

# Technology & Compliance

Ted Banks • Heidi Rudolph • Gene Stavrou

SCCE Compliance and Ethics Institute  
Breakout Session • October 21, 2018



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## About Us



Ted Banks



Heidi Rudolph



Gene Stavrou

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## About You (A Quick Survey)

- Industry? Function/Department?
- Does your organization use social media to promote products or otherwise communicate with stakeholders?
- How has GDPR affected your organization?
- Does your organization have a Bring Your Own Device program?
- Has your organization lost assets or revenue due to malicious software or phishing attacks?

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## What We'll Cover in This Session

1. Role of CCOs and Compliance Personnel
2. Evolving Environment
3. Changing Technologies and Relevant Impacts
4. Real World Implications
5. Risk Assessment

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## 1. Role of CCOs and Compliance Personnel

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## Compliance Must be More Involved in the Business



31 States have formally adopted the revised comment to Rule 1.1  
Source: <https://www.lawsiteblog.com/tech-competence/>



"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 [CLE] requirements to which the lawyer is subject." Ethical Responsibility of an Attorney. (ABA Model Rule 1.1, Comment 8)

The ethical responsibility of an Attorney extends beyond substantive knowledge of a specific area of law.

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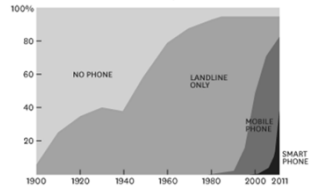
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## Increasing Speed of Technology

Technology is being adopted at an increasing speed every year

### FROM NO TELEPHONE TO SMART PHONES

U.S. HOUSEHOLDS BY TYPE OF PHONE, 1900-2011



SOURCE: MICHAEL DEGIUSTA AT THE MIT TECHNOLOGY REVIEW USING DATA FROM FORRESTER, KNOWLEDGE NETWORKS, NEW YORK TIMES, PEW, U.S. CENSUS. HBR.ORG



"Alexa, what is blockchain?"

"...in 2005 Facebook didn't exist for most people, "twitter" was still a sound, the cloud was something in the sky, 3G was a parking space, applications were what you sent to colleges, and "Skype" was a typo."—Thomas Friedman

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## 2. Evolving Environment

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## Trust and the Global Supply Chain

Sourcing is becoming more important than ever. In response to consumer interest, organizations are uncovering the sources of their products. This presents unique challenges that technologies like vendor management, third party diligence and blockchain are solving for.

The Grocery Manufacturers Association estimates food fraud costs the global industry between \$10-15b per year, affecting 10% of all commercially sold food products.

Compliance opportunity:

- Verify that business partners are not on SDN lists programmatically
- Investigate blockchain for smart contracts and provenance



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## Antitrust and Big Data

- Businesses use competitor's public and private pricing data to drive their own pricing algorithms.
- If these algorithms result in non-competitive pricing, who is responsible?
- Is the person who developed and deployed the algorithm consciously committing an antitrust violations?

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## Data Privacy – European Union

- Comprehensive
- Focused on individual human rights
- Seven Principles:
  1. Lawfulness, fairness and transparency
  2. Purpose limitation
  3. Data minimization
  4. Accuracy
  5. Storage limitation
  6. Integrity and confidentiality (security)
  7. Accountability



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## 11 Key GDPR Tenets

1. Increases the individual's expectation of data privacy and the organization's obligation to follow established cybersecurity practice.
2. Establishes hefty fines for non-compliance. An egregious violation of GDPR, such as poor data security leading to public exposure of sensitive personal information, could result in a fine of the millions or even billions of dollars (there are two tiers of violations and the higher tier is subject to fines of over 20 million euros or 4% of the company's net income).
3. Imposes detailed and demanding breach notification requirements. Both the authorities and affected customers need to be notified "without undue delay and, where feasible, not later than 72 hours after having become aware of (the breach)". Affected companies in America that are accustomed to US state data breach reporting may need to adjust their breach notification policies and procedures to avoid violating GDPR.
4. Requires many organizations to appoint a data protection officer (DPO). You will need to designate a DPO if your core activities, as either a data controller or data processor, involve regular and systematic monitoring of data subjects on a large scale. For firms who already have a chief privacy officer, making that person DPO would make sense, but if there is no CPO or similar position in the organization, then a DPO role will need to be created.
5. Tightens the definition of consent. Data subjects must confirm their consent to your use of their personal data through a freely given, specific, informed, and unambiguous statement or a clear affirmative action. In other words, silence, pre-ticked boxes, or inactivity no longer constitute consent.
6. Takes a broad view of what constitutes personal data, potentially encompassing cookies, IP addresses, and other tracking data.
7. Codifies a right to be forgotten so individuals can ask your organization to delete their personal data. Organizations that do not yet have a process for accommodating such requests will need to work on that.
8. Gives data subjects the right to receive data in a common format and to ask that their data be transferred to another controller. Organizations that do not yet have a process for accommodating such requests will need to work on that.
9. Makes it clear that data controllers are liable for the actions of the data processors they choose. (The controller-processor relationship should be governed by a contract that delineates the type of data involved, its purpose, use, retention, disposal, and protective security measures. For US companies, think Covered Entities and Business Associates under HIPAA.)
10. Increases parental consent requirements for children under 16.
11. Enshrines "privacy by design" as a required standard practice for all activities involving protected personal data. For example, in the area of app development, GDPR requires that security and privacy experts should sit with the marketing team to justify the business requirements and development plan for any new app to make sure it complies with the new regulation.

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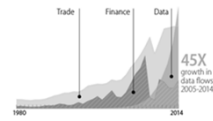
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## Data Privacy – US

California, Massachusetts and Vermont have each passed regulations related to data privacy. Each has a different scope, and none are as broad as GDPR. Every state-level data privacy regulation strengthens the argument for harmonization at a federal level.

**FTC: Inadequate privacy protection represents an unfair method of competition**



**The volume of global data flows increased 45x from 2005 to 2014, growing faster than both international trade or financial flows<sup>[1]</sup>**

[1] Digital Trade and U.S. Trade Policy, EveryCRSReport.com, May 2018

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## California Security of Connected Devices Law

- Takes effect January 1, 2020
- Governs any device capable of connecting to the internet (think IoT)
- Requires “reasonable security features” proportional to the device’s “nature and function” and the “information it may collect, contain, or transmit”

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## 3. Changing Technologies and Relevant Impacts

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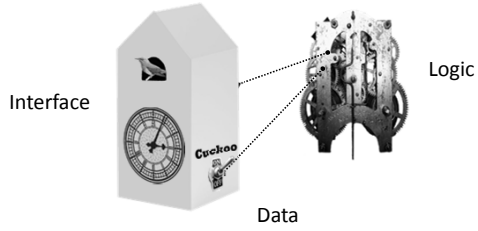
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## How Systems Work



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## Encryption

Vulnerability of messages in transit and data at rest



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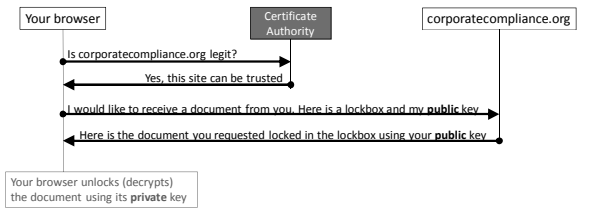
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## Encryption

Public key cryptography using secure sockets layer ("https")



In public key cryptography, the lockboxes and keys are all mathematical constructs.

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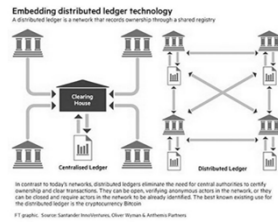
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## Blockchain

- Smart contracts
- Health records
- Voting systems

Legal Example:  
Smart contract code within blockchain to track trademark/grey market products or spend funds only when a required percentage of people agree.



### Conflicting forces:

GDPR and the right to be forgotten vs. Blocks of data that will live forever

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## Artificial Intelligence

- How are they building up AI?
- How will we deal with Automation of Jobs
- Aligns with the constant pressure to reduce headcount
  - Risk: Elimination of human control point

Organizations are using AI (artificial intelligence)  
for IA (intelligence augmentation)

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## Voice Activated Devices

- Legality – used as evidence in litigation
- Software updates, the way that they use data can change
- Always listening, how often are they recording?
  - State laws
- Lawyers: violation of ethical rules



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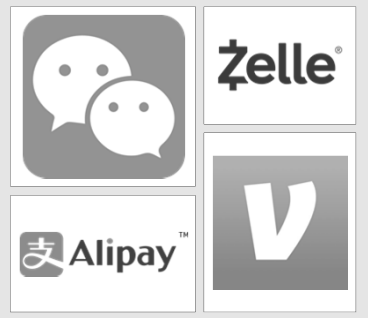
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**Cashless Alternatives**

- Auditable
- Security concerns
- Late development advantage

In Sweden, 2% of transactions are processed with cash, in the US 33% use cash.

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**Phishing**

- Prevalence
- Sophistication
- Targeting
- Constant updates required

- Average cost of a phishing attack for a mid-size company - \$1.6m
- 65% increase in phishing attacks in 2017[1]
- 30% of phishing messages get opened, 12% of those users click on the malicious attachment or link[2]
- 95% of all phishing attack on enterprise networks are the result of successful spear phishing[3]

[1] PhishMe's Enterprise Phishing Resiliency and Defense Report  
[2] Verizon Data Breach Investigations Report  
[3] SANS Institute

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**Data ownership**

- Giving control of data back to the original creator, instead of the platform
- Enterprise implications – businesses can share proprietary data without fear of theft or loss
- Fujitsu Data Exchange Network, IOTA Data Marketplace
- Privacy rules
  - Ease of clicking without reading
  - Backlash

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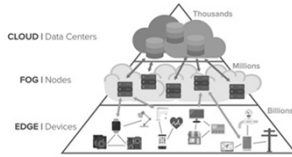


## Edge Computing

- Transferring the cloud to the fog, eventually to the edge itself
- A consequence of IOT, every sensor is generating a ton of data

### 5 benefits

- Faster response times
- Reliable operations with intermittent connectivity and offline functionality
- Security and compliance
- Cost effective
- Interoperability between legacy and modern devices



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## Prescriptive Analytics

- Corollary of predictive analytics
- Goes beyond identifying trends, using historical data and descriptive analytics to derive ideal outcomes or to create solutions

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## 4. Real World Implications

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# Uber

Was described as a "do whatever you have to do to get it done" environment.

Apple CEO Tim Cook threatened to have Uber's iPhone app removed from the App Store in 2015, when it learned that the ride-sharing company had secretly found a way to identify individual iPhones, even once the app was deleted from the phone. (The New York Times)

Uber disclosed a 2016 data breach, affecting 57 million riders and drivers. As a result, their settlement with the FTC pertaining to data mishandling, privacy and security complaints dating back to 2014 and 2015 has been expanded to include 20 years of privacy audits.

Uber is the subject of a United States Department of Justice inquiry over a program that it used to deceive regulators who were trying to shut down its ride-hailing service. (The New York Times)



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# Facebook

Last Year



This Year



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# Tesla

Last Month



This Month



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# IoT

2016

- In August 2016, a strain of malicious software detected 380,000 IoT devices still using unchanged, factory-set usernames and passwords.
- It used the devices to stage a Distributed Denial of Service attack, where certain servers were bombarded with requests from these devices, overburdening the servers and taking them down.



This Year



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# Theranos



- Board of Directors – “Never occurred to ask”
  - Do board members understand technology?
- How could they have gotten ahead of this?
- Role of attorneys in compliance:

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# Cybersecurity

- Must run analysis periodically.
- Risk: Penetration by bad guys to capture data, extract ransom
  - Review: policies, network protection, data protection, anti-malware, auditing, monitoring, detection, use of mobile devices
  - Contingency planning?
  - Third-party risks
- Awareness and training
- More specific rules
  - New York Cybersecurity Requirements for Financial Services Companies, 23 NYCRR 500
  - SEC disclosure rules for cyber risks and incidents, 17 CFR 229, 249

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## The Board and Cybersecurity

1. Do they understand technology structure of company and risks?
2. Is there a technology expert or tech. board committee? (audit committee not sufficient)
3. Have the board members taken cybersecurity training or participated in a breach simulation?
4. Is there a *Silicon Valley* scenario: We're not selling a product, we're selling the stock price

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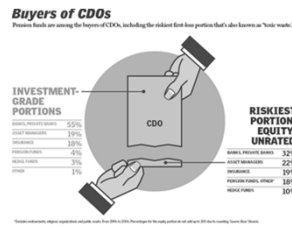
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## 2008 Financial Crisis

- Convoluted instruments went beyond most people's understanding
- How could we have gotten ahead of this?
- Never approve anything you don't understand: Enron



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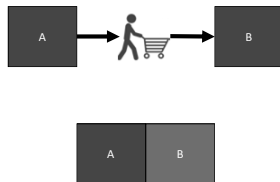
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## Understand Your Process

- Factory gets new facility, removes the need for an old man to take the batch of chocolate across the floor, inadvertently changes consistency of chocolate
- How do you maintain high levels of customer service, quality control and risk management when automating?



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## 5. Risk Assessment

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### Compliance Program Measurement

5 Essential Elements of Compliance	DOJ Compliance Program Evaluation 2017	US Revised Federal Sentencing Guidelines, Chapter 8, 2012	UK Bribery Act of 2010
Tone, leadership and messaging that includes an unambiguous, visible and active commitment to compliance; the Board must ensure compliance policies, systems and procedures in place	Commitment from senior and middle management, including clear messaging against corruption	Governing authority with knowledge and oversight Designated high-level personnel assigned responsibility for program Designated individuals with day to day responsibility and adequate resources/authority	Top level commitment to combat bribery
Risk assessments designed to provide a big picture of overall compliance obligations and identify areas of high risk to prioritize resources	Risk assessment process in place with regular information gathering and analysis and remediation	Organization responds to criminal conduct	Periodic risk assessment that considers internal and external risk
Standards and controls including 1) Code of Conduct; 2) Standards and Policies; and 3) Procedures	-Code of conduct and compliance policies and procedures -Incentive and disciplinary measures -Third party due diligence and payments -Mergers & acquisitions diligence	Standards & procedures to prevent and detect criminal conduct Prostrate ethics and compliance through incentive and disciplinary programs	-Proportionate procedures to prevent risk -Risk based due diligence
Training and communication with focus on training the right people with appropriate risk level consideration	Risk based training tailored for high-risk and control employees, analysts to determine who should be training and on what subjects Communications regarding misconduct	Communication and training	Communications (including training); policies and procedures are embedded and understood; training proportionate to the risk
Oversight to ensure employees are adhering to the compliance program	-Analysis and remediation of underlying misconduct -Autonomy and resources -Confidential reporting and internal investigation -Continuous improvement, periodic testing and review	Evaluate effectiveness Reporting without fear of retaliation	Evaluate the effectiveness of procedures and adapt where necessary

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### Technology Risk

- Compliance must have a seat at the table
  - Competing interests across the organization
  - Communication is paramount
- Think about all of the ways that new technology can expose company
  - Are functions legal? (specific regulations from FTC, FDA, etc.)
  - What if data breach?
  - Reduction of product/service quality?
  - Cost to remediate?
  - Covered by insurance?
  - Privacy?
  - Rejection by customers?
  - Constant monitoring and updating to deal with new threats?

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## Role of Compliance: Asking Questions

- What training is done (social engineering, risky use)?
- What security is in place?
- Is there a response plan?
  - Alternate site for processing, data storage?
  - Kill switch?
- Newly acquired businesses?
  - Insecure computer systems?
  - Inconsistent HR systems not supplying needed info for compliance program?
- How will we explain our cyber compliance program to a government enforcer if we get in trouble?
  - Does it show due diligence to develop a program?
  - Does it show due diligence to implement the program?
  - Does it show that enforcement should be against an individual instead of the company?

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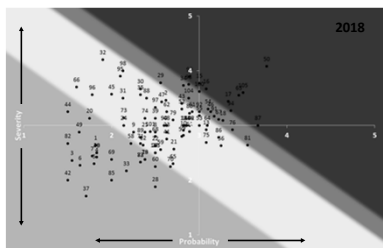
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## Prioritizing Risks



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**Thank You!**

*Enjoy the rest of the conference!*

Ted Banks                      Heidi Rudolph                      Gene Stavrou  
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