

# THE INTERSECTION OF ML, GENERATIVE AI, AND INTELLECTUAL PROPERTY LAW

Michael D. Murray

Spears Gilbert Associate Professor of Law  
University of Kentucky, Rosenberg College of Law

**Center for Computational Sciences**

University of Kentucky

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# WHO AM I TO TALK ABOUT AI AND THE LAW

- Full-time professor for 26 years at St. Louis U., Illinois, Valparaiso, Michigan; now at the University of Kentucky in my 8<sup>th</sup> year at the institution
- I've taught in the law schools, graduate schools, and undergraduate programs at these universities.
- **I am the founder and principal investigator of the AI and the Law Project at UK.** Seven researchers (JD students) have joined the lab in Summer 2023 and 2024
- As they say on podcasts, I have put in over 1000 hours of experimenting and practicing with generative AI since Dec. 2022.

# WHAT DO MY LAB AND I DO WITH GENERATIVE AI

- Run experiments with Gen AI for:
  - Testing Gen AI functionality on applied tasks (esp. law and legal method)
  - Running comparative studies of Gen AI systems (e.g., *Artificial Intelligence for Learning the Law: Generative AI for Academic Support in Law Schools and Universities*, 8 Tex. J. L. & Tech. \_\_\_\_ (forthcoming, 2025), <https://ssrn.com/abstract=4564227>)
  - Experimenting with custom instructions, priming, RAG, prompt engineering et al. to try to eliminate confabulations (hallucinations) and achieve accurate reliable results
- Develop teaching materials for Gen AI
  - e.g., *Introduction to Gen AI* (book); *Legal Issues of Gen AI* (course); *Prompt Engineering & Priming in Law* (book chapter)
- Copyright Issues:
  - Why work created with the assistance of Gen AI should be copyrightable (and owned by the human end-user)
    - - *Tools Do Not Create: Human Authorship in the Use of Generative Artificial Intelligence*, 15 Case W. Reserve J.L. Tech. & Internet 76 (2024), <https://ssrn.com/abstract=4501543>
  - Why the training of LLMs is not copyright infringement
    - - *Generative AI Art: Copyright Infringement and Fair Use*, 26 SMU Sci. & Tech. L. Rev. 259 (2023), <https://ssrn.com/abstract=4483539>
- Deepfake issues in right of publicity (NIL), privacy, and trademark law:
  - E.g., *Deepfakes and Dog Toys: First Amendment Defenses under the Rogers Test after Jack Daniel's v. VIP Products*, 58 Ind. L. Rev. \_\_\_\_ (forthcoming, 2024), <https://papers.ssrn.com/abstract=4811359>.
  - *Deceptive Exploitation: Deepfakes, the Rights of Publicity and Privacy, and Trademark Law*, 65 IDEA: L. Rev. Franklin Pierce Center For Intell. Prop. \_\_\_\_ (forthcoming, 2025), <https://ssrn.com/abstract=4981531>.
  - *Legislating Generative Artificial Intelligence: Can Legislators Put a Box Around Pandora?* (work in progress), <https://ssrn.com/abstract=4893177>.
- Law Practice and Ethics Issues

# THE TWO BIG COPYRIGHT ISSUES

- **Property law** determines the right to control and exclude others from “things”
  - **IP law** determines the right to control and exclude from intellectual works
  - **Copyright** focuses on the right to control and prevent others from copying creative original works
- 
- **Issue 1: Copyrightability** of works created with the assistance of generative AI
    - - Necessary to establish Authorship which means Ownership which means control over the works
  - **Issue 2: Infringement or fair use** of works used in the training of LLMs
    - Many works were scraped, no permission was sought or obtained, data from works make transformer-neural network-LLM systems run



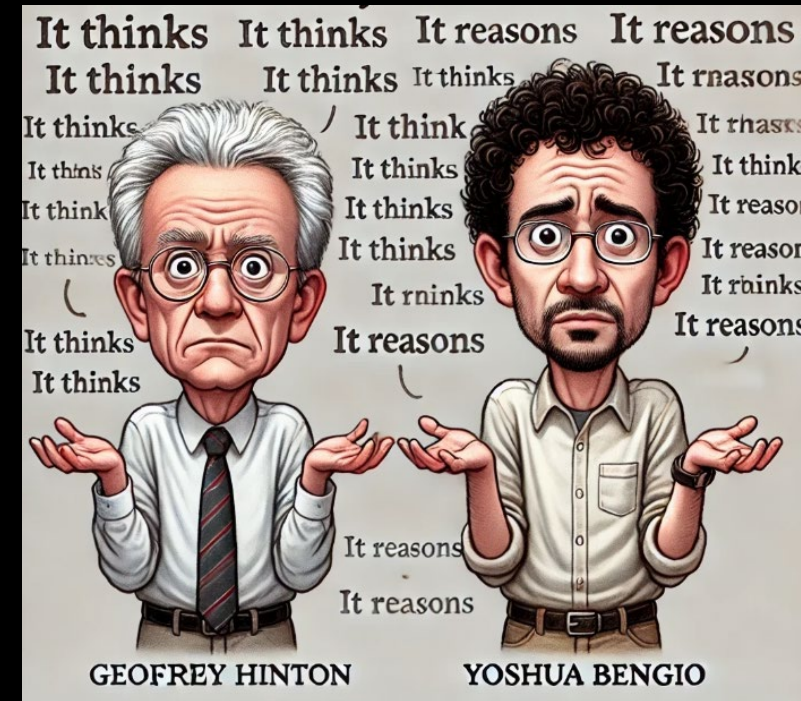
# A SOURCE OF CONFUSION IN THE LAW: METAPHORS

- **What do you do when no one can visualize and few can describe how an advanced technology actually works?**
- **Call it magic** (Arthur C. Clarke)
- **Use analogies and metaphors**
  - - You can't live with 'em but you can't live without 'em (Lakoff and Johnson)
- **BUT CAUTION:** "Metaphors in law are to be narrowly watched, for starting as devices to liberate thought, they end often by enslaving it." (Cardozo in *Berkey*)
- **I am now closely watching the metaphors used with generative AI**



# CONFUSION #1: METAPHORS PERSONIFYING GEN AI

- **The anthropomorphism metaphors have plagued the copyright issues**
- We can thank Hinton and Bengio here
- **So much easier to describe the functioning of gen AI if we treat it like a human**
- - You get to say it thinks, it learns, it trains, it writes, it creates, it reasons
- - It can do practically everything a human can do, including create (i.e. author) infringing artworks and literature
- What happens when you replace metaphor for reality? **The metaphor wins.** It becomes **the reality**. [Widder]
- i.e., Gen AI systems are not like humans, they are humans





# TOPIC 1: AUTHORSHIP AND OWNERSHIP

- The Copyright Office believes generative AI is a human-like autonomous entity that creates art. **It is wrong.**
- In order to deny authorship and ownership to the end user, the Copyright Office must believe that gen AI **autonomously**, or **randomly**, or **automatically** creates artistic works in a manner that negates the human end-user's involvement and authorship.
- But the difference of the new technology is in the manner of control over the medium.



# TOPIC 1: AUTHORSHIP

- **Metaphors confuse how the technology works**
- **It is not magical** – it runs on algorithms
- **It is not deterministic** – the AI developer does not program the AI to spit out infringing works. The end user prompts to create the outputs and determines what happens to them next.
- **AI does not copy or collage source material** – It is stochastic, randomized. It is designed not to copy source material.





# TOPIC 2: A NON-METAPHORICAL VIEW OF AUTHORSHIP AND OWNERSHIP

- **Where is use of gen AI on the scale of artists having direct control over their medium?**
- Jackson Pollock? – drip paintings, action paintings
- Philip-Lorca diCorcia? – motion sensor lights and remote operated camera
- Analog photography? – Cartier Bresson, Dorothea Lange, Ansel Adams, Annie Leibovitz, Cindy Sherman?
- Digital photography and PhotoShop? Other algorithms?
- A lot of artists work with a lot of tools that are not within their direct control – but they **WORK** on the image, **ITERATE** on it, and **ACCEPT** it only when it matches their **VISION** for the work
- **And the same with Gen A.I. assisted works**



# CONFUSION # 2: METAPHORS USED IN LAWSUITS

- **Plaintiffs appear to want to use metaphors to fudge the multiple steps of an infringement case**
  - Prove a copying of a specific registered copyrightable work
    - Direct proof, or access and substantial similarity
  - Prove the allegedly infringing work copied a substantial and material (i.e., not de minimis) portion of the original work
  - Prove defendant's copy is substantially similar to the original and copyrightable portions of plaintiff's work that were copied
- **Plaintiffs no doubt are desperate not to have to produce their allegedly infringed works in discovery—but if they don't, an actual infringement analysis is a farce**





# TOPIC 1: MUST PROVE “COPYING” BUT CAN PROVE “TRAINING”

- **Copying is difficult**

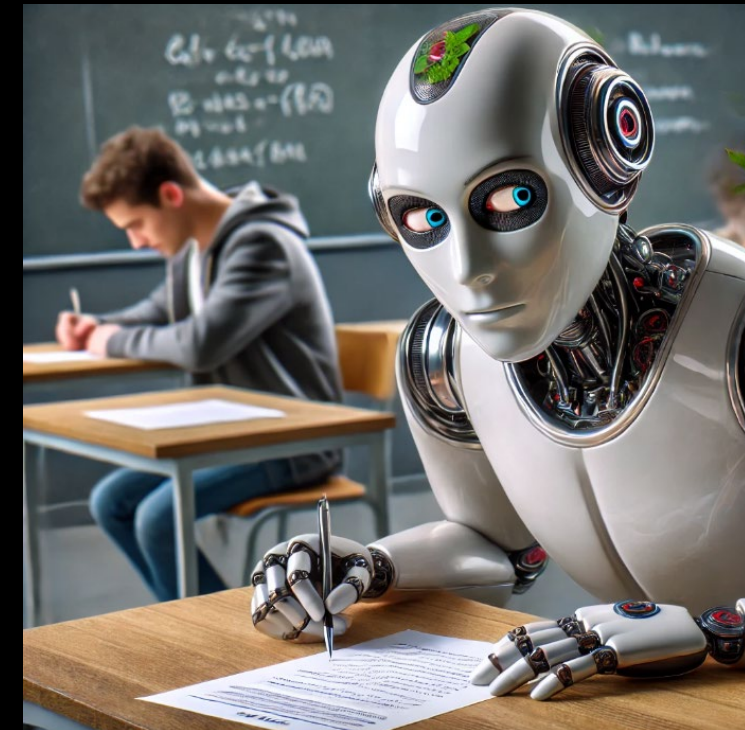
- Who is doing the copying? – the end user?
- What is the nature of the original? – copyrightable elements?
- What is the nature of the copy? – substantial and material copyrightable portions of the original? Substantial similarity?

- **Proving “training” is easier**

- AI developers admit “training,” they admit files were scraped and data was gathered.
- But is it more than a **de minimis** amount of any file from the internet?

- **Proving “downloading” is easier**

- Digital media forced copyright law to hold that downloading digital files is a form of copying of the files.
- Is that the same as downloading files to obtain data from the files when no actual image files or text files are duplicated or reconstituted?





## TOPIC 2: METAPHORS THAT CONFUSE “COPYING”

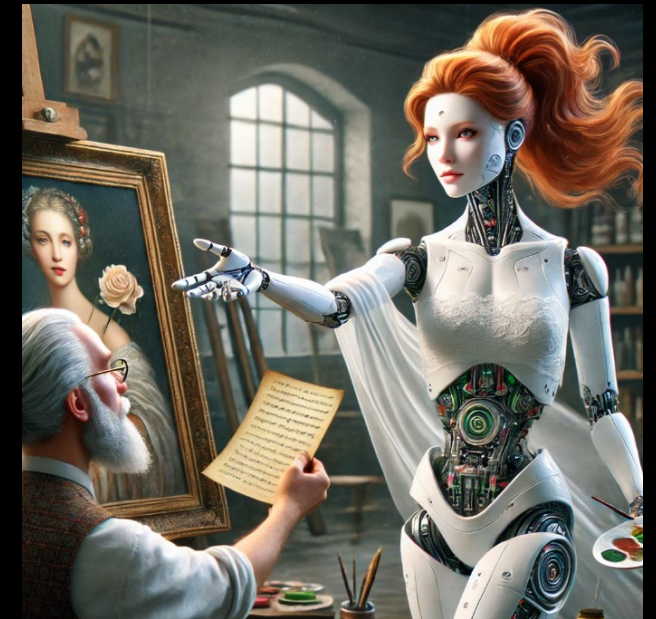
- **Theft, Stealing, and Piracy**
  - Plaintiffs can't mean them literally
  - Metaphorically it smears the defendants with an allusion of wrong doing
- **Other metaphors** – e.g., **scraping, scanning, compressed copies** – are inapt
  - Scanning is misleading.
  - Scraping is confusing.
  - Compressed “copies” of files are not stored
- **The confusion caused by this false narrative aids plaintiffs**





# TOPIC 3: AND THEN THERE ARE THE FAIR USES

- **Fair use for nonexpressive copying for the purpose of carrying out a computer function** – [Google v. Oracle, Sega]
- **Fair use for expressive copying that fulfils important public benefits** – [Authors Guild, HathiTrust, Perfect 10, Kelly]
- These cases were endorsed by *Andy Warhol Fnd. v. Goldsmith*
- ***If*** the plaintiffs' images on the internet were copied, and ***if*** the copying that the plaintiffs rely on is the **training** of an LLM/Foundation model, then the **function and purpose** of an LLM/Foundation model is completely different from the function and purpose of the original images on the internet.



# DEEPPFAKE EXPLOITATION

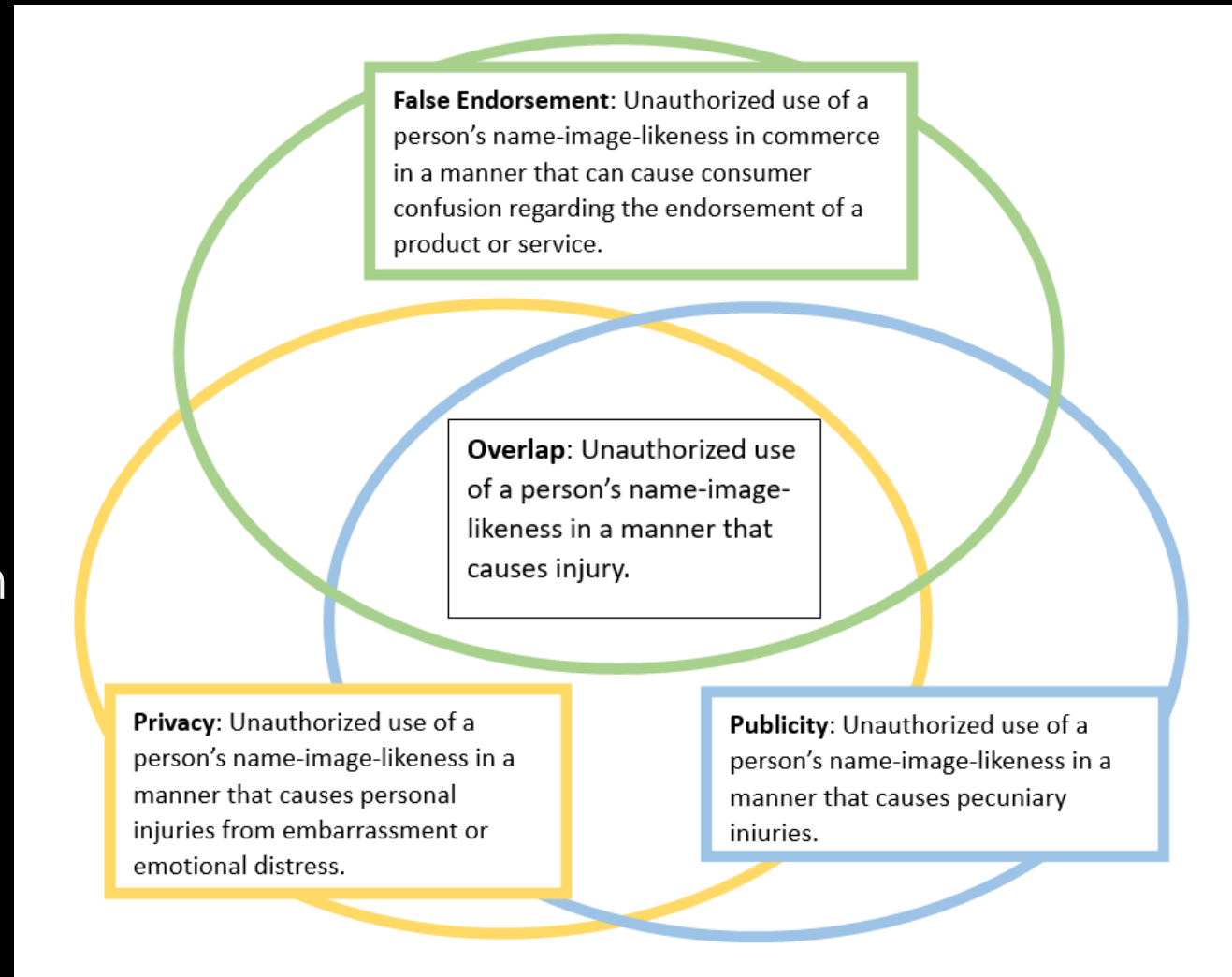
- Emergence and significance of generative AI and deepfakes
- Impact on personal rights tied to persona and personality: privacy law, publicity law, and trademark concerns
- **Deepfakes as expressive works and their legal implications**





# LEGAL FRAMEWORKS FOR PROTECTION OF PERSONALITY RIGHTS

- Triad of protections:
  - The Right of Publicity: control over commercial use of identity
  - Right of Privacy: protection from emotional harm and unwanted exposure as personal injuries
  - Trademark Law: false endorsement and consumer confusion prevention
- **Overlap of these frameworks in protecting identity, privacy, and persona**



- Property-based approach to persona rights

- Recognizes commercial value in a person's likeness, voice, recognizable attributes, etc.

- Historical case examples: Bette Midler, Johnny Carson

- **Deepfakes with AI-generated personas in commercial contexts**

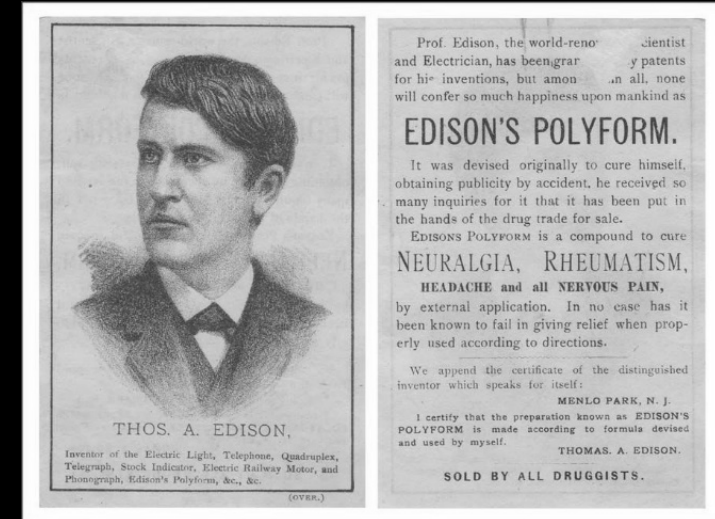
# RIGHT OF PUBLICITY (NIL)





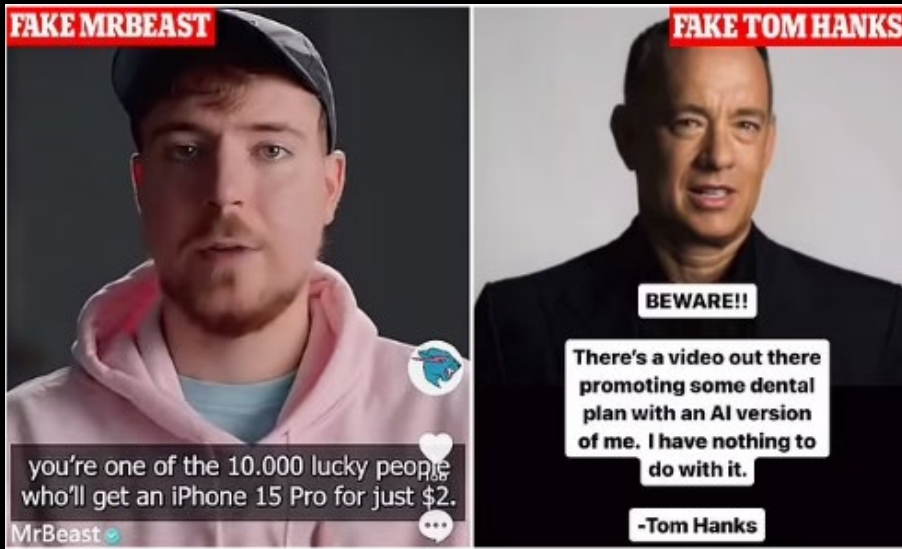
# TRADEMARK LAW: FALSE ENDORSEMENT AND FALSE DESIGNATION OF ORIGIN

- Consumer confusion in commercial contexts involving personas
  - Historical case examples: Thomas Edison; Tom Waits; Vanna White; Dustin Hoffman
  - Trademark's role in avoiding misleading endorsements – e.g., Mr. Beast, Tom Hanks, Elon Musk
- Deepfakes as potential false endorsements



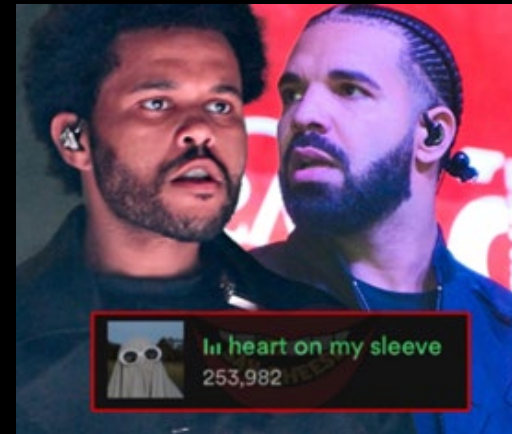


# REAL LIFE EXAMPLES



# FIRST AMENDMENT CONSIDERATIONS

- Deepfakes require balancing **free expression** with **personality rights**
  - First Amendment defenses in publicity and privacy claims
  - Cases applying transformative use and relatedness tests
- **Deepfakes in commentary, parody, and artistic expression**





# ETHICS AND PROFESSIONALISM

- **Competence, truthful Communication** (Model Rules 1.1, 1.4, et al.)
- **Duty to get to know generative AI** (Model Rule 1.1, Comments 5 and 8 - Competence)
- **Advice on how to use it** (Model Rules 1.1, 1.3 – Competence, Diligence)
- **Notes, warnings, alerts of the quirks of AI** (Model Rules 1.3, 1.6, 5.3 – Diligence, Confidentiality, Supervision)
- **Looking to the near future – AI Agents** (Model Rules 5.3, 5.5 – Supervision and Unauthorized Practice)





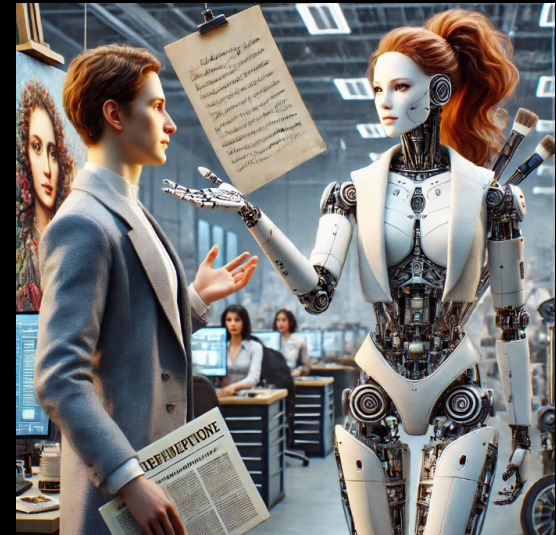
# FUTURE LEGAL ISSUES: AGENTIC AI AND AGI

- **Agentic AI** – “AI with agency” – beyond chatbots, an actual AI Agent will perform legal tasks with both **autonomy**, skill, and **self-motivation** to solve problems, get answers, and get the task done.
- **Three basic forms:**
  - **Personal assistant or service rep** (e.g., Workforce's Agentforce)
  - **Partially personified agent** (e.g., Super Alexa)
  - **Fully personified, anthropomorphized agent** (e.g., androids, robots – TBD)
- They all will do some or all of a task given to them without further directions or human intervention
- Will they be liable or culpable? Can they own things—property, crypto wallets, credit cards? Enter into contracts? Have permits and licenses (e.g., to drive)?



# EVENT HORIZON: AGENTIC AI AND AGI

- **AGI** (Artificial General Intelligence) – no firm agreement on what this will be or when it is coming, but the answers are “mindblowing” and “soon” (as in months or no more than 2 years).
- - OpenAI’s Project Q\* (Q STaR) to Project Strawberry to the o1 models indicated that AGI might be showing up soon, and very soon
- **Key concepts:** An AGI will equal or exceed human capabilities in ***all*** areas
- It will possess the ability to understand, learn from observation and experience, and apply knowledge across a wide range of tasks, much like a human
- It is likely to also be **self-aware**, autonomous, and self-motivated.





- Recent scholarship by Professor Murray:
  - \* **AI Pirated my Art and Birthed Infringing Works, and Other Metaphors that Confound Copyright Law**, 58 AKRON L. REV. \_\_\_\_ (forthcoming, 2025), <https://ssrn.com/abstract=5116714>
  - \* **Deceptive Exploitation: Deepfakes, the Rights of Publicity and Privacy, and Trademark Law**, 65 IDEA: L. REV. FRANKLIN PIERCE CENTER FOR INTELL. PROP. \_\_\_\_ (forthcoming, 2025), <https://ssrn.com/abstract=4981531>
  - \* **Legislating Generative Artificial Intelligence: Can Legislators Put a Box Around Pandora?** (work in progress), <https://ssrn.com/abstract=4893177>
  - \* **Visual Legal Rhetoric in the Age of Generative AI and Deepfakes: Renaissance or Dark Ages?**, 28 SMU SCI. & TECH. L. REV. \_\_\_\_ (forthcoming, 2025), <https://papers.ssrn.com/abstract=4883390>
  - \* **Artificial Intelligence for Learning the Law: Generative AI for Academic Support in Law Schools and Universities**, 8 TEX. J. L. & TECH. \_\_\_\_ (forthcoming, 2025), <https://ssrn.com/abstract=4564227>
  - \* **Deepfakes and Dog Toys: First Amendment Defenses under the *Rogers* Test after *Jack Daniel's v. VIP Products***, 58 IND. L. REV. 257 (2024), <https://papers.ssrn.com/abstract=4811359>
  - \* **Tools Do Not Create: Human Authorship in the Use of Generative Artificial Intelligence**, 15 CASE W. RESERVE J.L. TECH. & INTERNET 76 (2024), <https://ssrn.com/abstract=4501543>
- **Generative AI Art: Copyright Infringement and Fair Use**, 26 SMU SCI. & TECH. L. REV. 259 (2023), <https://ssrn.com/abstract=4483539>

The top of the image features a series of overlapping, wavy, translucent bands in shades of yellow, orange, red, and teal, creating a dynamic, abstract header effect against a solid black background.

# THE END

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