



# Technology and Cyber Security for Small/Solo Firms

General Practice Institute



# Who am I?

- Over 27+ Years in Technology, 15+ in Data Security and Privacy Leadership
- I have been the Executive in charge of Information Technology, Data Security, and Risk Management for various companies:
  - Financial, Healthcare, Government, Retail, Energy, Manufacturing, Hospitality, Legal
- General Practice and Business Attorney
- Certified Information System Security Professional (expired)
- U.S.M.C. Veteran
- Lived in 9 states
  - AK, HI, NC, VA, AL, CA, CO, IN, TX

# How certain are you?

- In a world where technology is critical to the success of your firm:
  - Are you confident that you are doing enough to protect your client's data?
  - Do you know for certain how to ensure you are not at risk of losing client data?
  - Do you know what to do if you DO lose client data?

# Key things to understand ...

- The only way to ABSOLUTELY secure it is to unplug it
  - No matter how much you invest in tools, you will still have gaps
    - There are ways around EVERY technology solution
  - No technology tool is perfect
  - Technology and Security best practices are critical in mitigating risk
- You have to focus on RISK MITIGATION and RISK MANAGEMENT, just like in the law
  - People, Processes, and Technology - The ENTIRE lifecycle
  - Risk Mitigation involves:
    - Reduction
    - Acceptance
    - Transfer
    - Avoidance
    - Ignorance

# Key things to understand ... cont.

- The cloud is NOT the problem, people are
  - Cloud Security vs. In-house Security
    - Are you more qualified to secure it or ensure there are contractual protections?
    - Access to data
    - Real-time response and protections
- Technology is not a set it and forget it thing
  - Software gets updated
  - Security standards change
  - Real-time monitoring is a real thing
  - Technology ages

# What should I pay attention to?

- PHISHING / SMSHING - If you don't recognize it, don't click it
  - Looks at the email address, the verbiage, the context, etc.
  - When in doubt, look up the person / company and call them
    - Don't use the number in the email ☺
- Computer hygiene - CRITICAL
  - Malware protection
  - Updates
- Client data storage locations - Where is the data going to and is it protected?
  - Access Controls - First line of defense
    - 2-Factor Authentications
    - Strong Passwords/Passphrases
- Basic protections - Layers of protections
  - Pay attention to Security Settings and options
  - Firewalls are mandatory but not the only thing
  - 3<sup>rd</sup> party access
- Logging - Who has accessed your client's data?

# Data Breach Facts

71% of 2025 Data Breaches were Small Business

60% include a Human Element  
(23% from Social Actions)

Average cost per breach = \$4.44M  
In the U.S. = \$10.22M

3,322 breaches in 2025  
278,827,933 Victim Notices

Professional Services has  
increased 162% in the past 5  
years

# Data Breach Facts - Professional Industry Small Business

88% Financially  
Motivated

Cost per breach  
\$120-1.24M

547 Breaches

# Breach Statistics

Industry (NAICS)	Frequency	Top patterns	Threat actors	Actor motives	Data compromised
Professional (54)	2,549 incidents, 1,147 with confirmed data disclosure	System Intrusion, Social Engineering and Basic Web Application Attacks represent 91% of breaches	External (93%), Internal (7%), Partner (1%) (breaches)	Financial (88%), Espionage (17%) (breaches)	Internal (70%), Other (25%), Credentials (24%), Personal (24%) (breaches)

# Data Security Laws to be aware of

Name	Industry	Application
Privacy Act 1974	Federal Agencies	Collection and use of individuals data
HIPAA	Healthcare / “Covered Entities”	Personal Health Data
GLBA	Financial	Collection and use of individuals data
COPPA	All	Data of individuals under 13
PCI	All	Payment Card data protection

# Data Privacy Laws to be aware of

Name	Industry	Application
Privacy Act 1974	Federal Agencies	Collection and use of individuals data
HIPAA	Healthcare / “Covered Entities”	Personal Health Data
GDPR	All	Protection of EU citizens data
CCPA/CCPR	All doing business in California	Consumers from California
TDPSA	All	Collection and use of individuals data

# Important Information

- Security laws = How you must protect the data once you collect it.
- Privacy Laws - Can you collect, how is it used, Informed Consent.
- There is no Federal Data Privacy Law on the collection and use of Individuals data.
- Most State Privacy Laws have a carve out for small businesses
  - Pay attention to the definition of "small business" as it is different in every state.

# Data Privacy

- U.S. takes an Opt-out approach - Other nations take an Opt-in approach
  - Why?
- Your data is a commodity
  - Collected, sold, used, re-sold, etc.

# Data Breach Notification Laws

- All 50 states have laws requiring private businesses to notify individuals of security breaches involving personally identifiable information (PII)
  - PII is defined by each state and varies by state
  - What constitutes a breach varies by state
  - Notice requirements vary by state
- Texas
  - Name, SSN, DOB, ID Number, Mothers Maiden Name, Biometric Data, Electronic data
    - Anything that can identify a person.....
  - Duty to protect data
  - Notification - “Without unreasonable delay” or within 60 days
  - Penalties - Between \$2-50K PER VIOLATION + up to \$250K for failure to comply
- Now think of this for every state of every client you have ever had.....

# How do I protect my firm?

- Partner with good technology vendors
  - Are they compliant with these rules?
  - Does the contract show that?
  - Are there written Data Protections in the contract?
  - Are there Privacy protections?
- Wherever possible, shift the risk / burden to the vendor
  - Do they take on the liabilities if things go bad?
  - Do they indemnify you if they breach data?
- Don't overlook Cyber Breach Insurance
  - BUT be careful to understand what is and what is not covered
  - Negligence is usually an issue and so is ignorance

# How do I protect my firm?

- If you can avoid collecting data, avoid it
- If you have to collect data, ensure it is encrypted
- Ensure proper Access Controls
- Real-time monitoring is critical
- Don't write down and store Credit Card information
- Use Strong Passwords / Passphrases
- Use Multi-Factor Authentication on your systems
- Consider Cyber Insurance to shift the burden

# Final Thoughts

- How much is your reputation worth?
  - One breach can destroy it
- Use the K.I.S.S. principal
  - Standardize on as few technology platforms as possible (i.e. Microsoft, Westlaw, etc.)
- Pay attention to the contracts you have with vendors that touch client data
- Know your industry specific requirements
- Know the ethics rules on data security and protection

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# Questions

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Consider having a Risk Assessment done at your firm focused on Data Protections and Privacy

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# Kandace D. Walter

## Education

Richardson HS graduate

Florida A&M (Chemistry-2001)

University of Texas School of Law (2004)

## Employment

Former Dallas prosecutor (DA's Office and City Attorney's Office)

School Law firm

IP/Commercial Litigation and Family law firm

Walter Legal PLLC since 2016

SMU Small Business & Trademark Clinic Director since 2020

## Bar Service

J.L. Turner Legal Association President (2025)

Dallas Bar Association, Director (2023-present)

Lynn Inn of Court, President (2024-2025)

The NEW Roundtable, Inc, Director & Founder (2014 to present)



# Artificial Intelligence & Cybersecurity



## Defensive Role (The Shield):

- AI empowers security systems to analyze vast amounts of data in real-time, identifying patterns and anomalies at speeds beyond human capability.
- Key applications include automated threat detection, phishing and spam prevention, vulnerability management, and behavioral analytics.
- AI-powered security tools can automatically block malicious traffic, isolate compromised devices, and reduce the remediation time.

## Offensive Role (The Threat):

- Cybercriminals use AI to automate attacks, create more convincing phishing campaigns, generate deepfakes, and develop adaptive malware that can evade traditional security measures.
- Attackers are also targeting AI models themselves through data poisoning (manipulating training data) and model theft

# Artificial Intelligence & Intellectual Property

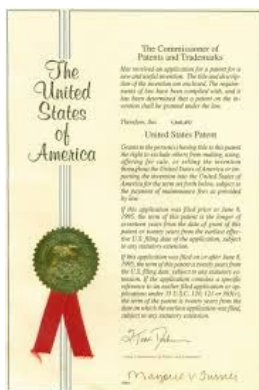


The rise of generative AI has created significant risks to intellectual property, including trade secrets, patents, and copyright.

- **IP Infringement in Training:** Generative AI models are often trained on vast datasets of copyrighted works, leading to lawsuits over whether this usage constitutes fair use.
- **Data Leakage and Confidentiality:** Employees using public AI tools may inadvertently input proprietary code, trade secrets, or client data, which can then be absorbed into the AI model and potentially revealed in future outputs to competitors.
- **Ownership of AI-Generated Content:** Current legal frameworks generally require human authorship for copyright and patent protection. AI-generated outputs often fall into a "grey area," making them difficult to protect from reproduction by others.
- **Protecting AI Assets:** Companies must adopt a holistic IP strategy that uses trade secrets for non-public information, patents for technical improvements (e.g., in machine learning algorithms), and strict contractual restrictions for licensed AI data.

# Intellectual Property Basics

- Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.
- IP is protected in law by, for example, **PATENTS, TRADEMARKS, COPYRIGHTS**, which enable people to earn recognition or financial benefit from what they invent or create.
- By striking the right balance between the interests of innovators and the wider public interest, the IP system aims to foster an environment in which creativity and innovation can flourish.



# Types of Intellectual Property

- **Patent** your inventions and technology (is it new, useful and nonobvious?)
- **Trademark** your business/product names ASAP, start creating brand loyalty. Check to see if your current or future name is in use: local, state, federal? Is someone else already using that name?
- **Copyright** your manuals, brochures, other works you produce or create
- **Trade Secrets** maintain confidentiality of your process, your dataset, your codebase.



TM



# Key Strategies for Security and IP Management

- **Secure AI Environments:** Organizations should adopt "closed" AI environments or private, self-hosted models to prevent data leaks.
- **Confidential Computing:** Using hardware-based trusted execution environments to protect data while it is in use.
- **Robust AI Governance:** Implementing clear policies for AI use, regular auditing of AI systems, and comprehensive employee training on AI-driven risks.
- **Adopting AI-Driven IP Tools:** Using specialized AI tools to monitor web and patent databases to automatically detect potential IP infringements and counterfeit products.



# Patents

- **Utility** patents may be granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof. Protect FUNCTIONality.
  - **Provisional Utility:** 1 year term, patent pending, No prosecution before USPTO, Less work and less expensive than nonprovisional (no review by examiner!), **MUST** file non-provisional within 1 year or lose patentability rights.
  - **Non-Provisional Utility:** 20-year term, Prosecution before USPTO (office actions, responses, appeal to PTAB), **MORE** expensive: lawyer fees, USPTO filing fees, drawings.
- **Design** patents may be granted to anyone who invents a new, original, and ornamental design for an article of manufacture.
  - Must be novel and nonobvious, ex: jewelry, furniture, trash cans, clothing. **REQMTS:** article of manufacture, new/novel, original/nonobvious, ornamental (not utilitarian or merely functional).



# Trademarks & Copyrights

- A **Trademark** is a word, name, symbol, or device that is used in trade with goods to indicate the source of the goods and to distinguish them from the goods of others.
- A **Servicemark** is the same as a trademark except that it identifies and distinguishes the source of a service rather than a product. Marks can be words, designs, or even colors or sounds if they identify a source. ® symbol for federal registration only, otherwise use TM.
- **RIGHTS:** Common law < State TM < Federal TM
- **Copyright** gives the right to control copying of a work, protects creators of books, music and art by providing exclusive right to reproduce works and derive income from those works, protect authors while providing access to the public.
  - Common US Copyright Industries: software, films, music, television shows, video games. There is no state copyright, only **FEDERAL** rights.
  - Regulation provides method of registration of copyright, allow access to federal court for © infringement cases



# Trade Secret

1. Is information that has either actual or potential independent economic value by virtue of not being generally known (secret!)
  2. Known only to a limited groups of persons
  3. Is subject to reasonable efforts to by rightful holder of information to keep it secret, including use of confidentiality agreements for business partners and employees
- All three elements are required.
  - If any one of them ceases to exist, then the trade secret will also cease to exist.
  - No limit on the amount of time a trade secret is protected.
  - No registration process (then it would NOT be a secret)

## Examples:

- **Technical information**, such as information concerning manufacturing processes, pharmaceutical test data, designs and drawings of computer programs
- **Commercial information**, such as distribution methods, list of suppliers and clients, and advertising strategies.
- **Combination of elements**, each of which by itself is in the public domain, but where the combination, which if kept secret, provides a competitive advantage.
- Other include financial information, formulas and recipes and source codes.



# Trade Secrets vs Patents

Trade secret protection is a complement to patent protection.

- **Trade Secrets**
  - Broad definition of protectable information
- **Patents**
  - Inventor must provide a detailed and enabling disclosure about the invention in exchange for the right to exclude others from practicing the invention for a limited period of time.
  - Patents expire, and when that happens the information contained within is no longer protected.
  - Patents may protect against independent discovery (not true for trade secrets)
  - Patents eliminates the need to maintain secrecy.
- **Which one?**
  - Protection plan depends on business considerations and weighing the relative benefits of each type of intellectual property protection.



# Threat Landscape for Intellectual Property

- Before: physical access or reverse engineer to steal technology
- Now: IP is often in the cloud, server issue or weak password can result in catastrophic breach. Ex: beta codes, design files, prototypes, trade secrets, research notebooks
- Valuable assets can change in real time, moving faster than patent system
- Possible threats vary from stolen laptop, a disgruntled former employee, or a hacker getting past firewall, shared Google drive, unencrypted files, open source code, inside attack from employees, contractors, business partners
- IP Target for Cybercrime
  - Ransom demands
  - Stealing technology or inventions to remove competitive advantage
  - Hackers targeting Research/Development
  - Neutralize competitive edge in market through theft

Contracts and NDAs can only do so much. How is sensitive information stored, accessed and transmitted? A data breach = possible law suits, contract disputes, lost valuation.

More time = More damage!

Organized and coordinated response required to minimize damage and contain the harm

# Beware of IP Scammers!!

- Information from TM application is publicly available on USPTO website.
- Many companies send misleading offers or notices for trademark services.
- Recipients believe it is official USPTO correspondence and pay hefty fees for services their attorney is already providing OR for information they can locate for FREE on the USPTO website.
- Deadlines may or may not be accurate
- USPTO has a list and samples on their website

## Solicitations originating within the United States

- **NEW** [Patent & Trademark Renewal Services](#) (Washington, DC)
- [Patent and Trademark Office](#) (2200 Pennsylvania Ave., N.W., 4th Floor East, Washington, D.C.)
- [Brand Registration Office \(Trademark Selection Edition\)](#) (Washington, D.C.)
- [GBO, Inc., Trademark and Patent Dep.](#) (Miami, Florida)
- [GLOTRADE](#) (New York, New York)
- [Intellectual Property Services USA Incorporated](#) (Alexandria, Virginia)
- [IOPR - Intellectual Office Property Register](#) (Beaverton, Oregon)
- [ITR Trademark Publication](#) (Miami, Florida)
- [P.T.M.A. Patent and Trademark Association](#) (New York, New York)
- [Patent & Trademark Agency](#) (New York, New York)
- **NEW** [Patent and Trademark Bureau](#) (1700 Market St., Philadelphia, Pennsylvania)
- [Patent and Trademark Bureau](#) (1500 Market St., Philadelphia, Pennsylvania)
- [Patent and Trademark Bureau](#) (Los Angeles, California)
- [Patent and Trademark Bureau](#) (230 Park Ave., New York, New York)
- [Patent and Trademark Bureau](#) (30 Broad Street, New York, New York)

# Sample Solicitations



Patent & Trademark Renewal Services  
 1140 3rd Street, N.E. Ste. 200  
 Washington, DC 20002  
 United States of America

TRADEMARK RENEWAL COURTESY REMINDER  
 Maintenance form: Sec./8 & 15



Correspondence address



Your trademark is about to expire [REDACTED] Renewal date: (Oct. 04, 2021)

Trademark registration maintenance documents under section 8 must be filed before the deadline or the registration will be cancelled. Your trademark registration requires a filing between the 5<sup>th</sup> and 6<sup>th</sup> years after registration to remain valid.

Trademark: TRITON

### IMPORTANT INFORMATION

Registration Number: [REDACTED]  
 Serial Number: [REDACTED]  
 Mark Type: Trademark  
 Registration Date: [REDACTED] 2016  
 Filing Date: [REDACTED] 2015  
 Classes: 012



**Required Submission:** The owner of the trademark registration must file a renewal application under section 8 Declaration, the renewal date is Oct. 04, 2021


Please return this document with your signature and/or company stamp in the appropriate space below if you would like to renew your Patent.

Your trademark will be renewed for the period of another five (5) years. The renewal fee is \$927 for one class and \$324 for each additional class for the whole period of five (5) years.

You will receive an invoice from us after we have received this signed document from you.

If ownership of the registration or the owner's name has changed, the owner can inform us in advance to change the ownership of the registration.

If the owner fails to file a timely maintenance registration, the trademark will be CANCELLED and cannot be reinstated.



**GLOTRADE s.r.o.**  
Global Trademarks Protection

PAYMENT FOR <small>(FOR PRIVATE REGISTRATION REGARDING YOUR TRADEMARK)</small>	TRADEMARK OWNER INFORMATION	
GLOTRADE REGISTRATION:	TQ-189-2E5	<div style="border: 1px solid black; width: 100%; height: 100%; background-color: #ccc;"></div>
OFFER FOR THE PERIOD:	UP TO 2018	
GROSS AMOUNT:	\$ 2,890.00	
U.S.P.T.O REGISTRATION:		<div style="border: 1px solid black; width: 100%; height: 100%; background-color: #ccc;"></div>
DATE OF REGISTRATION:		
INT. CLASSES:	16	
		<div style="border: 1px solid black; padding: 2px;"> <b>TRADEMARK OWNER AND ADDRESS</b> </div> <div style="font-size: small; margin-top: 5px;">12/5/2017</div>

**REGISTERED TRADEMARK:**

DESCRIPTION: THIS IS A FACSIMILE OF YOUR TRADEMARK, REGISTERED IN THE U.S. PATENT AND TRADEMARK OFFICE

THE PUBLISHING OF THE PUBLIC REGISTRATION OF YOUR TRADEMARK IS THE BASIS OF OUR OFFER. WE OFFER THE REGISTRATION OF YOUR TRADEMARK DATES IN OUR PRIVATE DATABASE AS WELL AS THE PROTECTION OF YOUR TRADEMARK THROUGH OUR SERVICE. THE SERVICE ENABLES TO TRACK SIMILARITIES IN THE "US-TRADEMARK" AND TO IDENTIFY INFRINGEMENTS OF THE PARTICULAR TRADEMARK. OUR OFFER WILL BE ACCEPTED, WITH THE PAYMENT OF THE TOTAL FILING FEE, AND BECOMES A LEGALLY BINDING CONTRACT BETWEEN YOU AND GLOTRADE s.r.o. FOR ONE YEAR. PLEASE NOTICE THAT THIS PRIVATE REGISTRATION HAS NOT ANY CONNECTION WITH THE PUBLICATION OF OFFICIAL REGISTRATIONS, AND IS NOT A REGISTRATION BY A GOVERNMENT ORGANIZATION, AND WE HAVE NOT ANY BUSINESS RELATION YET. THIS OFFER FOR REGISTRATION IS NOT AN INVOICE BUT A SOLICITATION WITHOUT OBLIGATION TO PAY, UNLESS OUR OFFER IS ACCEPTED. ALL FURTHER DETAILS ARE INDICATED IN OUR GENERAL TERMS AND BUSINESS CONDITIONS OVERLEAF. DUE TO LEGAL REASONS, ALL AND ANY BACK-PAYMENT CLAIMS AND COMPLAINTS FILED DIRECTLY OR VIA THE BANK, WILL NEITHER BE PROCESSED OR ACCEPTED BY US. THE BANK CANNOT REFUND YOU WITHOUT OUR APPROVAL. PLEASE SAVE OUR AS WELL AS YOUR PREVIOUS TIME AND CHOOSE THE SHORTEST WAY FOR A SETTLING OF YOUR COMPLAINT. PLEASE APPROACH US DIRECTLY.

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<b>SUBTOTAL</b>	\$ 2,890.00
<b>TAX</b>	\$ 0.00
<b>TOTAL DUE</b>	\$ 2,890.00

PLEASE, DETACH AND MAIL THIS STUB WITH YOUR PAYMENT



# Artificial Intelligence and Intellectual Property

- Artificial Intelligence (AI) is radically reshaping the creation, management, and enforcement of intellectual property (IP) worldwide.
- As AI becomes a powerful agent in both generating creative works and driving inventive processes, pressing legal and ethical questions about authorship, ownership, novelty, liability, and enforceability intensify.
- Issues
  1. Who owns AI-generated inventions and creative works?
  2. Are AI outputs eligible for legal protection?
  3. How can the global IP system adapt while supporting innovation and balancing public interest?
  4. What ethical and transparency standards must be met?
- These questions impact all categories of IP, copyright, trademark, patent, trade secret

# Artificial Intelligence and Intellectual Property



- **Copyrightability of AI-Generated Works:** whether AI-generated content—text, music, images, and other outputs—qualifies for copyright protection. The consensus in major jurisdictions is that copyright attaches only to works with human authorship. The U.S. Copyright Office and courts have repeatedly ruled that AI-generated materials, produced without human creative input, are ineligible for copyright registration
- Patents require a human inventor. AI cannot be the inventor so rights are usually assigned to the humans who develop, own or oversee the AI that created the invention.
- Patent thickets (AI generated and AI-related patent apps) can result in overlapping patents blocking competitors and innovation
- **Trademarks:** AI-generated logos or brand names create ambiguity about rightful ownership and originality.
- **Trade Secrets:** AI systems increase risk of data leaks and require robust protocols for protecting proprietary algorithms or training data.
- **Dual Role of AI:** AI acts as both a threat (content generation, counterfeiting) and a tool for enforcement (monitoring, detection, automated rights management)

# Thank you for attending!!



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- Instagram: attykandyw

