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# OPTIMISING DATA FOR MORE EFFECTIVE FORENSIC INVESTIGATIONS

REPRINTED FROM:  
RISK & COMPLIANCE MAGAZINE  
OCT-DEC 2021 ISSUE



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HOT TOPIC

# OPTIMISING DATA FOR MORE EFFECTIVE FORENSIC INVESTIGATIONS



## PANEL EXPERTS

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**Jared Crafton** is a managing director in BDO's forensics practice. He brings more than 18 years of experience leading investigations, proactive compliance programmes and litigation support. He has in-depth experience in forensic data analytics and data science, offering easy-to-understand analyses focused on key issues. He has led investigations and compliance reviews at government and private organisations to address fraud, FCPA, anti-money laundering, loan servicing, off label marketing, sales force behaviour and other issues facing organisations today.

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**Daniel Gold** is the managing director of BDO's e-discovery managed services within the forensics practice. His experience in e-discovery technical consulting, consultative advising and leading a national operations team for an IT managed services company has enabled him to provide a holistic and comprehensive approach to how in-house and law firm legal professionals can leverage technology to create a collaborative and dynamic approach to e-discovery. His passion for managed services has made him a known thought leader in e-discovery.

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**Daniel Burget** is a director in BDO's forensics practice. He has extensive financial fraud experience and expertise from a 26-year career in federal law enforcement as a special agent with the criminal investigation division of the Internal Revenue Service (IRS-CI). He has conducted and led complex financial investigations involving tax fraud, money laundering, Bank Secrecy Act violations, terrorism financing and related financial crimes. He has particular expertise in digital forensics in financial crimes from leading IRS-CI's Electronic Crimes Program.

**R&C: Could you provide an overview of the latest global trends and developments in fraud and corruption? How would you characterise the threats and challenge such practices pose for organisations?**

**Crafton:** We continue to see corruption being a major global issue across industries. One of the biggest trends we are seeing is more regulators from other countries getting involved in investigating corruption and levying fines to non-compliant companies. We saw record fines from several European countries last year. Separately, cyber security and specifically ransomware attacks continue to outpace countermeasures. Law firms and service providers are typically getting several calls a week now to respond to incidents.

**Gold:** There are three areas that are important for organisations facing increasing levels of threats and challenges. First, having an appropriate security posture allows for increased control and decreases the overall chances of events, such as cyber security breaches and successful ransomware attacks. Second, security policies are a critical component. It is one thing to have the right security framework in place, but it is equally important to ensure there is compliance as well. What we have seen is that the right approach starts with advisory services and then applying the tech stack, which includes e-discovery software. As it relates to fraud and corruption, having

a data journey story start with security, compliance and identity management will help the overall information and data governance approach.

**R&C: Against this backdrop, to what extent are you seeing rising demand for forensic investigations? Are there any recurring themes common to these investigations, in terms of the nature of fraud or corruption under the microscope?**

**Crafton:** We are seeing rising demand for forensic investigations. While some of the methods and controls circumvented are novel, for the most part these incidents can be generalised to greed and personal incentives. For example, the increasing use of cryptocurrencies has changed the landscape for certain frauds, but the underlying cause is the same as it was with paper currency.

**Gold:** While the technology has evolved, which has made finding the right data more difficult, the motives are the same in these types of matters. But importantly, it is the technology that we are seeing driving the demand. With more ways to store data in both structured and unstructured databases, an increasing number of data lakes in which data is also stored, and of course encrypted and ephemeral apps on mobile devices, the way forensic investigations are being conducted is more sophisticated than before.

**Burget:** The motivations for fraud and corruption remain unchanged. Even new technologies like cryptocurrencies are used by bad actors in the same way fiat currencies have long been used to transfer and conceal the source, nature and ownership of illicit funds. Therefore, forensic investigations must still follow the proverbial money trail, but there are two sides to this cryptocurrency coin, so to speak. While cryptocurrencies do provide a degree of pseudonymity, especially those designed to provide enhanced privacy, they also, by design, create an immutable public blockchain record that investigators can exploit to follow the money to a certain extent, provided they have the right tools and training. As new cryptocurrencies are developed on different blockchains, investigators must also learn to follow transfers across different blockchains, and the investigative data analysis tools must be continually advanced to enable this. This technological arms race for forensic investigators shows no signs of ending anytime soon.

**R&C: In what ways have forensic investigation processes evolved in recent years? What improvements have you seen in planning, approach and execution?**

**Crafton:** In the last few years, we have seen significant progress in how data is being utilised to maximise the planning stage and increase efficiency in execution. The greatest efficiencies have been gained through minimising the noise that is present in

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*Jared Crafton,  
BDO*

huge corpuses of data, whether that is unstructured data like email or structured data like financial records. An increase in the power and capabilities of analysis tools have allowed investigators to cull huge amounts of information relatively painlessly as opposed to manually reviewing all collected information. The next step for most companies is to industrialise these processes within the organisation so that these efforts never have to be duplicated and previous analytical efforts can be reused.

**Gold:** There has been a more disciplined and structured approach adopted in recent years. In

fact, both the advancements in artificial intelligence (AI) and machine learning (ML) as well as lawyers' increasing openness to try the same has led to less human error. When utilising data analytics tools that have AI and ML built-in as 'bookends', for instance using them in the beginning to find more relevant data faster before human review and at the end as a quality control check after human review, drives efficiency and brings down the overall cost of these matters.

**R&C: To what extent can forensic investigations be made more efficient through the application of data-driven optimisation techniques? What steps can be taken to achieve this?**

**Crafton:** Utilising data for the purposes of a forensic investigation is now the expectation from regulators, boards, audit committees and C-suites. Many companies that have been through the burden of an investigation have learned lessons about how to organise their data, what data to protect, and what data they do not need. We would advise companies to look at their information governance and think critically through how they would identify, collect and analyse their data in the context of an investigation. There are always gaps and investing a little bit of time in

planning for bridging these gaps can save significant time and money should an investigation pop up.

**Gold:** We cannot underscore enough just how important it is to have an information governance and data protection policy in place as part of the data journey story an organisation tells. Being able to perform data maps to understand who is creating the data, where they are creating the data and on what devices they are creating that data helps reduce risk. Leveraging technology that creates alerts about specific words being used in internal communications also reduces risk and ensures the appropriate levels of compliance. If this goes right, by the time there is

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an investigation, compliance or litigation matter, it becomes much easier to then put a legal hold on a custodian of relevant data, preserve said data and collect that data. In other words, by spending the

time and effort upstream, the downstream motions of e-discovery become a seamless part of the overall data story and it will save organisations a lot of money.

**R&C: How can new and emerging technologies, such as artificial intelligence and machine learning, assist forensic investigators with identification, litigation and asset recovery processes?**

**Crafton:** One of the biggest innovations of the last few years is the rise of the ‘citizen data scientist’ and ‘no-code’ data analysis platforms. What previously took advanced computer science skills can now be accomplished through a series of clicks in one of these platforms. This democratisation of analytics has brought an influx of ideas and new methods to this space. We encourage parties to start exploring these areas and really put their imaginations into action through data.

**Gold:** The influx of new technology applications to help mine data has come with its share of obvious concerns as well, such as ‘bias’ in the algorithms. Additionally, while some departments may be quicker to adopt such AI and ML technologies, lawyers are typically slower to adopt. The good news there,

though, is that in the US there is an ethical duty under Rule 1.1 of the Rules of Professional Responsibility that says for lawyers to be ‘competent’ they must understand ‘relevant technologies’, such as AI and ML tools.

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**R&C: In what ways has the emergence of coronavirus (COVID-19) added extra levels of complexity to how a forensic investigation is conducted? What specific data challenges has the pandemic posed, and how are investigators circumventing these hurdles?**

**Crafton:** We have seen changes, both in how companies are operating but also in how investigations are being conducted. On the operations side, many companies were unprepared for their

workforce to go remote and thus had to quickly implement file sharing and collaboration tools without the luxury of thinking through how this impacts business records. Many companies created new repositories and had to bypass certain controls which can make it easier to perpetrate fraud and corruption. On the investigation side, just like any other business, we have had to adapt to conducting more of our work remotely. There are added challenges to not being on-site when conducting an investigation and like other industries, we are relying more on technology and analytics to bridge the gap.

**Gold:** The pandemic has brought about a lot of positives in the technology space, as well as many unforeseen data security and data protection issues. On the positive side, more technology and data analytics tools are being adopted, whereas there was hesitancy prior to the pandemic. Much of it was brought on by necessity, and no doubt it is here to stay. On the other hand, a lack of a tight security policy and appropriate controls led to storing company data on unregulated storage devices, apps and even company resources were being accessed on unregulated personal devices. From a digital forensics perspective, this of course leads to a much more costly and time-intensive approach to finding the right data stored on the right devices. Understanding this has led to positive change over the last year and a half.

### **R&C: How do you expect forensic investigations to further evolve? What data-related innovations in approach and application are on the horizon?**

**Crafton:** The rate at which AI and other advanced data science techniques are permeating our industry increases every year. The next evolution is potentially around more information sharing and collaboration among organisations. By sharing information of both internal and external threats, companies will be in a better position to defend against coordinated cyber criminals and state sponsored threat actors.

**Gold:** The way organisations create, store and share data is becoming increasingly complex. Just think of how many ephemeral data apps are out there today and the policies and compliance that must be mapped around this emerging technology. Additionally, advisory firms that work with companies and start with the services first can help companies with their overall security posture and drive innovation through business intelligence dashboards that provide data transparency and critical intelligence about the data that simultaneously contain costs. **RC**