

Legal (and Ethical) Aspects of Generative AI and their impact on Digital Humanities

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*AI, big data, and knowledge appropriation
and protection (US and Canada)*

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Outline

- **Three themes on AI and digital scholarship activity**
 - **with illustrative legal updates**
- **Brief legislative update—Canada**
- **Brief legislative update—U.S.**
- **Some readings elaborating**

Your research activities can be *outputs* of AI processes

Some legal implications...

Copyright-protected works may form some part of training data for AI models or machine learning tools and processes that researchers then use in their research work.

- Here, we can think of models that the researcher might not have created, or use of acquired training data for model training purposes.
- Presumably, any claim would be against the creator of the model, the “ingestor” of the copyright-protected works, and not you as an individual researcher

Your research activities can be *outputs* of AI processes

Numerous cases in the US—e.g.,

- Last week a federal district court dismissed state law claims about unfair competition in class action by authors against OpenAI; copyright infringement claim proceeds
 - Tremblay et al v OpenAI
- Similar cases recently filed by RIAA and training on music where rights holders are some major record labels
- New York Times case ongoing in US federal court—this one is a little different insofar as some identifiable output text is verbatim input from NYT articles.
 - More a direct copyright infringement issue

Your research activities can be *outputs* of AI processes—and then *also inputs to models*

Likewise, researchers may generate text, images, or other data

It may, with or without researcher's express knowledge or agreement, contribute ex post to enhance development of models used for commercial output generation

Or researcher gives agreement to be able to use the resource or tool or model

- We may concede: consented to a terms of use, a license—a contract
- Or, we may protest: agreement is not true consent because we have no bargaining power whatsoever and no role in drafting the contract
- Use of our generated data is ex post—it did not exist when we clicked “agree”; perhaps it's more valuable than we could have foreseen

Your research activities can be *outputs* of AI processes—and then *also inputs to models*

Note: Click-wrap ToU cases are contract law so generally don't consider copyright law

But

A federal district court dismissed a suit by company formerly known as Twitter against a data-scraping company

- Complaints included state law claims resting on the ToU the data-scrafer agreed to via click-wrap, browse-wrap
- Court said ToU raised issues that were in the same substance as copyright law
- US federal copyright preempts similar claims based on state law

X Corp. v. Bright Data Ltd., C 23-03698 WHA, (N.D. Cal. May. 9, 2024)

Your knowledge-productive activities, body of work, can be *inputs* in (someone's) creation and use of AI tools:

Potential legal implications? Ethical implications?

Minimally addressed in legal regimes: researchers' iterative and knowledge-driven use of various tools may contribute to building and refinement of AI processes underlying them.

Here we are less concerned about datasets, acquired or created or built or synthetic.

We're thinking about uses and processes that entail your open data, your openly available produced knowledge datafied—likely along with the knowledge of many others—datafied, become source material.

I think many of us used to say, go ahead, use it! I'm honoured! Build on it!

Your knowledge-productive activities, body of work, can be *inputs* in (someone's) creation and use of AI tools:

But now—with rampant commercial AI we can see disparate equities and goals

- Some characterizations: appropriation, knowledge exploitation, digital capitalism
- Less easily describable in existing intellectual property legal categories
- Current conversations about copyright subsistence, fair dealings take new shape
- Google Books, HathiTrust cases about corpora: outcomes seen as victories for research-forward use
- Now, revisit that law against backdrop of digital capitalism and data commodification
 - Their conceptions of intellectual property did not conceive of profitable, commercial exploitation of datafied knowledge

Legal updates—Canada

Most recent development in Canada regarding copyright and AI, on the issue of whether copyright can subsist in the output of generative AI or where generative AI is used.

- the current presumption is “no”
- but it hasn’t been tested in court.
- Plain reading of the Copyright Act suggests “no”

Samuelson-Glushko Canadian Internet Policy and Public Interest Clinic (“CIPPIC”) v Ankit Sahni:

- recent filing in federal court—seeking declaration of no copyright in the image, Suryast; or alternatively, if there is copyright, the registrant Sahni its sole author

(Suryast = image generated by RAGHAV AI Painting App image generator; Respondent = Ankit Sahni, intellectual property lawyer in New Delhi who generated the contested image using RAGHAV)

Legislation in Canada

Current legislation is in progress, called Bill C-27:

- Makes a few changes to statutes on personal information, etc
- But the interesting part is Part 3 which proposes the **Artificial Intelligence and Data Act**

“to regulate international and interprovincial trade and commerce in artificial intelligence systems by requiring that certain persons adopt measures to mitigate risks of harm and biased output related to high-impact artificial intelligence systems. That Act provides for public reporting and authorizes the Minister to order the production of records related to artificial intelligence systems. That Act also establishes prohibitions related to the possession or use of illegally obtained personal information for the purpose of designing, developing, using or making available for use an artificial intelligence system and to the making available for use of an artificial intelligence system if its use causes serious harm to individuals.”

Canada–Bill C-27 and AIDA

A useful companion document explains timelines, the consultation process, and how the act would work to achieve interoperability with, e.g. the EU AI Act.

If it goes forward it will be in force no earlier than 2025:

The Artificial Intelligence and Data Act (AIDA) – Companion document

<https://ised-isde.canada.ca/site/innovation-better-canada/en/artificial-intelligence-and-data-act-aida-companion-document#s7>

US—Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence

Sets out a framework; eight principles:

- Artificial Intelligence must be safe and secure.
- Promoting responsible innovation, competition, and collaboration will allow the United States to lead in AI and unlock the technology's potential to solve some of society's most difficult challenges.
- The responsible development and use of AI require a commitment to supporting American workers.
- Artificial Intelligence policies must be consistent with my Administration's dedication to advancing equity and civil rights.

...

US—Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence

...eight principles:

- The interests of Americans who increasingly use, interact with, or purchase AI and AI-enabled products in their daily lives must be protected.
- Americans' privacy and civil liberties must be protected as AI continues advancing.
- It is important to manage the risks from the Federal Government's own use of AI and increase its internal capacity to regulate, govern, and support responsible use of AI to deliver better results for Americans.
- The Federal Government should lead the way to global societal, economic, and technological progress, as the United States has in previous eras of disruptive innovation and change.

Twenty more bills in the U.S.

Twenty bills now introduced in the US in the last two months, proposing to do things like:

- authorizing the National Science Foundation to support research on the development of AI-enabled efficient technologies
- improve educational efforts related to AI literacy at the K through 12 level.
- facilitates the growth of multidisciplinary teams that can advance the development and training of safe and trustworthy AI systems.
- develop a national strategy regarding AI consumer literacy and to conduct a national AI consumer literacy program.
- ...

<https://www.brennancenter.org/our-work/research-reports/artificial-intelligence-legislation-tracker>

Some reading on knowledge appropriation

Haochen Sun. “The Irresponsibility of Technology Companies.” *Technology and the Public Interest*. Cambridge: Cambridge University Press, 2022. 104–120.

Elettra Bietti, Consent as a Free Pass: Platform Power and the Limits of the Informational Turn, 40 Pace L. Rev. 310 (2020)
DOI: <https://doi.org/10.58948/2331-3528.2013>

Julie E. Cohen, “The Regulatory State in the Information Age.” *Between Truth and Power: The Legal Constructions of Informational Capitalism* (New York, 2019; online edn, Oxford Academic, 24 Oct. 2019), <https://doi.org/10.1093/oso/9780190246693.003.0007>.

Julie E. Cohen, Law for the Platform Economy, 51 U.C. Davis L. Rev. 133-2014 (2017)

Miguel Angelo d. de Sousa, The shift of Artificial Intelligence research from academia to industry: implications and possible future directions. *AI & Soc* (2024). <https://doi.org/10.1007/s00146-024-01924-0>

Cecilia Rikap. *Capitalism, Power and Innovation: Intellectual Monopoly Capitalism Uncovered* (1st ed.). Routledge, 2021. <https://doi-org.proxy.library.cornell.edu/10.4324/9780429341489>

*Assessing the Impact of the
European Union AI Act
on Digital Research and Education*

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European Union Artificial Intelligence Act

- Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act): <https://eur-lex.europa.eu/eli/reg/2024/1689/oj>
- In effect since August 1, 2024.
- Specific measures will become valid legal regulations over the next two years, with some already starting 6 months after publication (February 1, 2025: e.g. cessation of illegal AI systems, AI literacy obligation)
- For all the hype, China was quicker! "Interim regulation on the management of generative Artificial Intelligence (AI) services", August 15, 2023.

European Union Artificial Intelligence Act

'AI system' means a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments;

[Article 2 (1)]



European Union Artificial Intelligence Act: Research

Explicit **exclusion** for AI systems "developed solely for scientific research and development" to promote innovation in (primarily) university environments.

- exclusion ceases once the AI system is placed "on the market"
- "any research and development activity should be carried out in accordance with recognised ethical and professional standards for scientific research and should be conducted in accordance with applicable Union law."
(e.g. Text- and Data Mining copyright exceptions, GDPR)
- "The right to privacy and to protection of personal data must be guaranteed throughout the entire lifecycle of the AI system." (e.g. Data Minimization, Security by Design)

> Challenge: thresholds e.g. innovation system vs. market system, research vs. education

European Union Artificial Intelligence Act: Research

- **Common European Data Spaces** "to provide trustful, accountable and non-discriminatory access to high-quality data"
- **AI literacy** for any developers and/or users of an AI system as obligation
- **Transparency:** Providers shall ensure that **AI systems are recognizable** (e.g. chatbots) and that the **outputs of the AI system are marked in a machine-readable format and detectable as artificially generated** or manipulated.
 - OpenAI has watermark system ready, but has not employed it yet due to user feedback (loss of market and revenue)
(<https://openai.com/index/understanding-the-source-of-what-we-see-and-hear-online/>)
> parallel situation to when GDPR was introduced: implementation by August 2025

European Union Artificial Intelligence Act: Education

- Use of AI to "promote high-quality digital education and training and to allow all learners and teachers to acquire and share the necessary digital skills and competences, including media literacy, and critical thinking."
- any AI-system used in education is classified as "**high-risk AI systems**" and subject to obligations:
 - risk-management system
 - technical documentation
 - record keeping
 - transparency (code and training data!) and instructions
 - human oversight
 - rights impact assessment

Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law from May 17, 2024

(<https://search.coe.int/cm?i=0900001680afb11f>)

Safe innovation: "With a view to fostering innovation while avoiding adverse impacts on human rights, democracy and the rule of law [establish] controlled environments for developing, experimenting and testing artificial intelligence systems"

- Protection of Human Rights
- Transparency and Oversight
- Accountability and Responsibility
- Equality and non-discrimination
- Privacy and data-protection
- Risk and impact management framework
- Digital literacy and skills

Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law from May 17, 2024

(<https://search.coe.int/cm?i=0900001680afb11f>)

- Conscious of the accelerating developments in science and technology [...] which **have the potential to promote human prosperity as well as individual and societal well-being**, sustainable development, gender equality and the empowerment of all women and girls [...]
- Concerned that [...] artificial intelligence systems **may undermine human dignity and individual autonomy, human rights, democracy and the rule of law**
- Concerned about the **risks of discrimination in digital contexts** [...], and their potential effect of creating or aggravating inequalities,
- Convinced of the **need to establish** [...] a **globally applicable legal framework setting out common general principles and rules** [...] that effectively preserves shared values and **harnesses the benefits of artificial intelligence for the promotion of these values** in a manner conducive to ...

responsible innovation

AI and the presumption of authorship

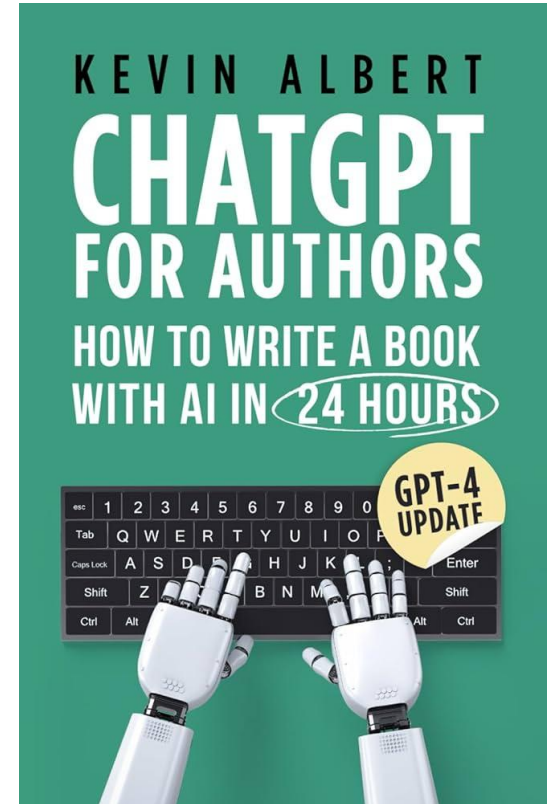
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“Authorship gap” in AI-generated works

- ChatGPT: (co-)author of hundreds of books on Amazon
 - how many books are “secretly” AI-generated?
 - copyfraud – false copyright claim in public domain content
 - presumption of authorship (Article 15(1) Berne Convention, Article 5 of the EU Enforcement Directive) for those whose name “appear on the work in the usual manner”
 - BUT OpenAI ToU: “you are prohibited from (...) representing that Output was human-generated when it was not”



EU's response to the problem: transparency obligation

- EU response: Article 50(2) AI Act:
 - Providers of AI systems, including general-purpose AI systems, generating synthetic audio, image, video or **text** content, shall ensure that the outputs of the AI system are marked in a machine-readable format and detectable as artificially generated or manipulated.
 - Providers shall ensure their technical solutions are effective, interoperable, robust and reliable **as far as this is technically feasible**, taking into account the specificities and limitations of various types of content (...)
 - Recital 133: ...such as watermarks, metadata identifications, cryptographic methods for proving provenance and authenticity of content, logging methods, fingerprints or other techniques, as may be appropriate




*Above the Law: Ethical Imperatives
in the Era of AI-Generated Content*

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Understanding AI's Nature

AI systems lack consciousness:

- No self-awareness. 
- No moral judgments. 
- AI operates on human programming and data. 

Ethical responsibility for AI:

- Responsibility with developers.
- Responsibility with users.
- Ethical considerations in AI development and usage.

Legislation vs. Ethics

Purpose of laws: Aim to ensure safe and ethical use of AI technology.

Limitations and challenges:

- Advances in AI often outpace slow legislative processes.
- AI systems are complex, making it hard for lawmakers to grasp their full scope and ethical issues.
- Laws can be too broad or ineffective due to limited understanding.
- Laws often fail to address AI-specific issues, like extensive data processing and misuse risks.
- Anti-discrimination laws may not cover AI-specific biases effectively.

Need for collaboration:

- Continuous cooperation among lawmakers, tech experts, researchers, and international bodies.
- Goal is to ensure laws are up-to-date, comprehensive, effective, and ethically sound.



Need for Global Ethical Guidelines



- **Importance of global guidelines:**
 - AI's global reach requires unified ethical guidelines to ensure consistency.
 - Issues like data privacy, security, and bias transcend borders.
- **Risks without guidelines:**
 - Ethical marketplace - different countries or companies might adopt varying standards, leading to weaker regulations.
 - Diverse legal frameworks can result in fragmented ethical approaches.
- **Cultural perspectives:**
 - Ethical and moral acceptability varies across cultures, necessitating global standards that respect these differences.
- **Current state:**
 - While some international guidelines exist, they are often too general and don't cover all issues.

Societal Impact of AI

Political impact / manipulations

Public opinion / eg. deepfake technology

Cultural impact / eg. AI-generated art

Authorship & creativity

Need for management:

Developing strategies to regulate and mitigate negative consequences is crucial.

Damage risk

Dr Suwajanakorn, along with colleagues Steven Seitz and Ira Kemelmacher-Shlizerman from the University of Washington, [released a paper](#) in July 2017 describing how they created the fake Obama.



© A fake, AI-generated image that purports to show Donald Trump surrounded by Black people. Image generated by AI.

Robbie Barrat 's “
AI Generated Nude Portrait #7



Bias in AI Algorithms

Definition:

- Bias refers to systematic errors in algorithms caused by unrepresentative training data.

Example:

- Facial recognition technology exhibiting racial or gender biases.

Impact of Bias:

- Distortion of research outcomes:
 - Bias can affect historical and social research analyses.
 - Impact on decision-making processes.
- Need for diverse datasets:
 - Importance of training AI on diverse and representative data.



A recent study from two University of Texas at Dallas researchers and their two colleagues outlined the underlying factors that contribute to race-based deficits in facial recognition accuracy.

<https://news.utdallas.edu/science-technology/racial-bias-facial-recognition-2020/>

The Role of the DH Community in Shaping Ethical Standards

Unique Position:

- Interdisciplinary expertise
- Advocacy for ethics

Key Contributions:

- Developing unbiased AI systems:
- Educational programs
 - Teach public and youth about ethical AI use.
 - Foster critical thinking and ethical awareness.

Key Ethical Imperatives

- Transparency and accountability
- Bias mitigation
- Cultural sensitivity and inclusivity
- Ethical design
- Educational initiatives
- Interdisciplinary collaboration
- Intellectual property and authorship
- Protecting user privacy

Conclusion

- **Strong Laws & Regulations**

➡ Essential for ensuring the safe use of AI.

- **Public Awareness**

➡ Crucial for understanding and engaging with AI ethically.

- **Global Ethical Guidelines**

➡ Necessary for a consistent and fair framework worldwide.

- **Role of the DH Community**

➡ Central in advocating for ethical standards and educating future generations.

Thank You!

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