



TAI

Technology Assisted Investigation

A Quick Guide for Superior Fact-Finding



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Welcome To TAI

Technology Assisted Investigation

As an investigator you look for the facts. Reviewing documents is merely a means to an end. Technology can enhance your understanding, hone your thought process, and work within your fact-finding flow.

With TAI, you can use the same technology that drives efficiency in eDiscovery document review without the burden of a bulky review process. Analytics amplify your ability to gather and identify the key facts necessary for your investigation quickly, efficiently, and confidentially.

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3 Key Guidelines

THREE KEY GUIDELINES THAT KEEP
INVESTIGATIONS FRUITFUL AND EFFICIENT

- Define goals and desired outcomes for the investigation
- Define topics to focus in on
- Understand the data



Chart a course and follow it

Investigations are about answering questions.

The answers to these questions tend to fall into two categories: comprehensive or specific, depending on what kind of data needs to be identified.

To find comprehensive answers, you want to see all of the related documents to get the complete story of what happened. By contrast, for specific answers you just need to see the best or earliest example documents on a topic.

The investigation techniques and the technologies that are well-suited to those objectives are explained in this guide.

Start With The End in Mind

The first step in an investigation is to understand the desired end result and work backwards. Different kinds of investigations demand different outcomes, and therefore different workflows, which raises the question: What kind of an investigation is at hand?

- Is it in response to a whistleblower?
- Is it an HR investigation?
- Is it an FCPA fraud investigation?
- Is it for internal decision making purposes?
- Will it be pivoted into a lawsuit?

These are all project scoping questions and the answers will determine appropriate approaches.

Once the investigation has been classified, it is easier to define success because certain issues and topics take prominence. For instance, in an export control investigation an attorney would want to find evidence related to scienter as a key asset to increase negotiation leverage.

Alternatively, in an HR investigation, the goal may be to find some kind of exculpatory or inculpatory evidence that can verify the authenticity of a complaint. The former being a specific investigation looking for very particular information and the latter being a comprehensive investigation looking for all the related documents to the HR claim.

“ A successful investigation starts with the end in mind and goes backwards from there to structure a workflow. ”

A photograph of two business professionals, a man and a woman, both in dark suits, standing on the wide stone steps of a grand, classical building entrance. The man is on the left, looking towards the woman on the right. The building features a large, ornate wooden double door with a semi-circular window above it. The scene is set against a white background with a large green diagonal graphic element on the left side.

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Define Topics

What questions are you trying to answer?

Once the outcome is clarified, lawyers must define the topics of an investigation necessary to achieve that outcome. If the purpose is to decide whether or not to settle an HR claim, then the topics become much more specific: Is the complainant's allegation true? Did an employee create a hostile work environment? On the other hand, if the desired outcome is more general, the investigation is more challenging to complete.

Here are two examples:

- Did the company violate export controls?
- Did the company ship controlled widget X to restricted country Z?

The **first example** is a comprehensive investigation; you want to know everything about the export process. The **second example** is specific; you don't need to know everything about the export process, only the export process related to X and Z.

Investigators work better when they have a specific topic to search. If you can find a way to anchor the subject matter to specific topics, it will be a much more efficient and effective investigation.

“ If you know what you are
looking for, it's easier to find. ”



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Take Control of Your Data

With the investigation goals and topics in place, it's time to profile and control the data. There are 3 objectives in this process:

- Hold and preserve data
- Profile and understand the data formats
- Design and control appropriate workflows

Initially, it's a good practice to issue a litigation hold to preserve data. Beyond protecting against a spoliation sanction should the investigation pivot into a lawsuit, any number of factors could cause the loss of key data that completes the investigation. Preserving data also gives you a baseline estimate on the project size and scope.

Next, profile and understand the different data formats in your investigation. This is critical to designing the right workflow and using the right tools. For example, if your data is largely email and chat, then plan on integrating more context analysis and relationship tools. Picking the right tool that won't slow you down is key. For communications analysis use a tool that can suppress junk information commonly found in chat and email such as entrance and exit messages or disclaimers.

“ Once you establish data parameters,
it’s time to build a workflow. ”



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3 Key Technologies

THREE TECHNOLOGIES THAT MAKE FOR
SUPERIOR FACT-FINDING INVESTIGATIONS

- Visualizations
- Search analytics
- Machine learning



The Investigator's Toolbox

Visualizations help investigators understand the dataset at a glance. Histograms show the contour of data across dates, highlighting peaks and valleys of communication. Hypergraph maps communication patterns between key players, entities, and organizations. With a little bit of context, these visualizations can be extremely powerful. Plus, visualizations can interact with search analytics, so you can quickly understand when a specific topic was discussed and by whom to provide the foundation of proof for your investigation objectives.

Search analytics come into play to narrow the documents with filters derived from investigative judgment. Some of the analytics are familiar (e.g., metadata filters on date, author, file type). Other analytics such as phrase analysis and concept search are more innovative and use context engines to power-up what would otherwise be a simple keyword search. Phrase analysis will automatically identify common word pairings with keywords as they are typed. And concept analysis automatically groups documents in your investigation according to content.

Machine learning is a powerful tool for understanding a large dataset. Using the documents that you've already found, the computer can learn the patterns and characteristics of the information sought and quickly prioritize the most likely documents for investigators to check.

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3 Key Techniques

THREE TECHNIQUES THAT MAKE FOR SUPERIOR
FACT-FINDING INVESTIGATIONS

- See the data, then read the data
- Using analytics
- Proving a negative



Techniques for TAI

Now that you know about the technologies available, it is time to talk about how to use them.

In the next pages, we will outline techniques for answering questions using technology in a way that fits seamlessly into the investigation thought process.

See the Data, then Read the Data

One of the biggest challenges in an investigation is just getting an initial understanding of a large dataset, which may include millions of documents.

Interactive visualizations offer a way for investigators to get a broad understanding of these enormous datasets with a few clicks. They are also powerful investigatory tools because they display patterns that are almost impossible to discern by reading individual documents.

Date visualizations are a great starting point for any investigation because they automatically map out data patterns over time. You can add any number of filters to your search and focus in on one specific custodian and time frame.

Hypergraph communication visualizations literally connect the dots between key players in your investigation. They are indispensable when your investigation is focused on correspondence patterns.

Date visualizations display **when** people were talking. Hypergraph visualizations show **who** was communicating by mapping all the authors, domains, and patterns of your dataset.

“ With visualizations, you immediately see patterns in the data. ”



Using Analytics: Narrow to Broad

There's usually a piece of evidence that can serve as a launching point. It may be an incriminating email, a time frame of interest, or a custodian—like a whistleblower—known to be involved with the investigation. Be curious; start with what you know and then use technology to see where it takes you.

Step 1 — Start with what you know

A keyword, a date range, a document, or even a combination of all three may give you a great starting place. Run a search, use metadata filters and read some documents to find examples of what you are looking for.

Step 2 — Use analytics to broaden scope

If it's a custodian that you are focused on, use Hypergraph to identify other persons of interest. If it's an incriminating email, determine keywords and use phrase analysis to add additional documents.

Step 3 — Do a sweep for conceptually similar documents

The crucial technology here is machine learning, which can be used to analyze the documents you've found and identify other likely documents automatically. By using machine learning you can locate a larger body of evidence that answers a trend or general question.

1

Identify known documents
and custodians



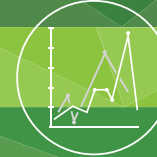
2

Apply analytics and
visualizations to find
related information



3

Use machine learning
to scan for conceptually
similar documents



Using Analytics: Broad to Narrow

Now you have a foundation of documents on your topic of interest. With the right tools there is no need to do a full manual review. Think of the foundation as a basecamp from which you can apply different advanced analytics for different trails of knowledge. Only review targeted, focused documents.

Step 4 — Narrow the results

Use metadata filters such as date ranges, authors, senders, domains, and document types to cut out unnecessary documents that aren't relevant to the investigation.

Step 5 — Understand the context

Now use metadata, phrase analysis and visualizations to understand context. Explore the communications around the concepts. Understand who is involved, when, and how they were communicating. Find the patterns that lead to answering questions.

Step 6 — Review the most important documents

Limit in-depth review to those documents that are most likely to contain the evidence. Approach the review with confidence given the comprehensive methods used to get to this set.

4

Apply metadata filters to narrow the dataset

5

Leverage phrase analysis and concept groups for contextual insight

6

Review isolated evidence and present findings



Proving a Negative

Sometimes the evidence just isn't there— and no amount of searching will find something that doesn't exist. However, the investigation objective persists nonetheless.

In this situation, you have to prove a negative (i.e., you have to prove that something didn't happen).

Step 1 — Look for gaps

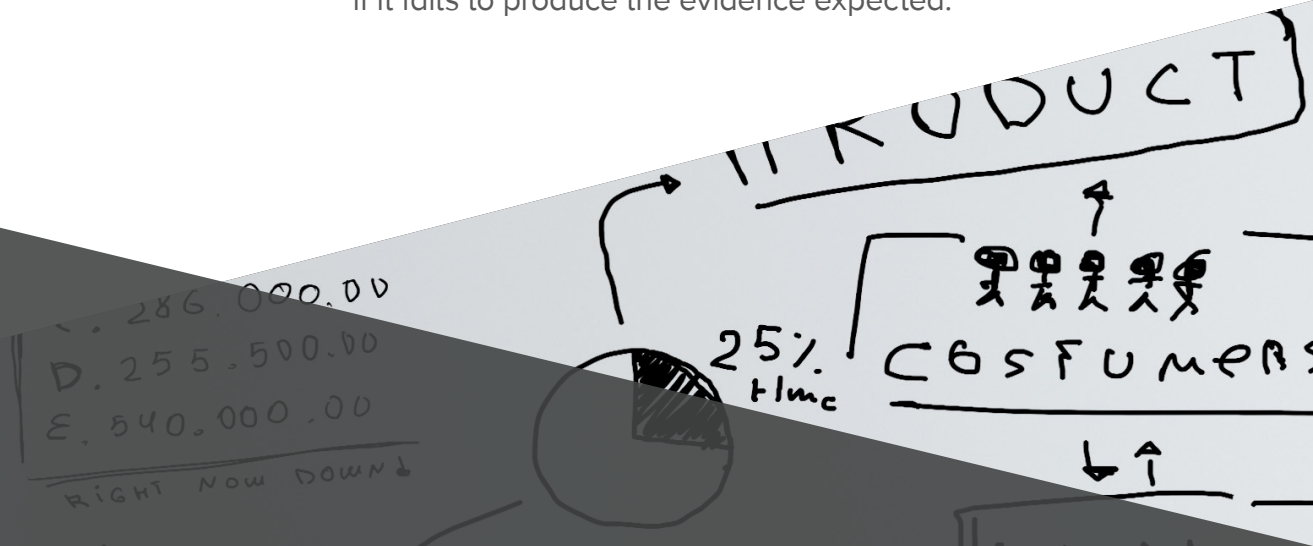
If you aren't finding expected evidence, check the data for gaps either in the collection or in your investigation effort. Date and communication visualizations of the collection or search results can show irregularities. Is a drop in the document count due to missing data that wasn't collected? Does your interrogation of the data need to expand to include other ideas or individuals?

Step 2 — Prove a different positive

If one thing didn't happen, chances are that something else did. Use your understanding of the data to prove an alternative explanation that defies the assumptions of your investigation.

Step 3 — Document the process

Document how you built the dataset, culled it down with filters to a foundation, and then used analytics to explore the contents. Here, the process is just as important as the results. A reasonable and thorough process will be defensible even if it fails to produce the evidence expected.



“ Sometimes the relief is knowing that what’s not there really isn’t there. ”



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Transforming Investigations

Recommind provides the legal industry's most powerful and intuitive data analytics for fact finding and sophisticated analysis. A Gartner Magic Quadrant Leader year after year, we offer complete, end-to-end investigation and eDiscovery software and services by a world class, worldwide team.

Headquartered in San Francisco, with offices across the U.S. and E.U., Recommind has been serving the needs of the legal industry since 2001, with a client base that includes many of the world's most prominent technology companies, law firms, government agencies, and financial institutions.

Learn more about simplifying your investigation and compliance process. Contact us for a free, personalized consultation or price quote for your next project.

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The logo for RECOMMIND, featuring the word in a bold, sans-serif font with a registered trademark symbol. The background of the entire image is a light gray with a faint circuit board pattern. A large, solid green diagonal shape cuts across the center. On the right side, there is a partial view of a magnifying glass with a black handle and frame, focusing on a small screen that displays green binary code (0s and 1s).

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