

Nelson Mullins Encompass

Ethical Considerations and Use of AI to Identify
Personal Health Information

July 29, 2020

| ENCOMPASS

Presenters



Lucile H. Cohen
Partner – Columbia, SC

Litigation partner who serves as discovery counsel to clients in complex litigation matters and government investigations, developing discovery response strategies, negotiating ESI protocols and other discovery orders, and advocating on behalf of clients regarding scope of discovery, burden issues, and culling and search methodologies

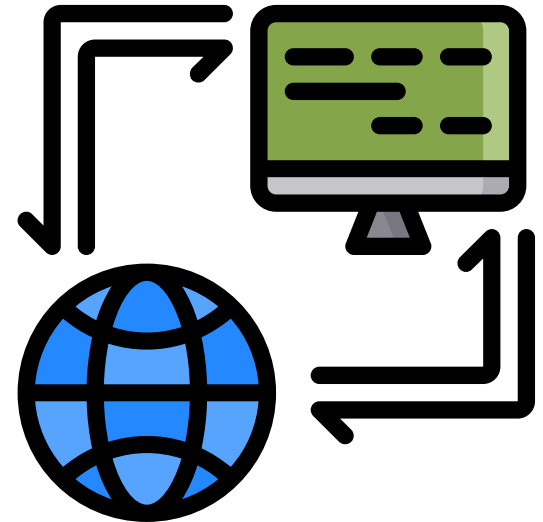


Mallory Acheson
Head of Analytics – Nashville, TN

Attorney with multiple years of experience leveraging AI and data analytics tools to guide clients through a variety of challenges across the EDRM.

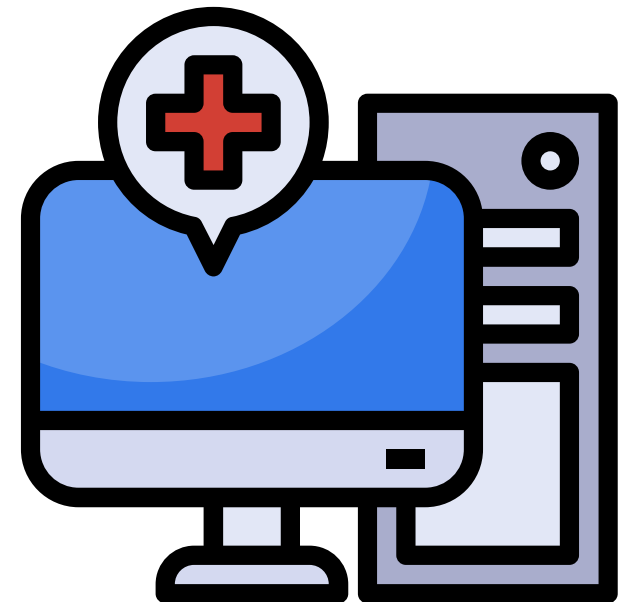
Where are we going?

- Key Topics
 - Defining personal health information & requirements
 - Artificial Intelligence capabilities with PHI identification
 - Ethical concerns arising from use of AI.



What is Personal Health Information?

- PHI is any information relating to the physical or mental health or condition of an individual, the provision of healthcare to the individual or payments for the individual's healthcare, that is either created or received by a covered entity and that is in any form, including oral, written or electronic form
- Examples
 - Medical records, X-rays, mammograms, prescriptions and even oral diagnoses or treatment orders by physicians

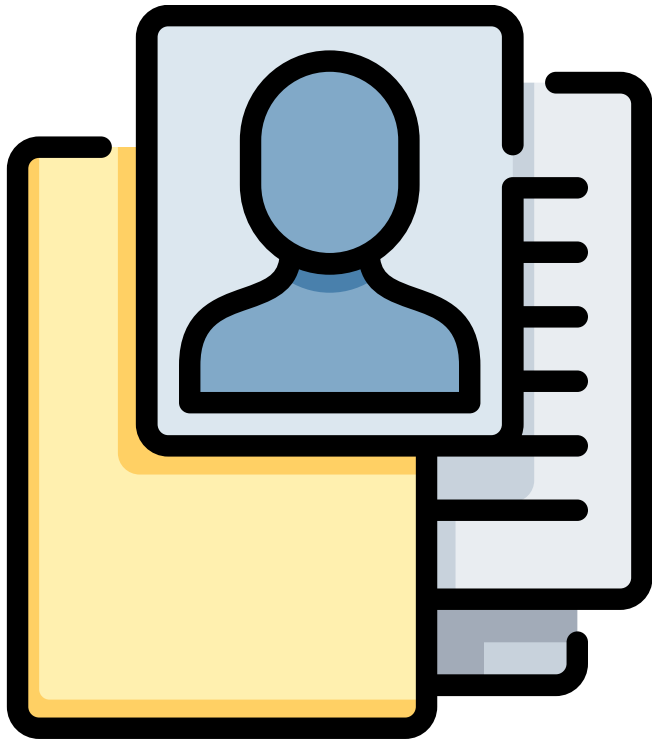


Where PHI Matters

- Information Governance
- Government Requests
- Individual Consumer Requests/Disclosures
- Litigation
- Incident Response



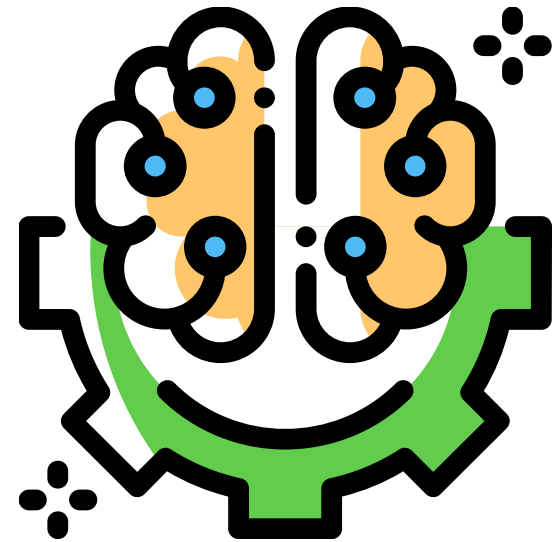
PHI Actions



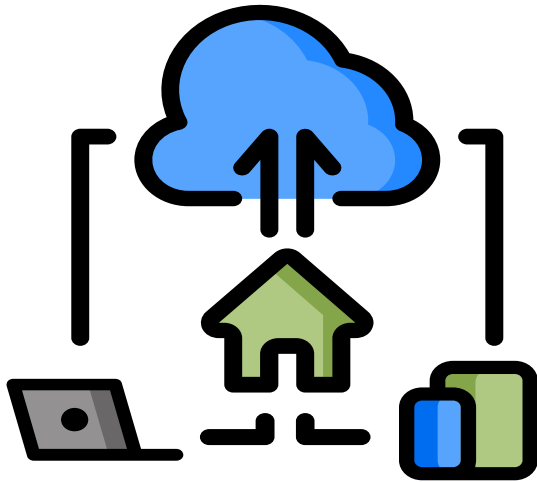
1. ***Identification***
of PHI
2. ***De-Identification***
of PHI
3. ***Normalization***
of PHI

Artificial Intelligence

Artificial Intelligence (“AI”) any automated process that classifies, categorizes, summarizes, makes decisions, or provides guidance regarding data and information using statistical, rule-based, or other algorithmic means.



AI & PHI Identification



1. Regular Expressions
 1. Identify patterns
 1. Example: $SSN = ^\{d\{3\}-\{d\{2\}}-\{d\{4\}}\$$
2. Advanced Search Terms
3. AI Modeling & Contextual Algorithms
 1. Identify additional instances of PHI by analyzing the context in which words are being used within data
 2. Train AI learning models on different pieces of PII
4. Entity Extraction
 1. Automatically identify the “entities” in your data set (e.g., people, companies, places)

AI & PHI De-Identification

- Mass Redaction
 - PI Level (e.g, all SSN)
 - Document Level (e.g., form duplicates)
- Anonymization
- Over-Redaction Prevention



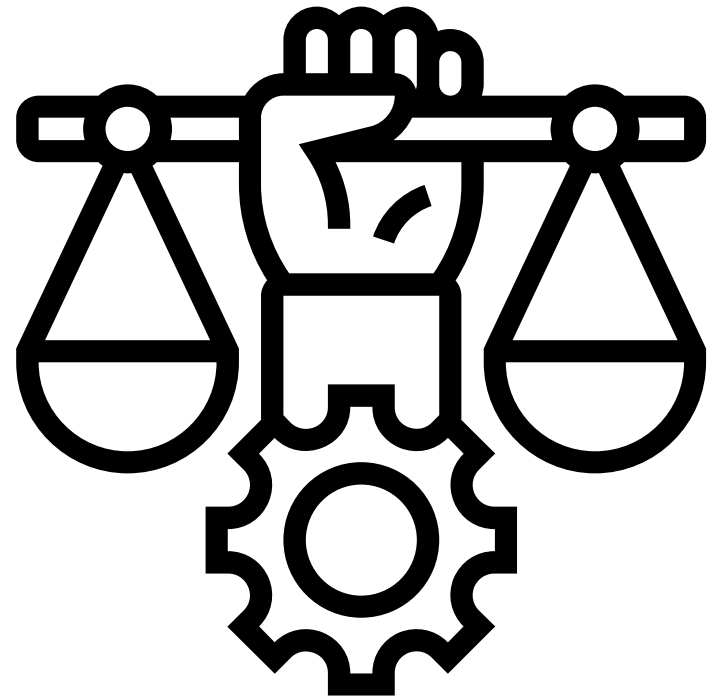
AI & PHI Normalization



- Creation of a “Master List”
 - Identify and merge name variations
 - First/middle/last, nicknames, maiden names
 - Identify & merge typos
 - Deduplicate individual entries

Ethical Implications of AI for PHI

1. Competence
2. Confidentiality
3. Supervision



MRCP Rule 1.1 Attorney Competence

Comment 8:

To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject.

- Lawyers have an affirmative ethical obligation to understand the technology that is being used currently in the legal profession and the risks and benefits to the use of such technology

MRCP Rule 1.6 Confidentiality

A lawyer shall make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client.

- Every aspect of the use of AI may intersect with the lawyer's duty of confidentiality:
 - Vendor sophistication and data protection
 - Ownership of information
 - Protection of confidential information in dealings with vendors
 - Security measures
 - Termination of relationship

MRCP Rules 5.1 & 5.3 Attorney Supervision

Rule 5.1 requires attorneys with either managerial authority in a firm, or one with “direct supervisory authority over another lawyer” to ensure those they are supervising conform to the Rules of Professional Conduct

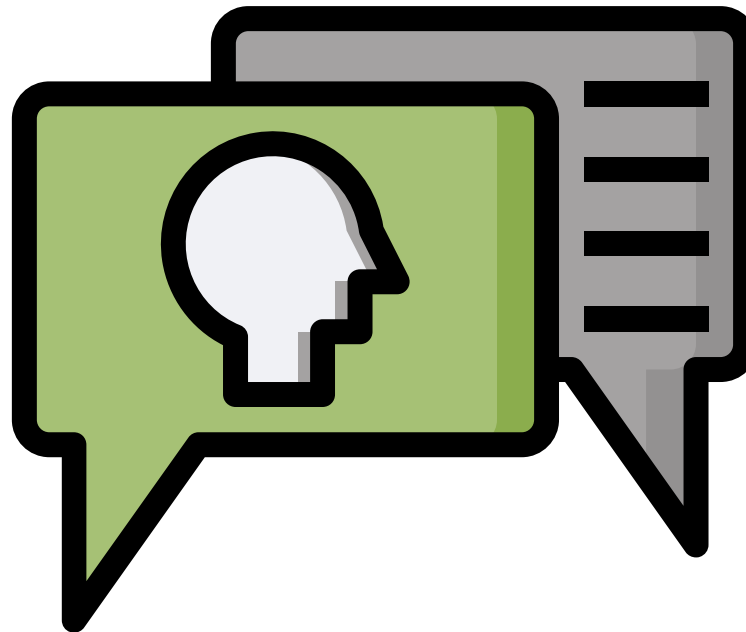
- A firm or supervising attorney’s duty to supervise extends to the firm’s programs, including software used by the firm, such as Westlaw, Lexis, conflicts software and AI. One must know the capacity of the chosen AI technology to understand whether it will conform to the Rules.

Final Thoughts & Conclusions

1. Competence is a key principle for the trustworthy adoption of AI in the law.
2. Technology can greatly assist with an attorney's duty of confidentiality, but must also be analyzed to ensure security standards
3. Lawyers are obligated to supervise the work of the AI – know your AI and your team.

Use your Intelligence Ethically!

Questions/Discussion



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