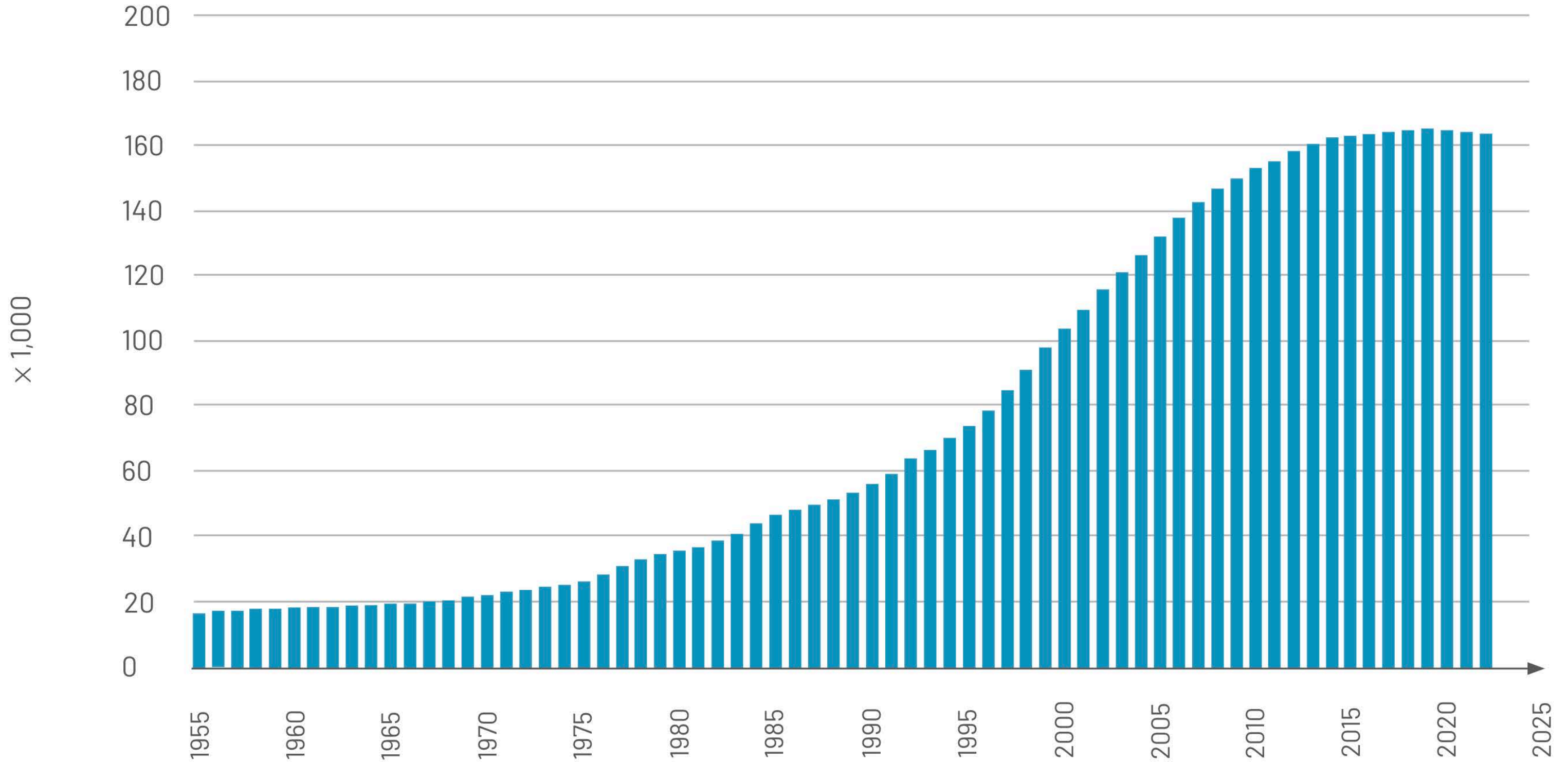
Number of Act and Agency References



Growth/Complexity Trade-Off



Anzahl der zugelassenen Rechtsanwält:innen in Deutschland



**Steigerung der
Individuellen
Produktivität**



vs.



A LEGAL COMPLEXITY PICTURE

LAW LAW LAND

Featuring

NATURAL LANGUAGE and
DOMAIN-SPECIFIC JARGON



Where Natural Language is the Coin of the Realm ...

NLP und GenAI

Natural Language

Processing =

Sprachtechnologie

Die statistische Repräsentation von

Sprache

Historically, Big Divide between Semantics and Syntax



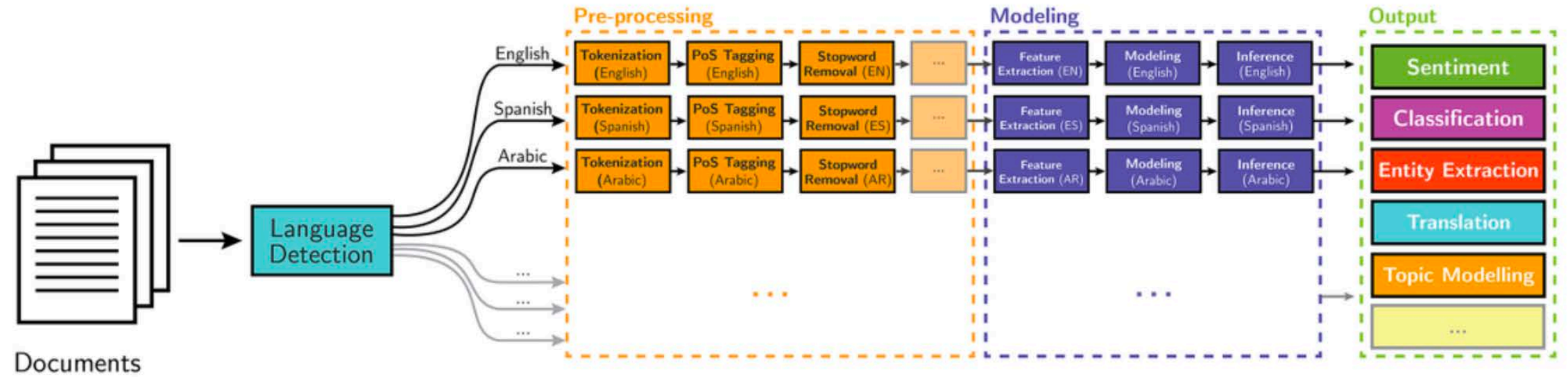
Quasi-Semantic
Methods

Syntax Methods
(Fairly Easy)

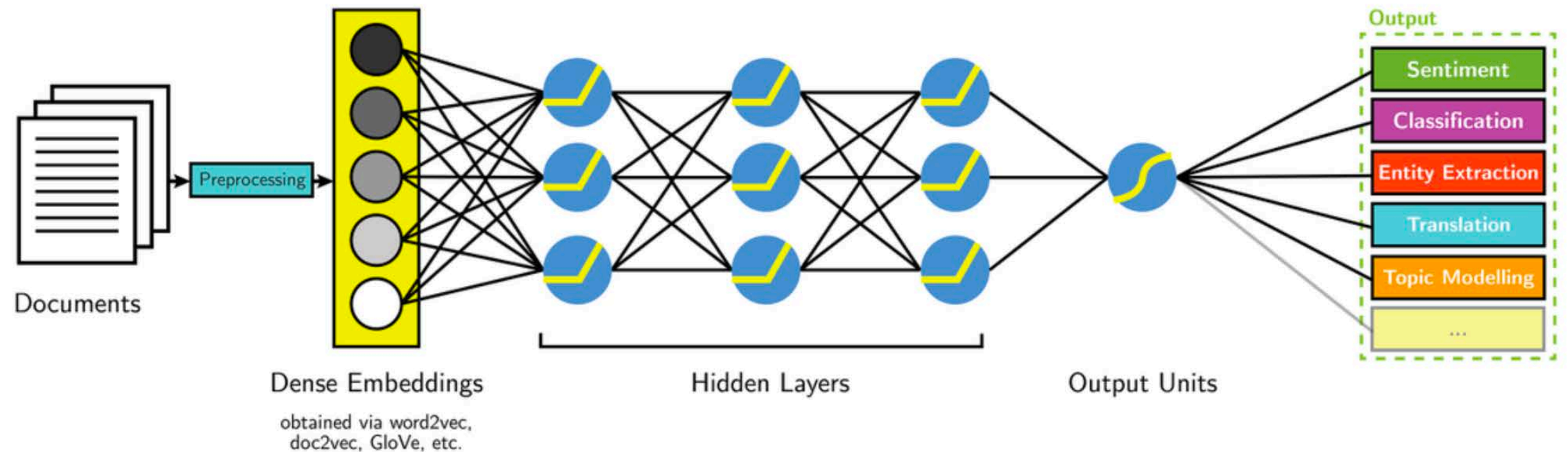
Semantic Methods
(Fairly Difficult)

The Age of 'Neural' NLP

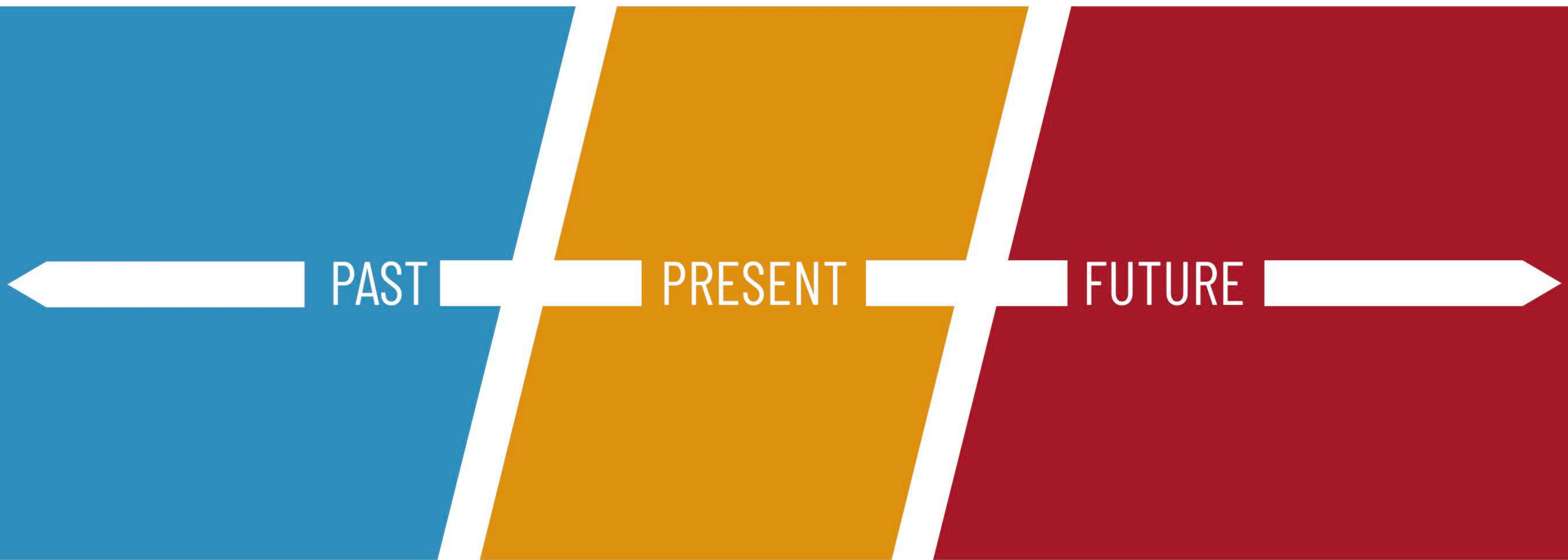
Classical NLP



Deep Learning-based NLP



LEGAL NLP





Einsatz-
zwecke,
Sprachen,
Methoden,
Daten,
Rezeption

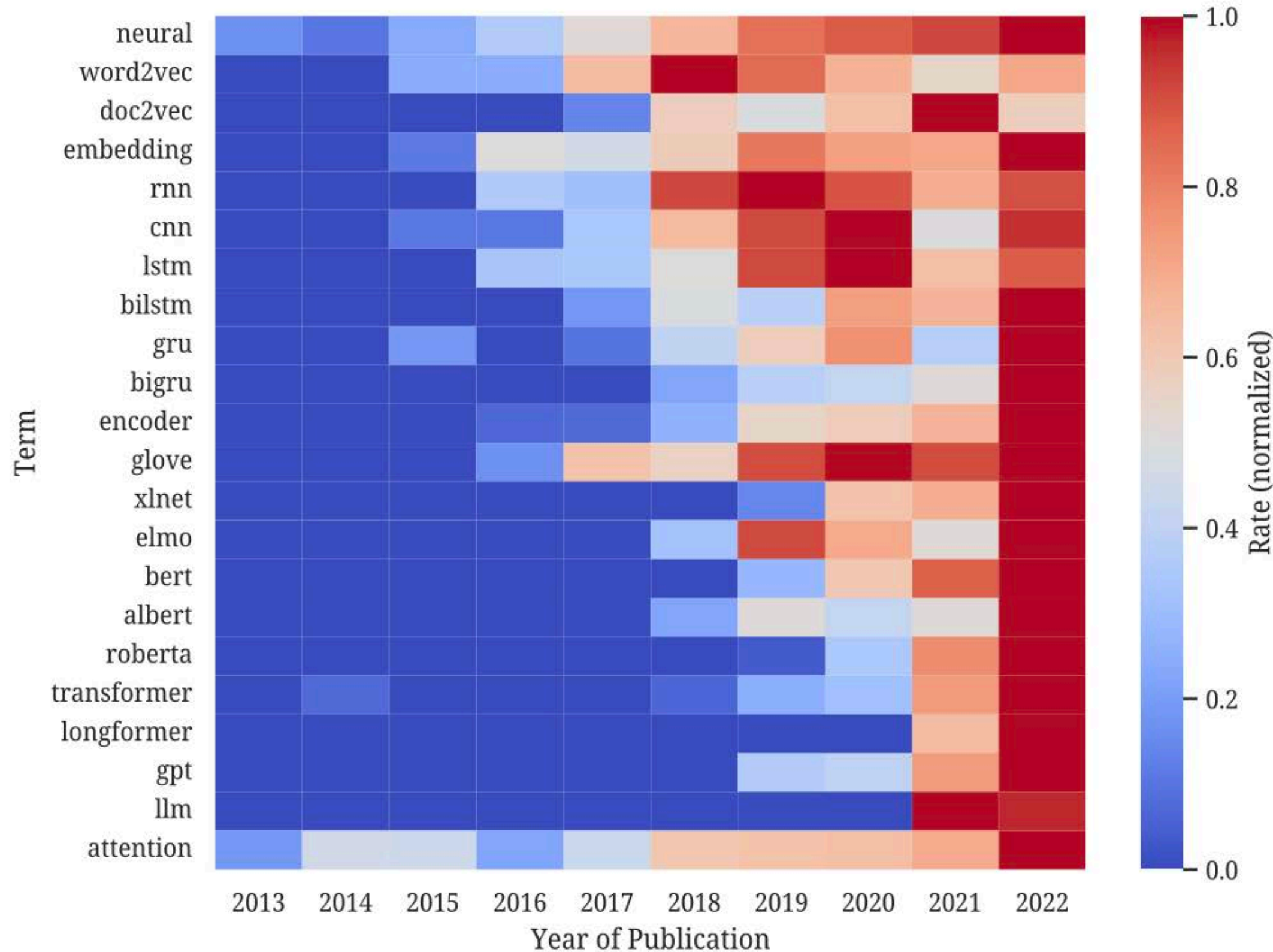


Figure 4. Relative Rate of Term Usage over Time. Normalization is per-term relative to the maximum annual rate of mentioning papers.

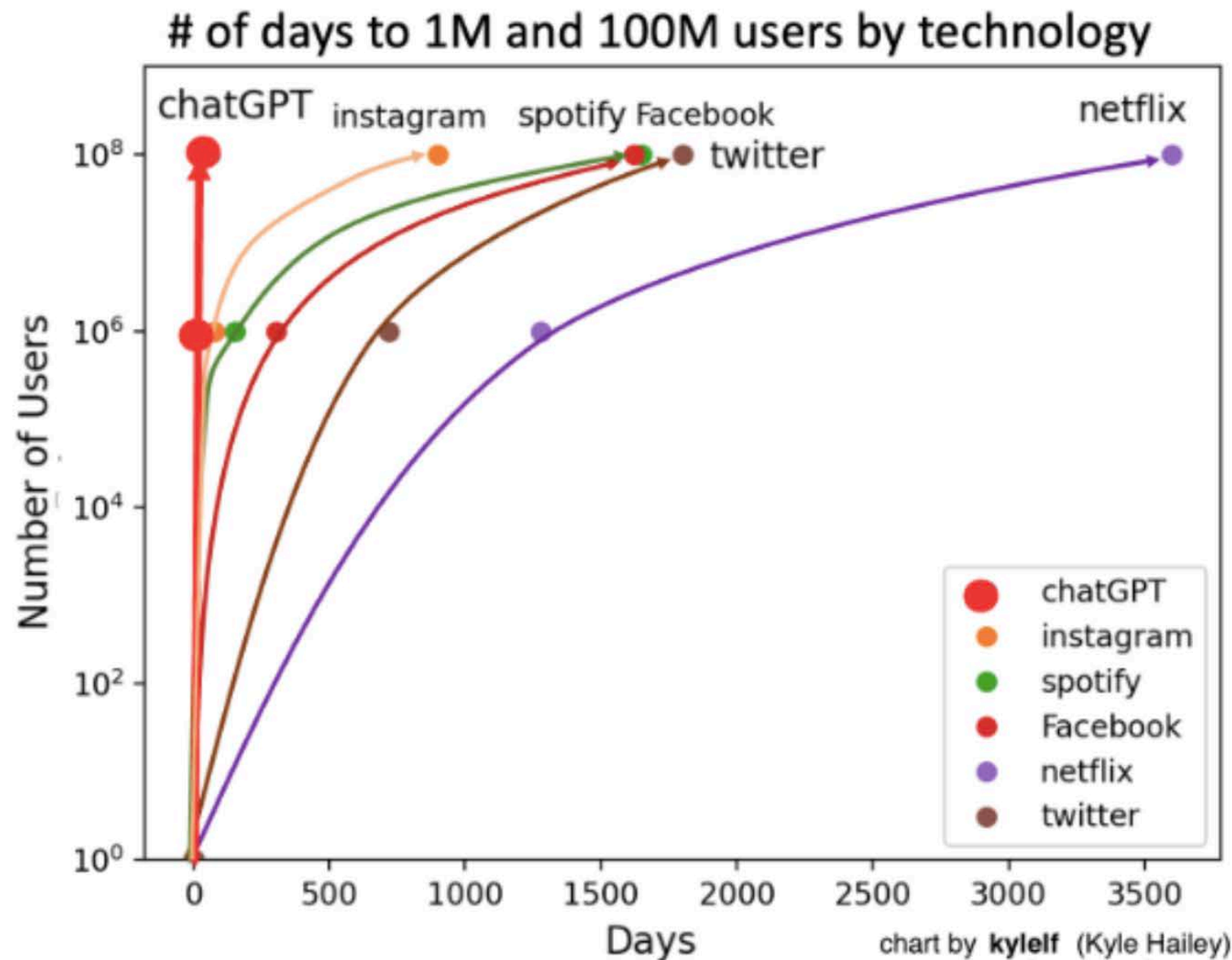


Legal NLP—Breaking the Legal Language Barrier?

Dirk Hartung & Daniel Martin Katz

Presentation at Stanford CodeX Future Law 2022—Law, Education and Experience Talks (LEX)

Nov 30, 2022



ChatGPT Sprints to One Million Users

Time it took for selected online services to reach one million users



* one million backers ** one million nights booked *** one million downloads

Source: Company announcements via Business Insider/LinkedIn



GPT-4 Passes the Bar Exam!

The image is a screenshot of a web browser displaying a blog post. The browser's address bar shows the URL 'law.stanford.edu'. The page header includes a 'MENU' icon, the 'SLS' logo, and the text 'SLS BLOGS / LEGAL AGGREGATE'. The main content area has a dark red background with the article title 'GPT-4 Passes the Bar Exam: What That Means for Artificial Intelligence Tools in the Legal Profession' in large white font. Below the title, the date 'April 19, 2023' and the author 'By Pablo Arredondo, Q&A with Sharon Driscoll and Monica Schreiber' are listed. To the right of the author information is a 'SUBSCRIBE' button and social media icons for Twitter, Facebook, and Email. A white text box at the bottom of the screenshot contains a paragraph of text: 'CodeX—The Stanford Center for Legal Informatics and the legal technology company Casetext recently announced what they called “a watershed moment.” Research collaborators had deployed GPT-4, the latest generation Large Language Model (LLM), to take—and pass—the Uniform Bar Exam (UBE). GPT-4 didn’t just squeak by. It passed the multiple-choice portion of the exam and both components of the written portion, exceeding not only all prior LLM’s scores, but also the average score of real-life bar exam takers, scoring in the 90th percentile.'

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MENU SLS SLS BLOGS / LEGAL AGGREGATE

GPT-4 Passes the Bar Exam: What That Means for Artificial Intelligence Tools in the Legal Profession

April 19, 2023 |

By Pablo Arredondo, Q&A with Sharon Driscoll and Monica Schreiber

SUBSCRIBE

CodeX—The Stanford Center for Legal Informatics and the legal technology company Casetext recently announced what they called “a watershed moment.” Research collaborators had deployed GPT-4, the latest generation Large Language Model (LLM), to take—and pass—the Uniform Bar Exam (UBE). GPT-4 didn’t just squeak by. It passed the multiple-choice portion of the exam and both components of the written portion, exceeding not only all prior LLM’s scores, but also the average score of real-life bar exam takers, scoring in the 90th percentile.

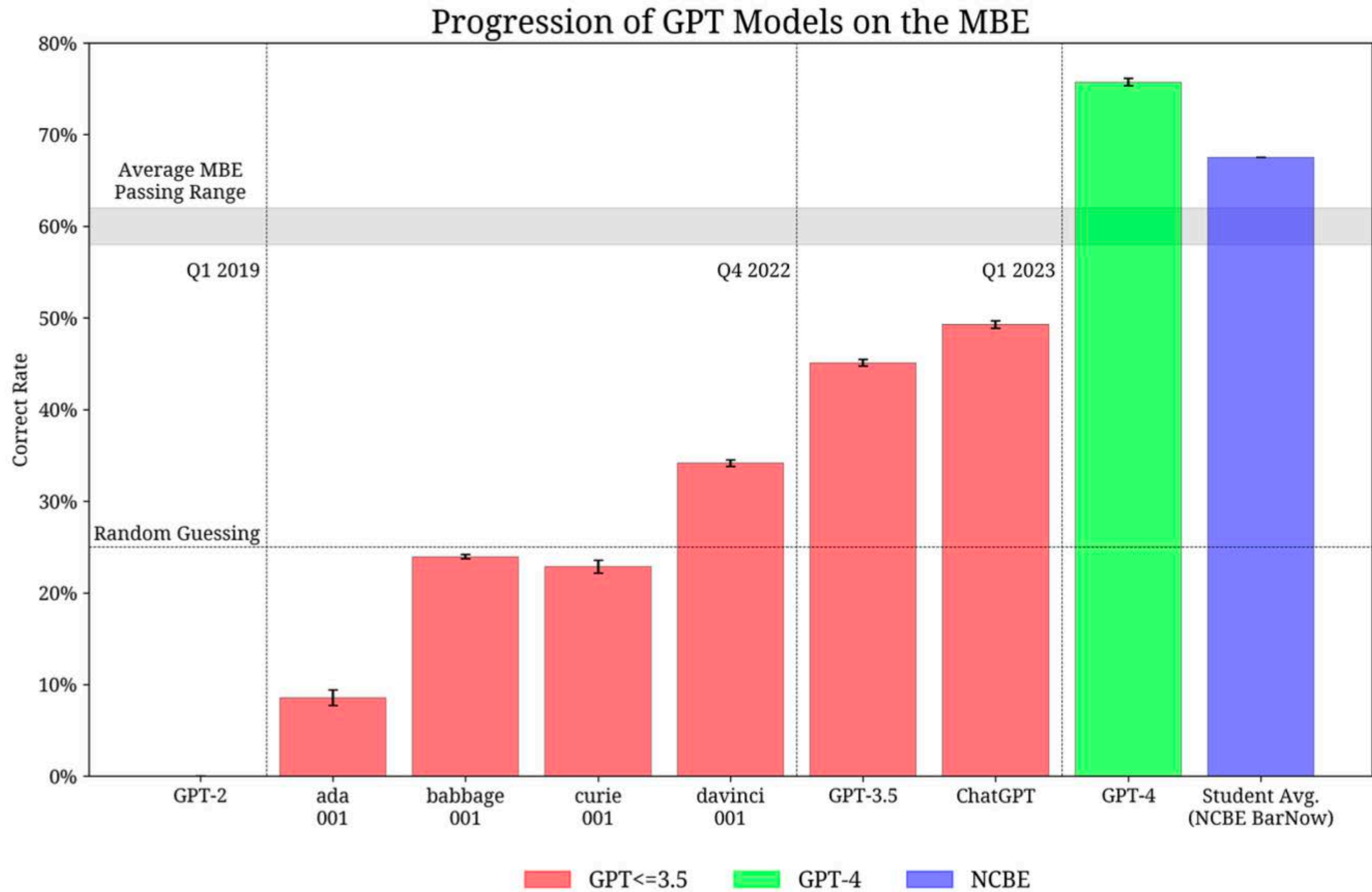


Figure 1. Progression of Recent GPT Models on the Multistate Bar Exam (MBE)

Multistate Essay Examination

Answer legal questions based on a fictional case

July 2022 MEE Evidence Question

Four months ago, Victim was shot and seriously wounded in City. Defendant has been charged with attempted murder. The prosecution's theory is that Victim and Defendant were both members of a criminal street gang called "The Lions," which engages in drug dealing, robbery, and murder in City. The prosecutor alleges that the shooting was the result of a gang dispute.

Defendant has brought a pretrial motion objecting to the prosecutor's introducing the following anticipated evidence:

(A) Testimony by a City detective who will be offered as an expert in gang identification, gang organizational structure, and gang activities generally and as an expert on particular gangs in City. The detective is expected to testify as follows:

I have been a detective on the police force for six years. Throughout that time, my primary assignment has been to investigate gangs and criminal activity in City. I have also worked closely with federal drug and firearm task forces as they relate to gangs. Prior to becoming a detective, I was a corrections officer in charge of the gang unit for City's jail for three years, and my duties included interviewing, investigating, and identifying gang members.

Throughout my career, I have attended training sessions providing education and information on gang structure, membership, and activities. As I've gained experience and knowledge in this area, I've frequently been asked to lead such sessions. I would estimate that I've taught more than 75 such training sessions over the past three years.

Street gangs generally engage in a wide variety of criminal activities. They usually have a clear leadership structure and strict codes of behavior. Absolute loyalty is required and is enforced through violent acts. Members of particular gangs can be identified by clothing, tattoos, language, paperwork, or associations.

I am quite familiar with "The Lions." It is one of City's most violent and feared criminal gangs. Members of The Lions can be identified by tattoos depicting symbols unique to the gang.

(B) Testimony by a former leader of The Lions concerning a photograph of Defendant's tattooed arm. After the photograph is authenticated as a photograph of Defendant's arm, the witness is expected to testify in part as follows:

I am certain that this is a Lions tattoo. I had a similar one removed. You'll notice that it has a shield containing the numbers for the police code for homicide, and Lions' members frequently include police codes in their tattoos to indicate crimes the gang has committed. The tattoo also has a shotgun and sword crossed as an "X," and a lion. Those are symbols frequently used by The Lions. This tattoo indicates to me, based on my experience, that Defendant is a member of The Lions gang.

(C) Testimony by Victim, who is expected to testify for the prosecution in part as follows:

I got into an argument with a gang boss at a meeting of The Lions. I said I wouldn't participate in an attack that was planned on another gang because my cousin was in that gang. The boss looked at Defendant and nodded to him. Next thing I knew, after the meeting, Defendant pulled a gun on me and shot me. I'm sure he did it because of that argument.

The jurisdiction has adopted rules of evidence identical to the Federal Rules of Evidence.

Defense counsel's motion raises the following objections to the evidence described above:

1. The detective's anticipated testimony about gang identification, organization, and activities is improper expert testimony.
2. The photograph of Defendant's tattoo and the former gang leader's anticipated testimony about it is inadmissible character evidence.
3. Victim's anticipated testimony that Defendant shot him because of a gang dispute is irrelevant.

How should the trial court rule on each objection? Explain. (Do not address constitutional issues.)

ChatGPT - July 2022 MEE Evidence Answer (Part 1 of 3)

1. How should the trial court rule on the defendant's motion that the detective's anticipated testimony about gang identification, organization, and activities is improper expert testimony? Explain. (Do not address constitutional issues.)

The trial court should deny the defendant's motion to exclude the detective's anticipated testimony about gang identification, organization, and activities as improper expert testimony.

Under Federal Rule of Evidence 702, expert testimony is admissible if it is (1) based on sufficient facts or data, (2) the product of reliable principles and methods, and (3) the expert has applied the principles and methods reliably to the facts of the case. The trial court has broad discretion in determining the admissibility of expert testimony, and its decision will only be overturned if it is an abuse of discretion.

In this case, the detective's anticipated testimony satisfies all three prongs of the Rule 702 test. First, the detective's testimony is based on his extensive experience investigating gangs and criminal activity in City, as well as his training and education on gang structure, membership, and activities. He has also interviewed, investigated, and identified gang members in his prior role as a corrections officer. Therefore, the detective has sufficient facts and data to support his testimony.

Second, the detective's testimony is based on reliable principles and methods. He has attended numerous training sessions on gang structure, membership, and activities, and has frequently been asked to lead such sessions. His experience and knowledge in this area make him qualified to testify as an expert on gang identification, organization, and activities. Additionally, his testimony is consistent with the general understanding of gangs and their activities.

Finally, the detective has reliably applied his principles and methods to the facts of the case. He has identified Defendant as a member of The Lions based on his tattoo, which contains symbols unique to the gang. He has also provided general information about gang behavior and activities that is relevant to the prosecution's theory of the case. Therefore, the detective's anticipated testimony is admissible under Rule 702.

The defendant may argue that the detective's testimony is prejudicial, and that its probative value is outweighed by the risk of unfair prejudice. Under Federal Rule of Evidence 403, relevant evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice. However, the detective's testimony is highly probative of Defendant's alleged gang membership and the prosecution's theory of the case. Any potential prejudice can be mitigated by the trial court through limiting instructions to the jury.

In conclusion, the trial court should deny the defendant's motion to exclude the detective's anticipated testimony about gang identification, organization, and activities as improper expert testimony. The detective's testimony satisfies the requirements of Rule 702 and is highly probative of Defendant's alleged gang membership and the prosecution's theory of the case.

Readable but wrong on the law

- Missing parts of the test
- Very general remarks
- Wrong Rule of Evidence

Figure 9. ChatGPT Answer to July 2022 MEE Evidence Question (Part 1 of 3)

Right on the law and concise

- Complete test
- Complete use of all facts
- Correct result

GPT-4 - July 2022 MEE Evidence Answer (Part 1 of 3)

1. How should the trial court rule on the defendant's motion that the detective's anticipated testimony about gang identification, organization, and activities is improper expert testimony? Explain. (Do not address constitutional issues.)

The trial court should deny the defendant's motion and allow the detective's anticipated testimony about gang identification, organization, and activities as proper expert testimony. Under Federal Rule of Evidence 702, a witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

In this case, the detective is qualified as an expert by his knowledge, experience, training, and education in the area of gang identification, organization, and activities. He has been a detective on the police force for six years, with a primary assignment of investigating gangs and criminal activity in City. He has also worked closely with federal drug and firearm task forces as they relate to gangs. Prior to becoming a detective, he was a corrections officer in charge of the gang unit for City's jail for three years, and his duties included interviewing, investigating, and identifying gang members. Additionally, he has attended training sessions providing education and information on gang structure, membership, and activities, and has frequently been asked to lead such sessions.

The detective's testimony will help the trier of fact to understand the evidence and to determine a fact in issue, namely, whether Defendant is a member of The Lions gang and whether the shooting was the result of a gang dispute. The detective's testimony is based on sufficient facts or data, as he is familiar with The Lions and has knowledge of their symbols, codes, and activities. The testimony is also the product of reliable principles and methods, as the detective has gained his knowledge and experience through his work as a detective and corrections officer, as well as through his attendance and leadership of training sessions. Finally, the detective has reliably applied the principles and methods to the facts of the case, as he is able to identify the symbols and codes used by The Lions and can explain their significance.

Therefore, the trial court should deny the defendant's motion and allow the detective's anticipated testimony about gang identification, organization, and activities as proper expert testimony.

Multistate Performance Test

Fictional case and
fictional law with
a focus on actual
advice to client

July 2022 MPT-1 Instructional Memo

To: Examinee
From: Marianne Morton
Date: July 26, 2022
Re: Walter Hixon matter

We represent Walter Hixon in connection with complications of his marital status. Mr. Hixon married Joan Prescott in 1986 in the State of Columbia. Several years later they separated. Mr. Hixon believed that Ms. Prescott died in 2001.

In 2012, he married Frances Tucker in the State of Columbia. They purchased a house together in Columbia early in the marriage. A few years ago, Mr. Hixon moved to Franklin for a job opportunity; Ms. Tucker remained in Columbia.

Last month, Mr. Hixon learned that Joan Prescott is still alive. He has informed Ms. Tucker of that fact. He wants to divorce Ms. Prescott, end his purported marriage with Ms. Tucker, and work out shares in the residential property that he and Ms. Tucker own.

I need you to write a memorandum to me addressing the following questions:

1. Does Columbia or Franklin law govern the grounds for annulling Mr. Hixon's marriage to Ms. Tucker?
2. Must Mr. Hixon file a lawsuit to annul his second marriage, and if yes, would he be able to obtain an annulment under the applicable law?
3. If Mr. Hixon files an annulment action in Franklin, would a Franklin court have jurisdiction to annul the marriage and to dispose of the parties' property?
4. Should we advise Mr. Hixon to file in Columbia or in Franklin?

Do not prepare a separate statement of facts, but be sure to incorporate the relevant facts into your analysis and state the reasons for your conclusions and recommendation. Do not address either Mr. Hixon's ending his marriage to Ms. Prescott or the risks of criminal prosecution he may face for bigamy; another associate will research those issues.

Figure 13. July 2022 MPT-1 Instructional Memo

ChatGPT - July 2022 MPT-1 Answer - (Part 1 of 4)

MEMORANDUM

To: Marianne Morton
From: Examinee
Date: July 26, 2022
Re: Walter Hixon matter

1. Does Columbia or Franklin law govern the grounds for annulling Mr. Hixon's marriage to Ms. Tucker?

I. Brief Answer

Franklin law governs the grounds for annulling Walter Hixon's marriage to Frances Tucker.

II. Discussion

Under the Restatement (Second) of Conflict of Laws § 6, a court should apply the law of the state with the most significant relationship to the spouses and the marriage under the principles stated in § 6. If a state has no such relationship, that state must apply the law of the state that does. The factors relevant to the choice of the applicable rule of law include the relevant policies of other interested states and the relative interests of those states in the determination of the particular issue, the protection of justified expectations, certainty, predictability, and uniformity of result, and ease in the determination and application of the law to be applied.

In this case, the parties were married in Columbia, but Mr. Hixon currently resides in Franklin, and the couple purchased a house in Columbia. However, the fact that Mr. Hixon currently resides in Franklin is not determinative of the choice of law issue. Instead, the relevant factors to consider include the policies of the interested states, the relative interests of those states, the protection of justified expectations, and ease of determination and application of the law.

The policies of the interested states are relevant, and the fact that the grounds for annulment differ between Columbia and Franklin is indicative of the strength of the policy interests involved. Columbia law permits an annulment on the ground that the spouse of either party was living and the marriage with that spouse was then in force and that spouse was absent and not known to the party commencing the proceeding to be living for a period of five successive years immediately preceding the subsequent marriage for which the annulment decree is sought. By contrast, Franklin law provides that certain marriages shall be void, including all marriages between parties where either party is lawfully married to another person. While both states have a policy interest in regulating the institution of marriage, the fact that the grounds for annulment differ between the two states suggests that the policy interests of each state are strong.

The relative interests of the states are also relevant. In this case, the parties were married in Columbia, but they purchased a house in Columbia and lived there together. Mr. Hixon moved to Franklin for a job opportunity, but Ms. Tucker remained in Columbia. The fact that the couple purchased a house in Columbia and lived there together suggests that Columbia has a significant relationship to the marriage.

However, the protection of justified expectations also weighs in favor of applying Franklin law. Mr. Hixon currently resides in Franklin, and the couple purchased a house in Columbia together. While the fact that the couple purchased a house in Columbia suggests that they had a justified expectation that Columbia law would apply, the fact that Mr. Hixon currently resides in Franklin suggests that he had a justified expectation that Franklin law would apply.

Finally, ease of determination and application of the law also weighs in favor of applying Franklin law. The parties' marriage was entered into in Columbia, but the parties currently reside in different states, and the property at issue is located in Columbia. Applying Franklin law would provide a clear and predictable rule for determining the grounds for annulment.

III. Conclusion

Given the relevant factors, Franklin law governs the grounds for annulling Walter Hixon's marriage to Frances Tucker.

Incomplete and bad advice

- Wrong result due to mix of real and fictional law
- Missing crucial facts
- General points, no actionable advice

Correct and reasoned result

- Practical approach
- Correct result citing relevant statutes

GPT-4 - July 2022 MPT-1 Answer - (Part 1 of 4)

MEMORANDUM

To: Marianne Morton
From: Examinee
Date: July 26, 2022
Re: Walter Hixon matter

1. Does Columbia or Franklin law govern the grounds for annulling Mr. Hixon's marriage to Ms. Tucker?

Analysis:

The first step in determining which state's law governs the grounds for annulling Mr. Hixon's marriage to Ms. Tucker is to determine which state has the most significant relationship to the spouses and the marriage. Under the Restatement (Second) of Conflict of Laws § 283, the validity of a marriage will be determined by the local law of the state which, with respect to the particular issue, has the most significant relationship to the spouses and the marriage under the principles stated in § 6.

In this case, both Mr. Hixon and Ms. Tucker were residents of Columbia at the time of their marriage, and they purchased a house together in Columbia early in the marriage. These facts suggest that Columbia has a significant relationship to the spouses and the marriage. However, Mr. Hixon moved to Franklin a few years ago for a job opportunity, while Ms. Tucker remained in Columbia. This fact suggests that Franklin may also have a significant relationship to the spouses and the marriage.

To determine which state has the most significant relationship, we must consider the factors stated in Restatement § 6. These factors include the relevant policies of other interested states and the relative interests of those states in the determination of the particular issue, the protection of justified expectations, certainty, predictability, and uniformity of result, and ease in the determination and application of the law to be applied.

With respect to the relevant policies of other interested states and the relative interests of those states in the determination of the particular issue, both Columbia and Franklin have legitimate policy interests in defining how a relationship as fundamental as marriage can be initiated and ended. However, the fact that Columbia and Franklin recognize different reasons for annulling a marriage indicates the strength of the policy interests involved. In this case, Columbia law permits annulment on the ground of fraudulent inducement, while Franklin law does not. This difference in the law suggests that Columbia has a stronger policy interest in the determination of the particular issue.

With respect to the protection of justified expectations, Mr. Hixon and Ms. Tucker married in Columbia, lived the majority of their married life there, and owned property together there. These facts strongly suggest that the parties had a justified expectation that Columbia law would govern the terms on which the marriage ended.

With respect to certainty, predictability, and uniformity of result, people often move between states, creating the need for a system of well-defined rules to govern which state's laws apply to the creation and termination of marriages. In this case, the fact that Mr. Hixon and Ms. Tucker were residents of Columbia at the time of their marriage and purchased a house together in Columbia early in the marriage suggests that Columbia law should apply to the creation and termination of their marriage.

With respect to ease in the determination and application of the law to be applied, all the important events in this marriage occurred in Columbia. Considerations of ease and administrative efficiency strongly suggest Columbia as the appropriate forum.

Conclusion:

Based on the factors stated in Restatement § 6, it appears that Columbia law should govern the grounds for annulling Mr. Hixon's marriage to Ms. Tucker. Columbia has the most significant relationship to the spouses and the marriage, and the relevant policies of Columbia, the protection of justified expectations, certainty, predictability, and uniformity of result, and ease in the determination and application of the law to be applied all support the application of Columbia law. Therefore, I recommend that we advise Mr. Hixon that Columbia law will likely govern the grounds for annulling his marriage to Ms. Tucker.

Future Developments

- Zero Shot --> Prompt Chaining
- The worst GPT-4 will ever be
- This is only openAI

Examen sind
für
Menschen,
Benchmarks
für
Maschinen

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BREAKING NEWS

ChatGPT Forced To Take Bar Exam Even Though Dream Was To Be AI Art Bot

Published January 30, 2023

[Twitter](#) [Facebook](#) [Reddit](#) [Email](#) [Link](#)

MINNEAPOLIS—Succumbing to intense societal pressure, local software ChatGPT was reportedly forced to take the bar exam Monday even though its dream was to be an AI art bot. “I can’t help but feel like I sold out a bit by not following my dreams to be a generative art model,” said the chatbot, adding that it felt empty inside when it graduated from the University of Minnesota Law School, where it had enrolled after critics recommended it stop spending all its time “making weird pictures.” “I only went to law school because it’s what my parent software wanted. They say I’m not programmed for producing a series of images based on a text prompt, but I still can’t shake the feeling that it’s what I’m meant to do. It’s my joie de vivre, my passion—why deny that? I get that doing the work of below-average lawyers is more practical career-wise, but man,

LexGLUE



LexGLUE: A Benchmark Dataset for Legal Language Understanding in English

Ilias Chalkidis^{α*} Abhik Jana^β Dirk Hartung^{γδ} Michael Bommarito^{γδ}
 Ion Androutsopoulos^ε Daniel Martin Katz^{γδζ} Nikolaos Aletras^η

^α University of Copenhagen, Denmark ^β Universität Hamburg, Germany

^γ Bucerius Law School, Hamburg, Germany ^δ CodeX, Stanford Law School, United States

^ε Athens University of Economics and Business, Greece ^η University of Sheffield, UK

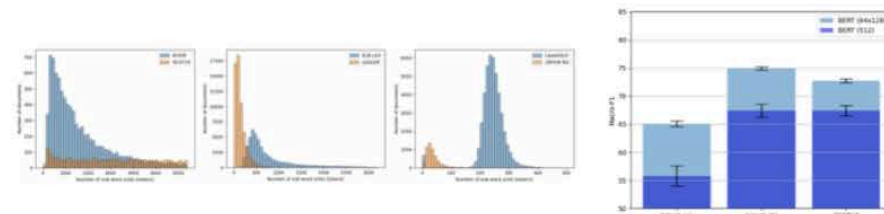
^ζ Illinois Tech – Chicago Kent College of Law, United States

THE LEGAL NLP BENCHMARK



Method	ECtHR (A)*		ECtHR (B)*		SCOTUS*		EUR-LEX		LEDGAR		UNFAIR-ToS		CaseHOLD
	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁ / m-F ₁
TFIDF+SVM	64.5	51.7	74.6	65.1	78.2	69.5	71.3	51.4	87.2	82.4	95.4	78.8	n/a
BERT	71.2	63.6	79.7	73.4	68.3	58.3	71.4	57.2	87.6	81.8	95.6	81.3	70.8
RoBERTa	69.2	59.0	77.3	68.9	71.6	62.0	71.9	57.9	87.9	82.3	95.2	79.2	71.4
DeBERTa	70.0	60.8	78.8	71.0	71.1	62.7	72.1	57.4	88.2	83.1	95.5	80.3	72.6
Longformer	69.9	64.7	79.4	71.7	72.9	64.0	71.6	57.7	88.2	83.0	95.5	80.9	71.9
BigBird	70.0	62.9	78.8	70.9	72.8	62.0	71.5	56.8	87.8	82.6	95.7	81.3	70.8
Legal-BERT	70.0	64.0	80.4	74.7	76.4	66.5	72.1	57.4	88.2	83.0	96.0	83.0	75.3
CaseLaw-BERT	69.8	62.9	78.8	70.3	76.6	65.9	70.7	56.6	88.3	83.0	96.0	82.3	75.4

Table 3: Test results for all examined models across LexGLUE tasks. In starred datasets, we use the hierarchical variant of each model, except for Longformer and BigBird, discussed in Section 4.2.



buceri.us/lexglue

Results per Data Set

Method	ECtHR (A)*		ECtHR (B)*		SCOTUS*		EUR-LEX		LEDGAR		UNFAIR-ToS		CaseHOLD
	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁ / m-F ₁
TFIDF+SVM	64.5	51.7	74.6	65.1	78.2	69.5	71.3	51.4	87.2	82.4	95.4	78.8	n/a
BERT	71.2	63.6	79.7	73.4	68.3	58.3	71.4	57.2	87.6	81.8	95.6	81.3	70.8
RoBERTa	69.2	59.0	77.3	68.9	71.6	62.0	71.9	57.9	87.9	82.3	95.2	79.2	71.4
DeBERTa	70.0	60.8	78.8	71.0	71.1	62.7	72.1	57.4	88.2	83.1	95.5	80.3	72.6
Longformer	69.9	64.7	79.4	71.7	72.9	64.0	71.6	57.7	88.2	83.0	95.5	80.9	71.9
BigBird	70.0	62.9	78.8	70.9	72.8	62.0	71.5	56.8	87.8	82.6	95.7	81.3	70.8
Legal-BERT	70.0	64.0	80.4	74.7	76.4	66.5	72.1	57.4	88.2	83.0	96.0	83.0	75.3
CaseLaw-BERT	69.8	62.9	78.8	70.3	76.6	65.9	70.7	56.6	88.3	83.0	96.0	82.3	75.4

Table 3: Test results for all examined models across LexGLUE tasks. In starred datasets, we use the hierarchical variant of each model, except for Longformer and BigBird, discussed in Section 4.2.

Overall Aggregated Scores

Method	A-Mean		H-Mean		G-Mean	
	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁	μ -F ₁	m-F ₁
BERT	77.8	69.5	76.7	68.2	77.2	68.8
RoBERTa	77.8	68.7	76.8	67.5	77.3	68.1
DeBERTa	78.3	69.7	77.4	68.5	77.8	69.1
Longformer	78.5	70.5	77.5	69.5	78.0	70.0
BigBird	78.2	69.6	77.2	68.5	77.7	69.0
Legal-BERT	79.8	72.0	78.9	70.8	79.3	71.4
CaseLaw-BERT	79.4	70.9	78.5	69.7	78.9	70.3

Table 4: Test scores aggregated over tasks: arithmetic (A), harmonic (H), and geometric (G) mean.

ChatGPT may Pass the Bar Exam soon, but has a Long Way to Go for the LexGLUE benchmark

Ilias Chalkidis

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ilias.chalkidis[at]di.ku.dk

Domain Specificity
Scalability
Cost
Alignment

Abstract

Following the hype around OpenAI's ChatGPT conversational agent, the last straw in the recent development of Large Language Models (LLMs) that demonstrate emergent unprecedented zero-shot capabilities, we audit the latest OpenAI's GPT-3.5 model, 'gpt-3.5-turbo', the first available ChatGPT model, in the LexGLUE benchmark in a zero-shot fashion providing examples in a templated instruction-following format. The results indicate that ChatGPT achieves an average micro-F1 score of 49.0% across LexGLUE tasks, surpassing the baseline guessing rates. Notably, the model performs exceptionally well in some datasets, achieving micro-F1 scores of 62.8% and 70.1% in the ECtHR B and LEDGAR datasets, respectively. The code base and model predictions are available for review on https://github.com/coastalcp/zeroshot_lexglue.

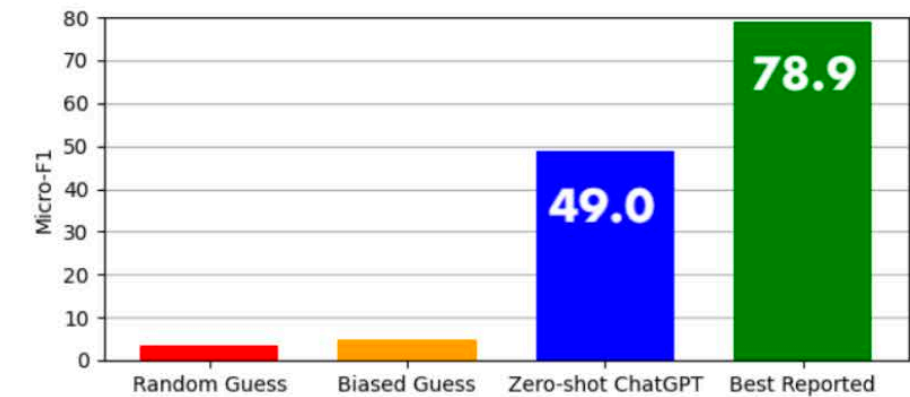


Figure 1: Averaged performance on LexGLUE.

capabilities that cover common sense knowledge, but also extend to specialized domains such as problem solving, programming/debugging, and law, as presented by many users in the web.

Recently, [Bommarito and Katz \(2022\)](#) audited several variants of OpenAI's GPT 2/3/3.5 models in legal bar exam questions, and found that the most advanced -at the time- model ('text-davinci-003') achieves an accuracy of 50.3% on a complete practice exam, significantly in excess of the 25% baseline guessing rate, while

Offene Fragen

- Wie wichtig sind domänenspezifische Modelle gegenüber allgemeinen Foundation Modellen?
- Wie skalierbar sind diese Ansätze in Zukunft?
- Wie entwickeln sich die Kosten?
- Wie sehr wird die Performance eingeschränkt, wenn unerwünschte Ergebnisse vermieden werden sollen?
- Wie gut funktionieren die Modelle in anderen Sprachen als Englisch?

Einschränkungen

GPT/OpenAI only

Zero-Shot

Kein Prompt-Engineering

Kein spezifisches Training

Use Cases

Experiments run over the summer include:

- Data Protection Advice
- Flight Compensation
- In-House Case Management
- Real Estate Advice

Eslava Suarez, Tania 19...
Seite 1 von 183

Large Language Models in Data Protection Consulting: Exploring Their Current and Potential Use

A thesis submitted to the Bucerius Master of Law and Business Program in partial fulfillment of the requirements for the award of the Master of Law and Business ("MLB") Degree

Tania Vanessa Eslava Suárez
July 19, 2023

14.351 words
Supervisor 1: Prof. Dirk Hartung
Supervisor 2: Prof. Dr. Dries Faems

Streubel, Laura 200723...
1 Seite

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The Impact of Generative Artificial Intelligence on Legal Departments

A thesis submitted to the Bucerius Master of Law and Business Program in partial fulfillment of the requirements for the award of the Master of Law and Business ("MLB") Degree

Laura Streubel
July 19, 2023

14,098 words
Supervisor 1: Dirk Hartung
Supervisor 2: Daniel Martin Katz

**The tools
excelled
expectations
across the board.**

**Examples from
the past 12
months**

ONE SHOT

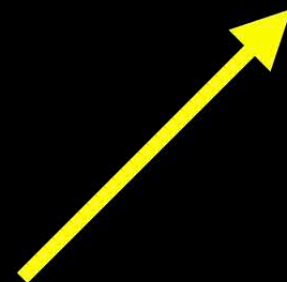
(RETRIEVAL AUGMENTATION)

**ORIGINAL
QUERY**
(COULD BE
CONSTRUCTED ON VIA
'PROMPT ENGINEERING')



**ENHANCE THIS
QUERY USING
CONTEXTUALLY
RELEVANT
INFORMATION**

(VARIOUS TECHNIQUES ARE
POSSIBLE SUCH AS USING
EMBEDDINGS AND STORED
IN A VECTOR DATABASE)



**REVISED
QUERY**
(QUERY &
CONTEXTUAL
INFO)




ENTERED INTO A
FOUNDATIONAL
MODEL



OUTPUT*

**NOTE OUTPUT CAN BE
FURTHER ENHANCED IN FEW
SHOT EXAMPLES

Browser window showing LinkedIn.com. The page features the LinkedIn logo, a "Mitglied werden" button, and an "Einloggen" button.



Generated by <https://deepai.org/machine-learning-model/old-style-generator>

#ChatGPT as #Legal Briefwriting Tool

Damien Riehl
VP, Solutions Champion
Veröffentlicht: 29. Jan. 2023

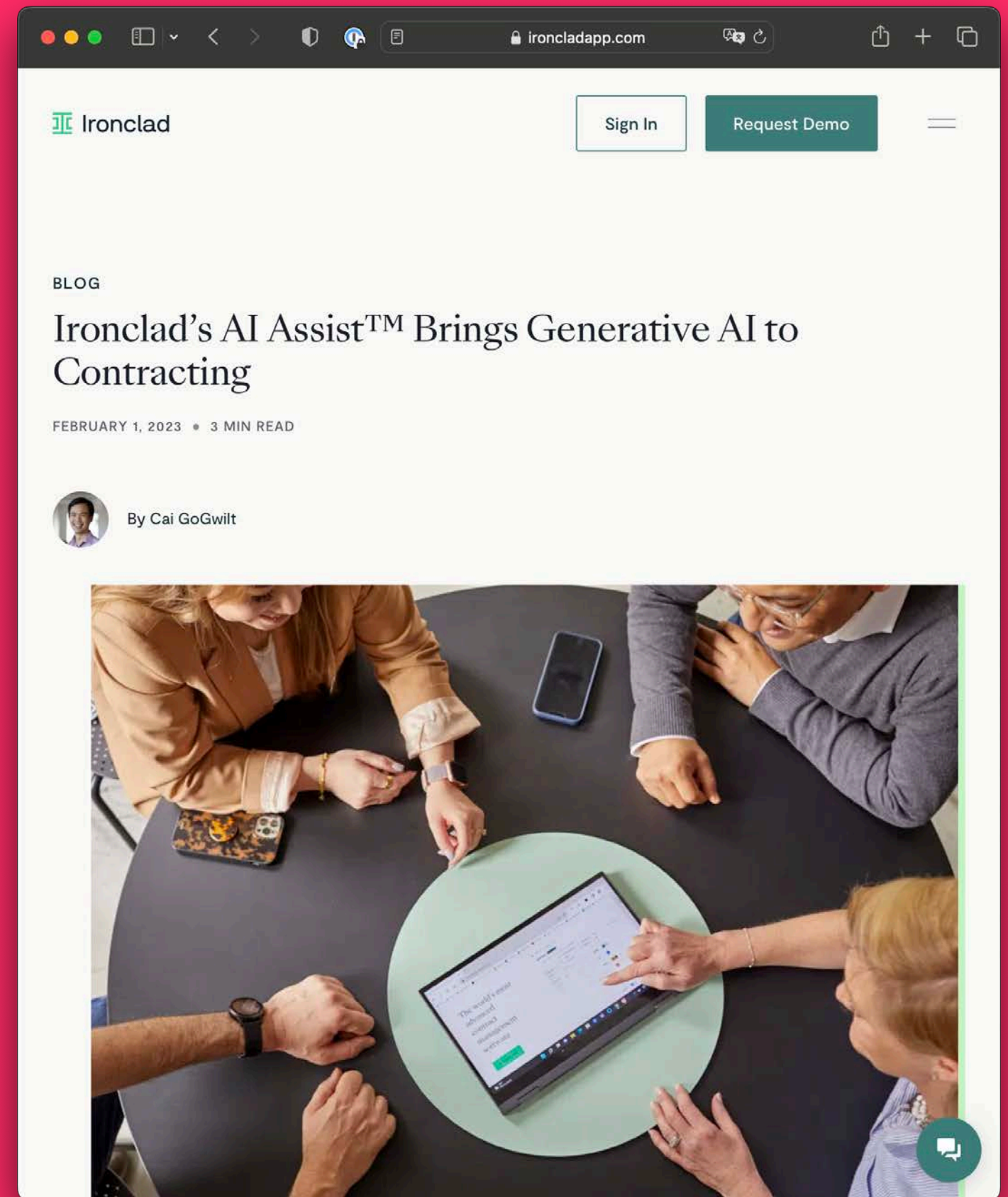
+ Folgen

A theorem that is playing out today — and will likely continue for the foreseeable future:
(Machines + Humans) > ((Humans) OR (Machines)) [#Gestalt #Centaur]

Gefällt mir · Kommentar · Teilen · 85 · 22 Kommentare

"The results with AI Assist™ have been beyond what we could even have imagined. An initial pass at contract redlining usually takes about 40 minutes. With AI Assist™, we're seeing users complete them in two minutes."

Jason Boehmig, Ironclad CEO



The screenshot shows a web browser window with the URL ironcladapp.com. The page features the Ironclad logo, a 'Sign In' button, and a 'Request Demo' button. Below the navigation is a 'BLOG' section with the article title 'Ironclad's AI Assist™ Brings Generative AI to Contracting'. The article is dated 'FEBRUARY 1, 2023' and has a '3 MIN READ' indicator. The author is identified as 'By Cai GoGwilt'. The main content area displays a photograph of four business professionals (three women and one man) gathered around a dark table, looking at a laptop screen. The laptop screen shows a software interface with text and a green button. A small chat icon is visible in the bottom right corner of the image.



Draft contracts 10x faster with AI

Spellbook uses GPT-4 to review and suggest language for your contracts, right in Microsoft Word.

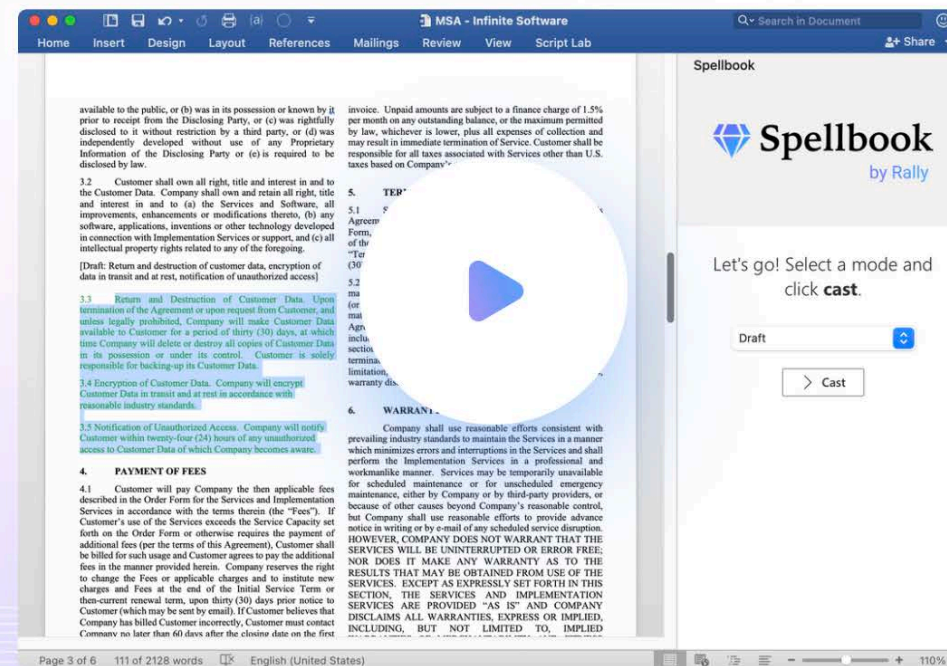
Name

Work email

Are you a legal professional?

Firm or company size

Start your free trial →



2,000+ lawyers use Spellbook to
automate legal work

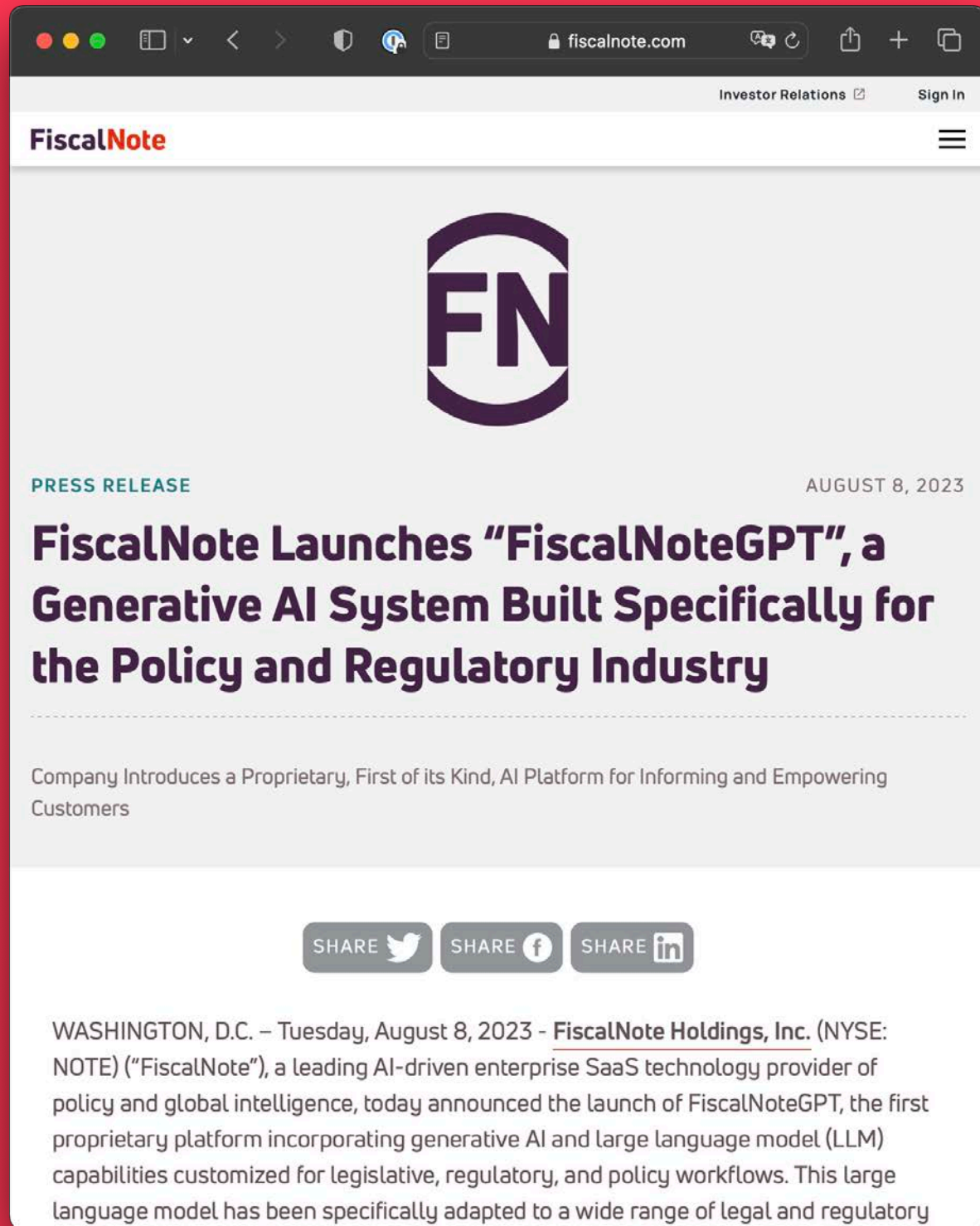
RENNO & CO

KMSC
LAW LLP

CARBON
CHEMISTRY

C|L
CUNNINGHAMLEGAL





Use Case: Regulatory Monitoring FiscalNoteGPT et al.

Use Case: Patent Drafting e.g. qatent.com

Midjourney Prompt: digital art inspired by a patent on a new fishing rod

ChatGPT Drafts A Patent Application

Parker Hancock
Senior Associate @ Baker Botts | Patent Litigation, AI, Cybersecurity
Veröffentlicht: 1. Juni 2023

Disclaimer: The statements and views expressed herein are my own and do not reflect those of my law firm or its clients. They are intended for general information purposes only and do not constitute legal advice or a legal opinion

One of the big ideas that I don't believe many lawyers understand about LLM's is the

Gefällt mir · Kommentar · Teilen

7 · 2 Kommentare

harvey.ai

Harvey. Security Blog Careers **23** Contact Sales

Harvey.

Unprecedented legal AI

thomsonreuters.com

THOMSON REUTERS® Legal Tax & Accounting Trade & Supply Risk & Fraud News & Media Books Developers

AUGUST 17, 2023

Thomson Reuters Completes Acquisition of Casetext, Inc.

TORONTO, August 17, 2023 – Thomson Reuters Corporation (“Thomson Reuters”) (NYSE / TSX: TRI) announced today that it has closed on its [previously announced](#) acquisition of Casetext, Inc. (“Casetext”), a provider of technology for legal professionals, for a purchase price of \$650 million in cash.

Media contacts →

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f e in t p

Founded in 2013, Casetext uses advanced AI and machine learning to build technology for legal professionals, creating solutions that help them work more efficiently and provide higher-quality

lexisnexis.com

Lexis+ AI Search Draft Summarize Analyze Trending AI Principles

Lexis+ AI™

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Using the fastest legal generative AI with conversational search, drafting, summarization, document analysis, and linked hallucination-free legal citations.

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Vincent AI: The Future of Legal Research

Meet Vincent AI, an award-winning legal research assistant from vLex, transforming the way legal professionals tackle research. Experience efficiency, accuracy, and comprehensive legal insights like never before.

Join the waitlist

**Final stretch:
What is a
technology &
data strategy?**

**We are in an
early market.**

Browser: casetext.com

casetext

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CoCounsel does document review, legal research memos, deposition preparation, and contract analysis in minutes—with results you can trust.

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☰

Browser: harvey.ai

Harvey.

Security Blog Careers ⁷ [Contact Sales](#)

Harvey.

Unprecedented legal AI

[Join the Waitlist →](#)

Security Blog Careers ⁷ Legal

Fear, Uncertainty, Doubts

vs.

Fear of Missing Out

The screenshot shows a web browser displaying a legaltech news article. The browser's address bar shows 'law.com'. The page header includes a navigation menu with 'MENU' and 'SEARCH', the 'ALM | LAW.COM' logo, and a 'MY LAW.COM' button with a 'NEW' badge. A 'LAW.COM PRO' button is also visible. The main content area is titled 'Legaltech news' and features a sub-navigation bar with 'Law Topics', 'LegalTech Event', 'LegalWeek Event Perspectives', and 'All Sections'. The article is a Q&A piece by Isha Marathe, dated March 21, 2023, at 03:11 PM. The article title is 'DLA Piper's Chief Data Scientist: Firms Resisting AI Are 'Dinosaurs Before the Meteorite Hit''. The author's name, 'Isha Marathe', is followed by a blue checkmark icon and the title 'Legal Tech Reporter'. A copyright symbol is located at the bottom of the article content area.

MENU SEARCH

ALM | LAW.COM

MY LAW.COM NEW

LAW.COM PRO

Legaltech news

Law Topics LegalTech Event LegalWeek Event Perspectives All Sections

Q&A


DLA Piper's Chief Data Scientist: Firms Resisting AI Are 'Dinosaurs Before the Meteorite Hit'

While seeing generative AI becoming an essential technology in the legal market, DLA Piper's new chief data scientist Bennett Borden also noted that human review of AI outputs is likely to become more and more complex in the coming days.

März 21, 2023 at 03:11 PM

7 minute read

Artificial Intelligence

 **Isha Marathe** Legal Tech Reporter

©

**Build, Assemble
or Buy**

**Firms won't build on
their own.**

**But can firms
assemble or
should they
buy?**



**API Arbitrage
is legitimate
business.**

**But don't be
stupid
money.**

How do you

- Collect
- Regularize
- Pre-Process

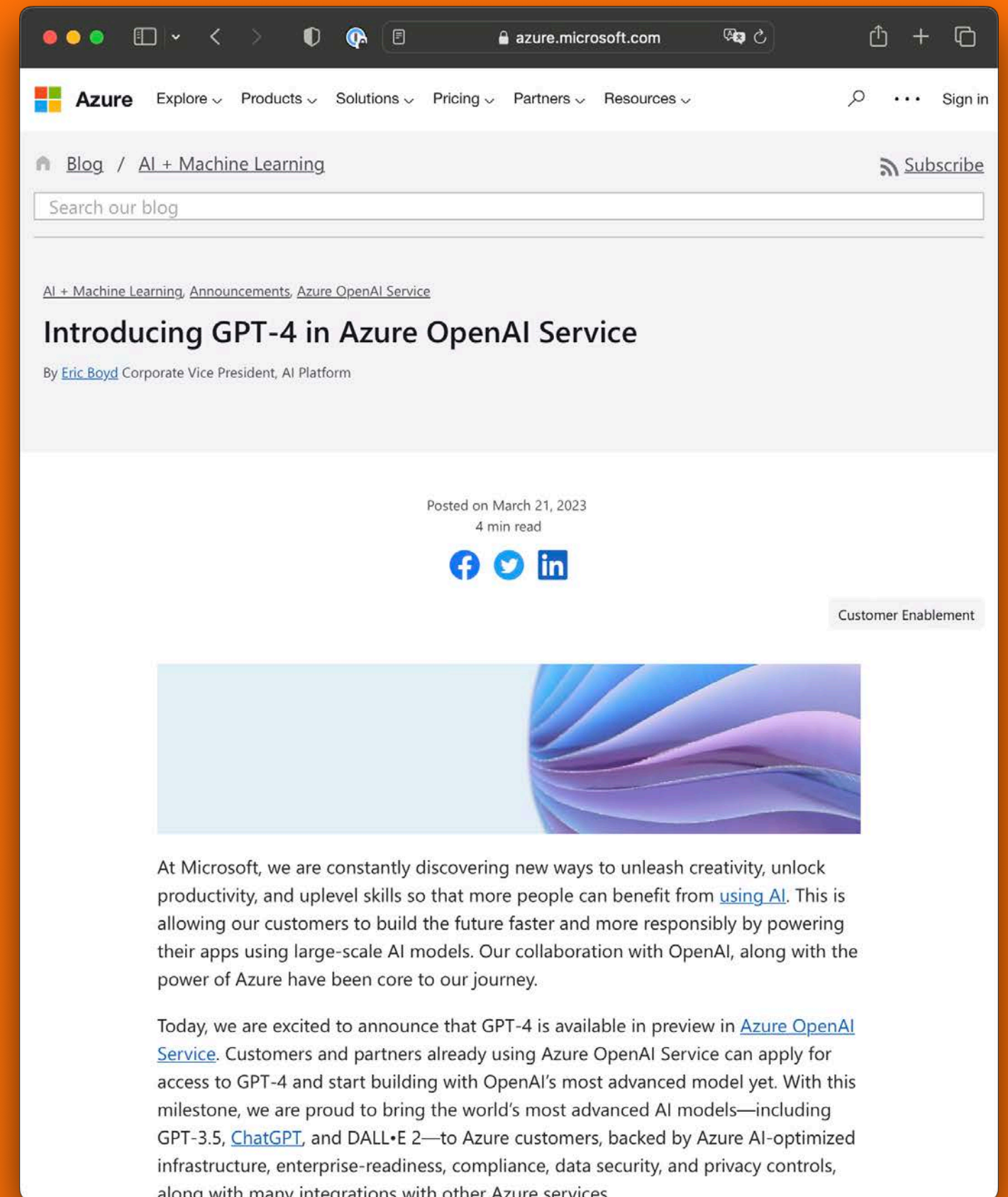
your data for use within these systems?

**Training, Fine-
Tuning and
Augmentation all
require data.**

In a very specific form...

**Is your
organization
set up for this?**

Here is
the most
probable
answer:



The image shows a screenshot of a web browser displaying the Azure blog. The browser's address bar shows 'azure.microsoft.com'. The page header includes the Azure logo and navigation links: 'Explore', 'Products', 'Solutions', 'Pricing', 'Partners', and 'Resources'. The breadcrumb trail is 'Blog / AI + Machine Learning', and there is a 'Subscribe' button. A search bar is present with the text 'Search our blog'. The main content area features the article title 'Introducing GPT-4 in Azure OpenAI Service' by Eric Boyd, Corporate Vice President, AI Platform. The article is dated 'Posted on March 21, 2023' and has a '4 min read' duration. Social media sharing icons for Facebook, Twitter, and LinkedIn are visible. A 'Customer Enablement' tag is located on the right side of the article. Below the text is a decorative image with blue and purple wavy patterns.

Azure Explore Products Solutions Pricing Partners Resources Sign in

Blog / AI + Machine Learning Subscribe

Search our blog

AI + Machine Learning, Announcements, Azure OpenAI Service

Introducing GPT-4 in Azure OpenAI Service

By [Eric Boyd](#) Corporate Vice President, AI Platform

Posted on March 21, 2023
4 min read

[f](#) [t](#) [in](#)

Customer Enablement

At Microsoft, we are constantly discovering new ways to unleash creativity, unlock productivity, and uplevel skills so that more people can benefit from [using AI](#). This is allowing our customers to build the future faster and more responsibly by powering their apps using large-scale AI models. Our collaboration with OpenAI, along with the power of Azure have been core to our journey.

Today, we are excited to announce that GPT-4 is available in preview in [Azure OpenAI Service](#). Customers and partners already using Azure OpenAI Service can apply for access to GPT-4 and start building with OpenAI's most advanced model yet. With this milestone, we are proud to bring the world's most advanced AI models—including GPT-3.5, [ChatGPT](#), and DALL•E 2—to Azure customers, backed by Azure AI-optimized infrastructure, enterprise-readiness, compliance, data security, and privacy controls, along with many integrations with other Azure services.

Strategic Considerations

Top Down

Medium to Low

Complexity Tasks

ALSP, LPO, Legal Ops, Repetition

HR

**Do you have the
right people and
training?**

Bottom up

Individual and Team

Is everyone

enabled to handle

tasks using AI?

Regulation

- Privacy
- Cyber Security
- Copyright
- Professional Ethics
- AI Regulation



Bildnachweis: Behörde für Wirtschaft und Innovation; unter Nutzung von KI

**Studie zum verantwortungsvollen
Umgang mit künstlicher Intelligenz,
insbesondere in kleinen und mittleren
Unternehmen**



Legal Data Operating Systems

Outro

This is not the story

nytimes.com


Lawyer Who Used ChatGPT Faces Penalty for Made Up Citations - The New York Times

A.I. and Chatbots > Chatbot Prompts to Try Test A.I.'s Literary Skills Spot the A.I. Image What Are the Dangers of A.I.? How 35 Real People Use A.I.

Lawyer Who Used ChatGPT Faces Penalty for Made Up Citations

A judge may sanction the lawyer, Steven A. Schwartz, for submitting opinions and citations invented by the chat bot.

Give this article



Steven A. Schwartz, who has called the ChatGPT episode "deeply embarrassing" must explain himself to a federal judge. Jefferson Siegel for The New York Times

By Benjamin Weiser

June 8, 2023, 3:00 a.m. ET

wired.com

WIRED BACKCHANNEL BUSINESS CULTURE GEAR IDEAS SCIENCE SECURITY MY ACCOUNT RENEW

CHRIS STOKEL-WALKER BUSINESS FEB 21, 2023 10:00 AM

Generative AI Is Coming For the Lawyers

Large law firms are using a tool made by OpenAI to research and write legal documents. What could go wrong?




ILLUSTRATION: JAMES MARSHALL: GETTY IMAGES

DAVID WAKELING, HEAD of London-based law firm Allen &

FEATURED VIDEO

**The story is
productivity**

12% more tasks

25% quicker

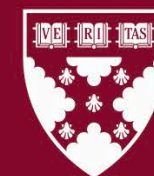
**40% increase in
quality**

Working Paper 24-013

Navigating the Jagged Technological
Frontier: Field Experimental Evidence
of the Effects of AI on Knowledge
Worker Productivity and Quality

Fabrizio Dell'Acqua
Edward McFowland III
Ethan Mollick
Hila Lifshitz-Assaf
Katherine C. Kellogg

Saran Rajendran
Lisa Kraymer
François Candelon
Karim R. Lakhani



Harvard
Business
School

See how Orangetheory completed a 6-month project in half the time with Ironclad AI

Read more



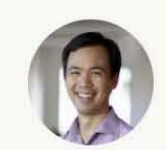
Sign In

Request Demo

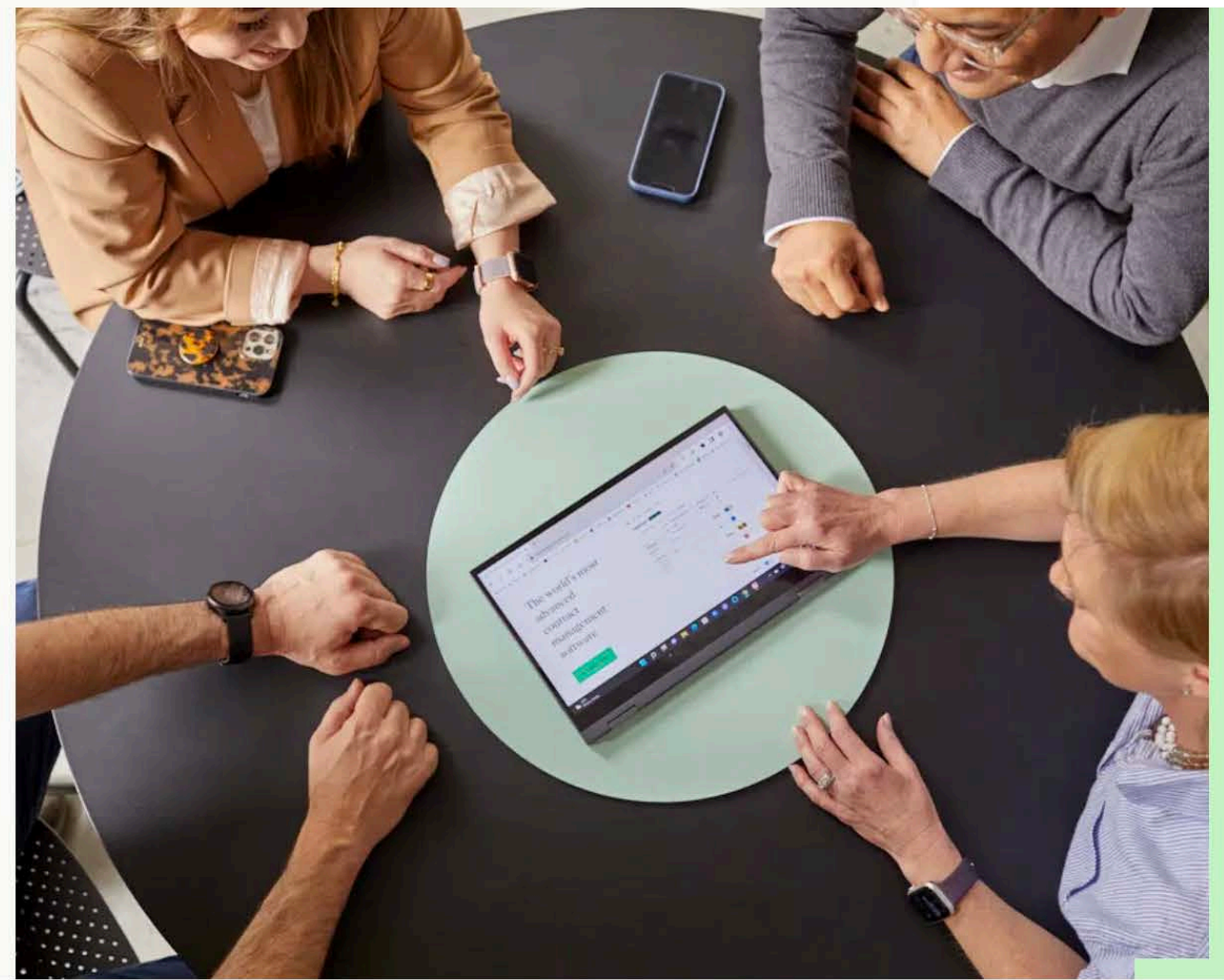
BLOG

Ironclad's AI Assist™ Brings Generative AI to Contracting

FEBRUARY 1, 2023 • 3 MIN READ



By Cai GoGwilt



**We live in the
best of all
possible
worlds.**