

Cross your Techs and Dot your A.Is! (Artificial Intelligence in the World of Compliance)

Today competition policy plays an important role on how business behave around the world. In actual fact, competition law is present in every aspect of any business, and affects the way one manages their company on a daily basis. Yet, whilst competition authorities have imposed fines with sharply increasing severity, and in some jurisdictions, imprisonment, there appears to be no solid evidence that anti-competitive conduct – particularly cartel conduct – is declining. It is against this background that companies are constantly urged to take proactive measures in order to reduce, if not eliminate, competition law breaches. One of the most important and effective tool to achieve such goals is internal audits. Unfortunately, too many companies are reluctant to use such a tool as they believe that conducting an audit and/or implementing a monitoring system is just simply too costly, time-consuming and interferes with the business. In this article, we explore why this is not the case and how business can have the best of both world: an effective and non-disruptive auditing system without the price tag.

Auditing and monitoring for compliance purposes can be something of a Sisyphean task: the mountain of data just keeps getting bigger, and the best you can usually hope for is to tread water and not actually lose any ground. A sample from a month's worth of data tends to take about a month to review and, before you have a chance to catch your breath, the next set has arrived for processing. Added to that is the risk inherent in only reviewing a sample (as is usually the case) – unscrupulous employees will confidently engage in obvious illegal activities, secure in the knowledge that only a very small proportion of transactions are actually checked for compliance.

There is no doubt that in-house lawyers and compliance officers often face a formidable task in determining when, and most importantly, what the scope of an audit should be. But contrary to popular belief, internal audits do not have to be costly, or time-consuming or even disruptive. Audits, in particular document collection and review do not have to be linear, top to bottom and most importantly they do not require an army of lawyers to undertake the review. They can be targeted, quick and efficient if you know what tools are out there and which one is right for you.

Intelligent Humans alongside Intelligent Tech

While anyone who takes pride in their work will be resistant to the thought of allowing AI to conduct the review instead, it can be very beneficial to incorporate analytical technology to assist with identifying documents for review. Rather than sampling randomly and wasting time reviewing entirely non-contentious documents, intelligent technology can be used to narrow down the pool of documents so that everything reviewed has been assessed as high risk, thereby greatly increasing the likelihood of detecting any fraud or illicit activity.

Examples include:

Pattern matching: Transactions can be analysed across a variety of criteria to spot patterns and, more importantly exceptions to the pattern. Are there transactions at unusual times of day or at weekends? Are there multiple transactions just below the employee's approval limit? Is there a sudden spike in a particular type of transactions, or to a particular vendor? When analysed and grouped in different ways, areas of potential concern can be significantly easier to spot, allowing the review to focus in the most relevant areas.

Communications mapping: Communications mapping could be seen as a subset of pattern matching, whereby communications between individuals are mapped out in a diagram showing the participants with the largest number of communications and also who they are communicating with. In most cases, the pathways with the most traffic are conversely the least interesting, but unexpected connections between people who had no legitimate business reason to communicate could be very telling.

Entity extraction: Entity extraction is commonly used in conjunction with communications mapping to give a more meaningful picture of the pattern of communications. Entity extraction recognises names, email addresses and other ways to identify individuals, and links all references to a person together. This means a search for "Timothy Johnson" will also find "Tim Johnson", "Johnson, Timothy", "timothy.johnson@euclid-law.eu", as well as "tj637@gmail.com <Tim Johnson>". Entity extraction can also identify other types of entities such as locations and organisations.

Audio analysis: Audio and video files can be accurately transcribed regardless of language or accent, and translated if necessary. While traditionally transcription and translation were of poor quality with limited usage, recent advances in the technology mean these are now valuable components of the investigator's toolkit. Audio can be keyword searched and redacted, and video files can even be searched for objects or logos. All of this makes real-time monitoring of thousands of phone lines or video feeds a viable reality.

Key term/topic identification: Intelligent analysis of the content of the data set allows the system to "learn" the meaning of terms in the context of the review. This allows it to understand the difference between (computer) chips and (potato) chips, as well as deciphering code words or project names. The results of this analysis can be used to group similar documents together, identifying related content even where the same keywords don't exist. It can also be used to give an overview of the topics that exist in the entire document universe, allowing the review to immediately focus in on unexpected subjects.

Sentiment analysis: A key analytical feature in a modern toolkit is sentiment analysis. Using intelligent algorithms, the system is able to identify the tone of written and verbal communications, and flag them accordingly. Communications where someone sounds nervous, hesitant or even scared is almost always a good place to

start looking for illicit activities. Bullying or coercive tones could also be cause for concern, as would defensiveness or self-righteousness when it comes to justifying past behaviour. The list goes on, but factoring in the tone of the communication with other search criteria can help narrow the review pool.

PII Detection & Redaction: PII Detection is fast becoming the most talked about topic in electronic review circles. Advanced algorithms can quickly detect a wide variety of PII in different formats based on context and/or pattern matching. These can be reviewed and manually redacted as required, or fed into an automated redaction workflow.

Predictive Coding: While all of the previously discussed analytics features allow a reviewer or investigator to identify areas for concern and reduce the number of documents requiring review, sooner or later there comes a time when the pool of remaining documents just need to be reviewed. This is where predictive coding (aka assisted review, TAR, CAL, etc) comes in. Predictive coding uses machine learning to extrapolate an understanding of what is relevant and what is not from the review decisions already made. This allows it to prioritise the most likely relevant documents and feed them to the reviewers first. As more review is conducted, it has more examples of relevance and non-relevance, and so its definition becomes more refined and more accurate. Depending on the nature of the investigation, this may be used for prioritisation, or could be used to confidently exclude a large proportion of the documents that are extremely likely to be non-relevant.

Make it all flow!

When it comes to using technology for any form of document review, the key element is workflow. Knowing what intelligent technologies are available and how they work is only the beginning. Understanding how to combine them to build an efficient and defensible workflow is where it really starts to pay dividends.

For example, running audio transcription before any searches means you can include phone calls and other recordings in your normal workflow. This saves you committing a significant amount of time to manually listen to every call, but also means you can better understand the context of communications when (for example) an email begins “per our earlier conversation”. You could then combine features to search for communications between specific individuals discussing particular topics with a negative tone. You might want to investigate conversations outside of usual working hours that mention money. It might be relevant to identify emails about business-related topics that are being sent to personal email addresses. Finally, once the pool of potentially relevant documents have been identified, predictive coding could be used to prioritise the order of review and ultimately reduce the burden.

Use it or lose it!

Fortunately or unfortunately – depending on your perspective – intelligent technology is not yet developed enough to completely remove the need for human intervention and review. Rather, it is a tool that can dramatically improve the investigator’s understanding of the content of a vast set of documents, and help them to quickly hone in on the areas of concern. Where traditional keywords or random samples would commonly miss a large proportion of potentially relevant material, using advanced technology allows meaningful and intelligent selection of the documents that are most likely to be significant, reducing the pool of documents to be checked without compromising on the integrity of the review. Whilst these new technologies are user-friendly and their adoption as part of your compliance programme should not be feared, it is always wise to first seek the advice of external legal and technology advisers who can help you in determining which area of your business should be targeted and which tool might be the most appropriate.

More about the Authors



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A Relativity Master and experienced e-disclosure project manager, Rebecca joined Inventus as a Senior Project Manager in 2014 after 7 years with KPMG. With a degree in Computer Engineering and a masters in Digital Forensics, Rebecca has worked with numerous review tools over the years, but now primarily focuses on Relativity including developing and managing processes, and advising clients on workflow and strategy. With extensive knowledge of linear review, analytics, and technology-assisted review

workflows, Rebecca is an expert in understanding a client’s needs and tailoring a solution to them. As Director of Technical Solutions, Rebecca is responsible for identifying and evaluating both new products and updates to existing technologies.



Marie Leppard is a partner at Euclid Law, The Competition Law Firm. Before joining Euclid Law, Marie was a senior associate at Clifford Chance’s antitrust practice (London and Paris).

Marie assists clients on French, UK and EU antitrust investigations, complex multi-jurisdictional mergers and abuse of dominance cases. Marie’s practice focuses mainly on cartel investigations. Marie has worked on numerous high-profile cross-border cartel investigations before the European Commission, the CMA, the FCA and the US Department of Justice.

Marie has also vast experience in providing clients with compliance framework and training as well as advising on the use of the latest technologies and artificial intelligence in internal audits and cartel investigations.



About Euclid



Euclid Law was created by experienced competition lawyers with a common desire to build a new competition law firm that is agile, collaborative, highly commercial in its thinking, innovative in its approach to delivering results and free from the constraints of larger law firms.

Our core expertise covers all aspects of competition law, including cartels and anti-competitive agreements, merger control, abuse of dominance, state aid, competition litigation, market investigations as well as audit and compliance. With offices in both London and Brussels, in-depth experience and a network of contacts in key jurisdictions around the world built up over many years of practice, we have the ability to advise clients across Europe and worldwide. We represent clients before EU, UK, German and Belgian authorities and courts.

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