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What Lies Ahead: Using AI in IP Enforcement

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- AI is now an aspect of commerce, security, art, culture, entertainment, information, law enforcement, privacy concerns, healthcare, and life as we will come to know it.

- AI technologies are bringing change and complications for the established legal regime.

- As Justice Louis Brandeis observed in *Olmstead v. United States* in 1928, about technology and privacy, "The progress of science" will never stop.

AI as a Technological Seismic Shift

- Amara's Law states: "We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run."

- Perhaps AI will end up, as Rafil Kroll-Zaidi observed about technological changes in general, an innovation that "comes along; expectations run wild, then fail to materialize; but the new technology quietly expands, in unexpected ways, until it winds up having a profound effect after all."

AI as a Technological Seismic Shift

- Or, as others have asked, is AI a Gray Rhino, an obvious yet often underestimated risk, or a Black Swan, a rare and disruptive event that takes us by surprise?

- Well, maybe not a complete surprise, but it is something that most policymakers and politicians, let alone the average consumer, business person or lawyer, are still wrapping their heads around.

- And while AI may not be exactly "quietly" expanding, it is definitely doing it in unexpected and dramatic ways.

AI and IP Enforcement

- AI is quickly having, and will continue to have, significant implications for the administration, practice, protection, and enforcement of IP rights.

- Indeed, AI will impact all IP law – copyright, trade secret, design, patent, trademark -- in ways IP offices are rushing to digest.

- It will be a significant tool in civil, border, and criminal enforcement activities by IP owners, practitioners, and government agencies.

AI as Technological Seismic Shift

- As Dennis Collopy noted at the recent WIPO Advisory Committee on Enforcement on a study commissioned by the UKIPO, while AI can be used to track and trace IP infringing goods, it is also used by IP infringers.

- While AI can be used to enforce IP, such as improved detection of copyright-infringing content, design and patent recognition and faster detection of trademark misuse, the costs, lack of transparency, data-sharing issues and ethical considerations constitute challenges.

AI and Slippery Slopes

- AI presents simultaneously both promise and warning.

- Depending on who is opining, it is either a life-changing benefit or a potential destroyer, and no one really knows if it can be controlled or not.

- Many business, tech and scientific leaders see AI's potential, but others, including Alan Turing, Imnit Gebru, Bill Gates, Elon Musk, Stephen Hawking, and Geoffrey Hinton have warned of an existential threat.

- Who is right? No idea. Yet there are potential slippery slopes in progress, as Justice Brandeis noted a century ago.

AI and Slippery Slopes

- In fiction and film, AI is portrayed as either good and under control (Isaac Asimov's *I, Robot* stories); misunderstood (Arthur C. Clarke's *2001: A Space Odyssey*); rebellious (Karel Capek's *R.U.R.*); evil (*Battlestar Galactica*); taking control from governments (James Cameron's *Terminator*); or enslaving us (Wachowskis' *The Matrix*).

- But as Kroll-Zaidi observed in his NYT Magazine article in 2022, "The problem is not whether the slope **_is_** slippery; it's whether we can't **_see_** all the slopes we are on."

- The most immediate slippery slope is copyright.

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AI and Slippery Slopes

- In the UK and U.S., there are more than 10 --at latest count-- lawsuits against generative AI companies, including OpenAI, Meta, and Google parent company Alphabet.

- This includes the Authors Guild class action suit against OpenAI, alleging copyright infringement with such authors as David Baldacci, Jonathan Franzen, George R.R. Martin, John Grisham, and Scott Turow as co-plaintiffs.

AI and Slippery Slopes

- The copyright holders filing these lawsuits extend well beyond writers.

- OpenAI and Microsoft have been sued by developers for infringing software code. Stability AI has been sued by Getty Images over its copyrighted photos.

- The New York Times sued OpenAI and Microsoft for copyright infringement in using its content to train their large language models.

AI and Slippery Slopes

- So far in 2024, SAG-AFTRA, the largest actors union in the world, reached an agreement on AI voice acting licensing in video games with Replica Studios after threatening a lawsuit.

- So what's at stake? Future of the entertainment, media, software, broadcasting and news business? Future of copyright law? Future of innovation? Future of AI? Or all of the above?

Will AI be transformative?

Already, AI can manage or assist with such tasks as:

- conducting searches and analysis of prior art and IP registration databases more efficiently and accurately;

- streamlining contract analysis by extracting and categorizing relevant information, saving time and allowing attorneys to focus on negotiating and drafting contracts;

- enabling faster identification of potential conflicts, enhance due diligence, and assist in determining protection or infringement issues; and application drafting to improve productivity/reduce costs.

AI and IP enforcement can:

- monitor online platforms, websites, and social media for unauthorized use of IP, enabling proactive enforcement by owners;

- identify instances of infringement on digital platforms by comparing content or marks against databases of brands, designs, or works; and

- assist IP research and litigation by analyzing legal texts, court decisions and precedents, as well as case strategy development, and outcome predictions from historical data.

Border enforcement may include:

- drawing insights and patterns from customs databases, market reports, trade statistics, and IP owner provided product identification materials;

- automatically identifying objects in streaming video and imagery; and

- providing real-time alerts to operators when an anomaly is detected, enhancing the ability to stop illicit and illegal goods from entering the country.

Border enforcement may include:

- U.S. Customs and Border Protection uses AI to screen cargo at ports of entry, validate identities, and enhance awareness of threats at the border.

- AI models are used to:
  - automatically identify objects in streaming video and imagery; and
  - provide real-time alerts to operators when an anomaly is detected.

AI used by Homeland Security can:

- enhance its various operations, including border security and criminal investigations of violations of IP rights, and engage experts across its agencies, mission-spaces, and disciplines to ensure a holistic approach to the ethical use of AI

- strengthen supply chain security;

- allow HSI agents to see patterns of behavior and illicit tracking of goods.

Use of AI in criminal investigations

- AI networks are being trained to detect crime scene clues with images from crime scenes so the ML algorithms will know what to detect, including patterns used by criminals in different situations, that could connect several crimes to one person.

- The U.S. Federal Bureau of Investigation (FBI) has taken the lead in the following AI applications:

    - facial recognition, fingerprint identification, DNA matching, cybersecurity, and insider threat identification

Collection, Identification, Analysis

- AI can be trained to annotate all of the images inputted into the computer, including fingerprints, footprints, tread marks from footwear, tires, colors, designs, and fabric patterns.

- Images can be labeled and the AI can learn to match them to specific types of products and brands, which can be then used to connect them with other crime scenes.

- AI can do tasks normally done by humans in analyzing the crime scene, evidence, and other information sources.

Identifying Suspects

- AI can use facial recognition technology -- widely in use by law enforcement agencies around the world -- to identify suspects, by reviewing miles and hours of camera footage, millions of web pages, and real time broadcasts.

- AI can harness police databases to browse information on past suspects, make connections and discover clues hidden so deep in the data that human scrutiny might never detect it, and while AI may not be able to provide definitive answers, it could identify relevant data.

Criminal uses of AI

- All types of criminals can use readily available AI tools to:

    - fabricate, forge and falsify images, certificates, documents, and create deepfakes videos;

    - create/manufacture realistic counterfeit labels and packaging;

    - clean up language, grammar, misspellings, and awkward phrasing on labels, packaging, advertising, websites; spam/phishing emails, which were often dead giveaways of counterfeit goods made in a foreign country; and

    - allow hackers to break into networks through emails that trick recipients into sharing personal info or access and them.

AI's impact on IP enforcement

- AI is being integrated into the criminal justice process, from crime prevention to evidence analysis.

- It can assist courts in making sentencing decisions and assess likelihood of future criminal behavior, thereby informing parole, probation, or release decisions.

- It can enhance efficiency, accuracy and fairness, but bias, transparency, and ethics concerns have been raised and will continue to be raised as AI technologies become more pervasive and invasive.

Conclusion

- In her 2003 book, *Ruling the Waves*, historian Debora Spar recounts the histories of the printing press and maps; telegraph, radio, and satellite TV; software encryption and digital entertainment, concluding that significant innovation has always led to a wave of commerce and of chaos.

- Inventions came along, entrepreneurs carved new markets from the emerging technology and proclaimed that the old rules no longer applied -- and for a while, they were right. It was the Wild West, Electronic Frontier, Cyberspace.

Conclusion

- But eventually--and inevitably--even cowboys need rules: rules of property, rules of coordination, rules of competition, rules of privacy, and rules of dispute resolution and enforcement.

- The pioneers turn to government and demand law and order, rules are imposed, a new sheriff rides into town, setting the stage for the next tech wave.

- AI will be no different.

Thank you!

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