

ACCESSING LOCKED SOCIAL MEDIA ACCOUNTS

A DIGITAL FORENSICS CASE STUDY

THE SITUATION

The client needed to collect data spanning from 2012 to present day from specific custodians' machines and personal, business, and social media accounts. ID's forensic experts concluded that there were at least ten custodians that could be collected from – however social media login credentials could only be provided for two of the ten.

THE SOLUTION

For the remaining platforms, ID took advantage of the multiple custodians in the request and the likelihood of their connection to one another on various and multiple social media sites. As long as ID possessed the login credentials for one custodian on a specific platform, ID would be able to complete a Concerned Party Collection for any other custodians connected to the first user. When a connection between two custodians could not be found, ID employed the Anonymous User Collection method.

Concerned Party Collection – Login credentials are not provided/known. ID does not have full access to custodian's account but can collect data by viewing custodian's account through a related user (i.e. a "friend").


Anonymous User Collection – No account information or login credentials are provided. ID can only collect data that is available to the public.

THE RESULT

In conclusion, ID extracted data from 15 different custodians and provided over five times more data than the client initially anticipated, properly preparing them with the information they may need for litigation.



15
different sources of extracted data



5x
more data produced than expected



COMPREHENSIVE SOLUTION BEAT THE DEADLINE

A MANAGED REVIEW CASE STUDY

THE SITUATION

A large corporation was sued for alleged breach of contract and tortious interference and needed to review and produce a large volume of data in less than two months. The client needed help collecting data from more than 60 custodians in multiple locations, much of which was contained within unusual file types

THE SOLUTION

ID's licensed forensic examiners spearheaded the collection process, which included over 8TB of complex data. Bearing in mind the time constraints, ID implemented a separate processing environment, allowing the data to be de-duplicated, date filtered, then loaded into Relativity in less than three weeks. Furthermore, ID's programming team incorporated new features into the platform to streamline the processing of unusual file types.

ID's Managed Review team collaborated with the client to design and implement a defensible technology-assisted review (TAR) workflow to manage the volumes of rolling data. ID applied a broad privilege search term screen to the data universe to identify potentially privileged documents, which were promoted to human review. The documents that did not go through human review were statistically sampled prior to production to ensure the privilege screen was comprehensive.

THE RESULT

The TAR workflow surpassed the recall rate agreed to by opposing counsel and ultimately producing over 1 million documents. By utilizing ID's workflow, the client met production obligations ahead of schedule and saved over \$1 million in attorney review costs.



\$1 million+

saved by utilizing ID's
experts and TAR



IDENTIFYING OVERLOOKED SOURCES ON SOCIAL MEDIA

A DIGITAL FORENSICS CASE STUDY

THE SITUATION

The client needed to collect data spanning from 2012 to present day from specific Custodians' machines and personal, business, and social media accounts. ID's Forensic Experts analyzed these and concluded that there were at least ten more sources that could be collected from – however login credentials could only be provided for two of the ten sources.

THE SOLUTION

For the remaining platforms, ID took advantage of the multiple custodians in the request and the likelihood of their connection to one another on various and multiple social media sites. As long as ID possessed the login credentials for one custodian on a specific platform, ID would be able to complete a Concerned Party Collection for any other custodians connected to the first user. When a connection between two custodians could not be found, ID employed the Anonymous User Collection method

THE RESULT

In conclusion, ID extracted data from 15 different sources and provided over five times more data than the client initially anticipated – significantly reducing the client's exposure to any information previously thought to be unobtainable.



15
different
sources of
extracted
data



5x
more data
produced
than
expected



LEVERAGING PREVIOUSLY REVIEWED DOCUMENTS

A MANAGED REVIEW CASE STUDY

THE SITUATION

The client needed to review 150,112 documents for responsiveness and privilege with limited resources available and a ten-day deadline. Due to the time constraint, the client could not conduct the multiple training rounds necessary to reach peak accuracy and a small portion of the review universe had been previously reviewed under a different protocol.

THE SOLUTION

ID created a workflow incorporating technology-assisted review (TAR) to efficiently review the necessary documents. Rather than re-reviewing the previously reviewed documents, ID leveraged this existing work product by selecting “hot” documents and repurposing into training examples for the seed set during categorization. ID conducted extensive verification sampling to mitigate the risk of inaccurate decisions made by the categorization algorithm.

At the beginning of the TAR review, the total number of documents in the review universe was 150,112. Once privilege term screening and culling were completed, the resulting TAR review universe was 107,053 documents requiring human responsiveness review; 24,222 documents requiring human privilege review; and 50,003 documents that DID NOT require human review.

THE RESULT

The client to met the production deadline while achieving significant time and cost savings – over \$150,000 – when compared to a linear review.



\$150K

saved by utilizing ID's experts and TAR



IDENTIFYING PII WHILE MAINTAINING SECURITY

A DIGITAL FORENSICS & MANAGED REVIEW CASE STUDY

THE SITUATION

The client, a prominent distributor in the food & beverage industry, needed help with an internal investigation of a terminated employee's laptop that contained personally identifiable information (PII). In order to provide a full disclosure to the court, the client needed to analyze the laptop and identify the extent of the PII that was potentially released. Because there was no access to original laptop, the client provided ID an encrypted backup copy on a hard drive.

THE SOLUTION

Using the backup copy, ID's digital forensics team assessed the data and expanded the investigation to include pattern searches of social security numbers, bank routing numbers, and credit card numbers. Within 48 hours of receiving the backup, imaging and pattern searching was completed and all data responsive to the searches was loaded into a Relativity workspace for review.

Once the data was transitioned to the managed review team, ID assembled a team of reviewers with experience specific to identifying various types of PII. The review team identified the customer name, type of PII, and contact information. Each reviewer's coding decisions were subject to a thorough quality control process and the final results were exported into a comprehensive report for the client.

THE RESULT

The managed review was completed in ten days and the entire process, from receipt of laptop data to delivery of final PII report, was completed in under two weeks. ID's ability to provide end-to-end services in-house significantly reduced the risk of exposure. The client met their court-mandated deadline, avoiding data breach liability and further exposure to the company and their customers.



RESPONDING TO THIRD PARTY SUBPOENAS

A MANAGED REVIEW CASE STUDY

THE SITUATION

The client, a multi-million dollar investment firm, needed help preparing their response to a third party subpoena for documents relevant to an ongoing lawsuit, and wanted to be confident that their response would not include information pertaining to other matters. Consequently, the entire review universe would need to be reviewed to ensure all documents were appropriately withheld or redacted.

THE SOLUTION

As the review universe for this matter was relatively small, only 3,875 documents, and each document required review, ID deployed specific analytic tools that would best serve as organizational methods.

Email threading allowed for review of an entire email conversation at once and in logical order. Clustering created an organizational method for all non-email documents within the review

By utilizing email threading and clustering as organizational methods in this review universe, ID was able to complete this review in a shorter amount of time without sacrificing a higher quality of consistency in the results.

THE RESULT

Despite the smaller number of total documents requiring review, ID's application of analytics and use of legal reviewers saved the client over \$17,000 when compared to a linear review performed by outside counsel.



\$17k

in cost savings using technology-assisted review.



THE DEFENSIBILITY OF SELF-COLLECTION

A DIGITAL FORENSICS CASE STUDY

THE SITUATION

The client, a multi-billion dollar construction & manufacturing company, needed to defensibly collect and preserve data from 25 custodians across multiple locations and an unknown number of varying types of mobile devices.

THE SOLUTION

ID traveled to the client headquarters for one-week, coordinated with each custodian, and collected over 50 different devices which consisted of many major manufacturers - including Apple, Motorola, and Samsung.

ID was able to provide end-user guidance to the client for multiple solutions and demonstrate each tool's strengths, challenges, and overall capabilities that would be most applicable to the client's needs. For this specific collection, ID provided a comprehensive report for each device collected, and used these results to present the different software solutions in a manner that would be most similar to how the client would use these in the future. As a result, the client had a better understanding of investigative software and was confident moving forward with self-collections in the future. By completing the forensic collection with the client on-site, ID was able to demonstrate the entire process across multiple types of devices and operating systems.

THE RESULT

ID was able to successfully complete the mobile device collection, educate the client on forensic software solutions, and enable the client to complete a self-collection that would limit the argument against defensibility in the future. The client continues to partner with ID for more complex forensic requests and consults with the Digital Forensics team on a regular basis.



50+

different
devices collected



REDUCING SPEND WITH QUALITY CONTROL

A MANAGED REVIEW CASE STUDY

THE SITUATION

The client needed to review approximately 120,000 documents in multiple languages for responsiveness and privilege for production to a government agency. In addition to foreign language documents, the threshold for responsive documents was very narrow and the privilege determinations were difficult due to third parties, requiring a second level review workflow. Initially, the client proposed using search terms to the government agency to reduce the review universe and total review hours. The government agency neither approved nor denied the proposed search terms, leaving the client with a difficult decision on how to proceed in the most efficient, yet cost-effective way.

THE SOLUTION

ID employed email threading to group email conversations together into logical threads and language identification to separate email threads based on the languages therein and batch these records for the review team fluent in the corresponding language.

Documents reviewed by the first level review team went through ID's quality control (QC) workflow and were then subject to the second level review workflow (2LR workflow), conducted by the client's retained counsel. Retained counsel confirmed that the QC performed by ID was a valid replacement for their second level review. As a result, retained counsel reviewed only records identified as key documents and performed high level checks prior to each production.

THE RESULT

Had retained counsel continued the second level review, the review would have included approximately 15% of the universe. However, their confidence in ID's QC abilities and project management team allowed retained counsel to ultimately review closer to 2% of the universe, saving the client over \$140,000 in overall review costs.



\$140k+

in cost savings using ID for second level review.



REDUCING SPEND WITH QUALITY CONTROL

A MANAGED REVIEW CASE STUDY

THE SITUATION

A corporate client needed a review completed of an internal investigation in five business days. Due to the sensitive nature of the investigation, a single in-house subject matter expert (SME) was assigned to this review to assess whether there was an issue warranting further action.

THE SOLUTION

Given the aggressive deadline and the restriction of having only one SME review the documents, Innovative Driven proposed employing the use of analytics to strategically organize the review.

1. Search terms were used to identify the review universe.
2. The relevant search terms resulted in approximately 5,000 documents (documents with a relevant search term hit and their family members).
3. The potential review universe was drawn from an email collection.
4. The potential review universe of 5,000 documents is approximately 2.3 GB (2,200 documents per GB).

THE RESULT

ID's expert reviewed only 815 documents and the review was completed in three days, saving the client a total of \$31,505.00.



\$30k+

in cost savings using
analytics.



EMAIL ARCHIVING FOR A GOVERNMENT INVESTIGATION

A DIGITAL FORENSICS CASE STUDY

THE SITUATION

As part of an investigation conducted by the Department of Justice (DOJ), Innovative Driven collected active and archived data from email accounts of more than 500 users over the course of eight months. Users consisted of both current and former employees, from various departments within the organization, and located throughout the United States. The data set was missing significant portions of or entire email accounts and had six-years of deleted data. If the missing data and email accounts from this gap could not be located and restored, the client would be left without an adequate response to the DOJ's investigation and could face possible fines and/or sanctions. Furthermore, the restoration process would need to be completed in timeframe that would not delay or negatively impact the entire investigation.

THE SOLUTION

The missing data was determined to be the result of a revision in the client's data retention policy. All data prior to this revision was stored on a previous Exchange Vault that was kept offline. ID concluded that in order to access the 6-years of missing data, the entire offline Exchange Vault would need to be restored. However, the support/maintenance licensing had been cancelled by the client in to reduce costs. ID had to completely rebuild and configure the Exchange Vault, made possible by the extensive experience the ID's forensic experts have with these tools.

THE RESULT

Six-years of missing data, email communication, and user accounts were effectively restored and rebuilt into a format that could be extracted for review. The Client averted any possibility of sanctions or incurring legal fines and penalties due to ID's successful restoration – all while **saving over \$200,000** when compared to the cost of technical support from the archiving application.



\$20k+

in cost savings working
with ID forensic experts



A COMPREHENSIVE SOLUTION FOR A SECOND REQUEST

A MANAGED REVIEW CASE STUDY

THE SITUATION

A Second Request was issued after review of a proposed merger between two major corporations in the entertainment industry. The project required a review and production of a large volume of data within 45 days. There were more than 60 custodians in multiple locations. Technology-assisted review (TAR) needed to be implemented in a defensible manner that would satisfy the government agency. ID would have a limited time for each phase in order to produce all relevant documents by the 45-day deadline.

THE SOLUTION

ID's forensic examiners spearheaded the collection process, which included over 9TB of complex data. The team de-duplicated, date filtered, and loaded the data in less than 3 weeks, including unusual file types.

ID's designed a defensible technology-assisted review (TAR) workflow that ultimately surpassed the recall rate approved by the government agency. Using subject matter experts (SMEs) to train the TAR algorithm, ID adapted the workflow to manage the volumes of rolling data and begin review before the entire data set was collected and processed. ID applied a broad privilege search term screen to the responsive universe to identify potentially privileged documents that were promoted to human review. The documents that did not go through human review were sampled prior to production to ensure privileged material was not being produced. This enabled ID to utilize the appropriate amount of resources to provide rolling productions of documents to the government agency, ultimately producing over 2.7 million documents.

THE RESULT

The client was able to meet the government agency's production deadline using ID's TAR workflow, which saved approximately \$2 million in attorney review costs.



\$2 million+

in cost savings using
technology-assisted review.



USING TAR IN A MULTI-LANGUAGE SECOND REQUEST

A MANAGED REVIEW CASE STUDY

THE SITUATION

A Second Request was issued after review of a proposed billion-dollar acquisition in the technology industry. In addition to the stringent time constraint, data resided in the United States and Europe, prompting various collection and processing requirements for international data. Furthermore, rigorous encryption software risked the loss of crucial metadata if processed incorrectly.

THE SOLUTION

ID's digital forensic experts handled the collection of data residing in the United States and guided the collection of international data from initial scope & identification through completion. ID then utilized its data centers in both the United States and Brussels, Belgium to process the data. ID's software engineers created custom solutions within FOCUS, ID's proprietary processing platform, to address unusual file types and encryption issues.

ID deployed two parallel managed review workflows: one for English documents, and another for foreign language documents. ID first performed language identification and prepared the documents for review. English documents in the responsive universe that did hit on the privilege screen were batched for first level review utilizing email threading. Non-English documents were email threaded and only inclusive emails were batched for reviewers fluent in the relevant languages. The email threading served to reduce the non-English review population by approximately 20%. To further increase efficiency, ID applied categorization to prioritize responsive documents to be sent for translation.

THE RESULT

The client was able to meet the government agency's production deadline, while saving over \$2 million dollars.



\$2 million+

in cost savings using
technology-assisted review.



USING ANALYTICS IN OPPOSING PARTY PRODUCTIONS

A MANAGED REVIEW CASE STUDY

THE SITUATION

The client received an opposing party production consisting of approximately 100,000 documents that needed to be reviewed in anticipation of upcoming depositions, and with a 14-day deadline. Innovative Driven consulted with the client to create a workflow integrating analytic tools to increase efficiency of the limited resources available – specifically, the subject matter experts (SMEs) handling the litigation.

THE SOLUTION

ID organized the utilizing the analytic clustering tool. This organizational method allowed the SMEs to quickly identify groups of documents that required further review and groups that were of less importance, and prioritize their review accordingly. As the SMEs reviewed and made decisions based on the relevance and content of those documents, ID utilized those decisions to categorize the remaining un-reviewed documents. This method allowed ID to identify additional relevant documents for review that may not have been caught by applying search terms.

THE RESULT

By applying clustering and categorization to this review universe, ID was able to significantly decrease the number of documents requiring review and as result, the total amount of time needed for review was significantly decreased. ID's integration of analytics into the workflow allowed the SMEs to prepare for upcoming depositions more thoroughly and prevented unanticipated documents from being brought forth – and ultimately saved the client over \$85,000.



40%

cost savings
using TAR vs.
linear review



TOO MANY DOCUMENTS, NOT ENOUGH TIME.

A MANAGED REVIEW CASE STUDY

THE SITUATION

An Innovative Driven client received over 87,000 documents, but had limited resources and time to review them. They needed to find the most important documents as quickly and as efficiently as possible.

THE SOLUTION

The ID team determined that leveraging the conceptual clustering features within Brainspace would produce the best results for the client. Conceptual clusters group like ideas within the document universe, making it easier to find relevance and sort by topic. Clusters require no user input to create and can be quickly navigated to identify interesting pockets of data.

After dividing the documents, a sample from each cluster would be reviewed to determine the level of priority for that set of documents.

Additionally, the coding applied during the sampling review would be used to train a predictive algorithm to identify additional key documents either using Relativity's continuous active learning application or Brainspace's CMML. The highly ranked documents would be batched out and used for review and further training.

THE RESULT

The use of industry-leading tools like Brainspace and Relativity reduced the number of documents requiring review to 738, less than 1% of the original. ID is committed to using best-of-breed technology to ensure our clients are provided with the optimal results.



.009%

Clustering reduced the number of documents requiring review to less than 1% of the original data set.



CUSTOMIZED WORKFLOWS. QUALITY RESULTS.

A MANAGED REVIEW CASE STUDY

THE SITUATION

A law firm client needed to identify key documents in a large document universe as quickly as possible to prepare for depositions. Additionally, the resulting key documents needed to be categorized into the appropriate matter category..

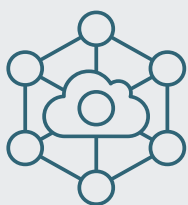
THE SOLUTION

The ID team determined that a modified predictive coding workflow that included stratified sampling would train the algorithm more quickly and produce the best results.

First, search terms were identified and applied to identify the key documents in the set. Once key documents were identified, the team used Brainspace's Diverse Active Learning algorithm to further classify the results, rank their priority, and assign them to the appropriate matter category.

THE RESULT

As a result of the customized workflow, the client received key documents they needed for their deposition, categorized in a manner that set them up for success. In fact, the algorithm and workflows were so successful, the client was provided with documents they did not anticipate finding or even knew existed. The ID team's customized solution produced high quality of results and saved the client time, money, and headaches.



STRATIFIED SAMPLING

a method that involves the division of a group into smaller subgroups known as strata.

BEATING THE DEADLINE

A COLLECTION, PROCESSING, AND REVIEW CASE STUDY

THE SITUATION

A large corporation was sued for alleged breach of contract and tortious interference and needed to review and produce a large volume of data in less than two months. The client needed help collecting data from more than 60 custodians in multiple locations.

THE SOLUTION

ID's forensic experts began collecting over 8TB of complex data. Bearing in mind the time constraints, ID implemented a separate processing environment, allowing the data to be de-duplicated, date filtered, then loaded into Relativity in less than three weeks. Furthermore, ID's programming team incorporated new features into the platform to streamline the processing of unusual file types.

ID's managed review team collaborated with the client to design and implement a defensible technology-assisted review workflow to manage the volumes of rolling data. ID applied a broad privilege search term screen to identify potentially privileged documents, which were promoted to human review. The documents that did not go through human review were statistically sampled prior to production to ensure the privilege screen was comprehensive.

THE RESULT

ID was able to collect the data, including non-tradition file types, before the given deadline. Through the use of analytics, the data universe was culled down for review, saving the client time and money. By utilizing ID's workflow, the client met production obligations ahead of schedule and saved over \$1 million in review costs.



15,292

hours saved in responsiveness and privilege review using TAR



724,012

fewer documents reviewed using TAR versus linear review.



\$1 million+

saved by utilizing ID's experts and TAR



IDENTIFYING PII WHILE MAINTAINING SECURITY

A DIGITAL FORENSICS & MANAGED REVIEW CASE STUDY

THE SITUATION

The client, a prominent distributor in the food & beverage industry, needed help with an internal investigation of a terminated employee's laptop that contained personally identifiable information (PII). In order to provide a full disclosure to the court, the client needed to analyze the laptop and identify the extent of the PII that was potentially released. Because there was no access to original laptop, the client provided ID an encrypted backup copy on a hard drive.

THE SOLUTION

Using the backup copy, ID's digital forensics team assessed the data and expanded the investigation to include pattern searches of social security numbers, bank routing numbers, and credit card numbers. Within 48 hours of receiving the backup, imaging and pattern searching was completed and all data responsive to the searches was loaded into a Relativity workspace for review.

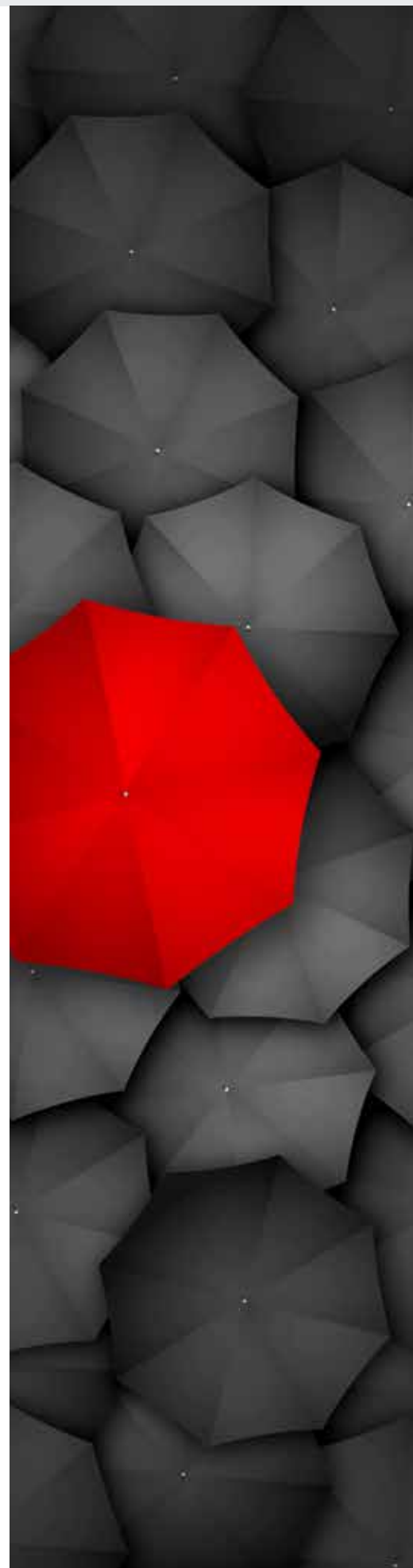
Once the data was transitioned to the managed review team, ID assembled a team of reviewers with experience specific to identifying various types of PII. The review team identified the customer name, type of PII, and contact information. Each reviewer's coding decisions were subject to a thorough quality control process and the final results were exported into a comprehensive report for the client.

THE RESULT

The managed review was completed in ten days and the entire process, from receipt of laptop data to delivery of final PII report, was completed in under two weeks. ID's ability to provide end-to-end services in-house significantly reduced the risk of exposure. The client met their court-mandated deadline, avoiding data breach liability and further exposure to the company and their customers.

Common Examples of PII

 Social Security Number	 Passport Number	 Patient ID Number
 Credit Card Number	 Driver's License Number	 Internet Protocol Address



IDENTIFYING TRADE SECRETS

A MANAGED REVIEW CASE STUDY

THE SITUATION

A developer of pharmaceutical products contacted Innovative Driven to help identify potential trade secret information on a former employee's laptop in order to remediate the proprietary information.

THE SOLUTION

ID consulted on and implemented an analytics-based process that would significantly reduce the number of documents needing review. This workflow was comprised of three complimentary parts and allowed the client to be in the driver's seat. First, ID created conceptual clusters (organizing data by concept rather than keyword without requiring any user input) of the data on the laptop and provided a list of those clusters to the client for review. The client was thereby able to quickly identify categories of documents that were largely proprietary or personal in nature and designate them for the corresponding treatment.

Some clusters appeared to contain both the client's and the employee's information, so for any cluster that was not easily classified, ID provided the client with a list of document file names to allow for quick classification of proprietary information.

Finally, ID provided an experienced contract attorney reviewer for any remaining documents that the client was not able to quickly classify.

THE RESULT

ID had the list of clusters ready for the client's within one day after receiving the laptop. This cluster review approach allowed the client to address 32k of the 40k documents on the laptop in a matter of hours. The client was then able to address 5.6k of the remaining 6k documents within a day via the file name list, and the ID-provided reviewer completed review of the final 400 documents the following day. ID's forensic team then performed the remediation of the identified proprietary information the following day, completing the entire process in five days and requiring actual review of only a small fraction of the documents themselves.



<1 day

turnaround time to produce clusters for client review



<5 days

turnaround time for entire process, start to finish.

USING ANALYTICS IN OPPOSING PARTY PRODUCTIONS

A MANAGED REVIEW CASE STUDY

THE SITUATION

The client received an opposing party production consisting of approximately 100,000 documents that needed to be reviewed in anticipation of upcoming depositions, and with a 14-day deadline. Innovative Driven consulted with the client to create a workflow integrating analytic tools that increased the efficiency of the limited resources available – specifically, the subject matter experts (SMEs) handling the litigation.

THE SOLUTION

First, ID organized the documents by utilizing the analytic clustering tool, which does not require any user input. This organizational method allowed the SMEs to quickly identify groups of documents that required further review and groups that were of less importance, and prioritize their review accordingly. As the SMEs reviewed and made decisions based on the relevance and content of those documents, ID utilized those decisions to categorize the remaining un-reviewed documents. This method allowed ID to identify additional relevant documents for review that may not have been caught by applying search terms.

THE RESULT

By applying clustering and categorization to this review universe, ID was able to significantly decrease the number of documents requiring review and as result, the total amount of time needed for review was significantly decreased. ID's integration of analytics into the workflow allowed the SMEs to prepare for upcoming depositions more thoroughly and prevented unanticipated documents from being brought forth – and ultimately saved the client over \$85,000.



40%

cost savings
using TAR vs.
linear review



VIEWING ENCRYPTED FILES

A MANAGED REVIEW CASE STUDY

THE SITUATION

One of ID's healthcare clients utilizes an enterprise level security solution to encrypt any sensitive information transmitted via email. Current versions of the security solution contain a utility tool that enables mass decryption and export of emails and their attachments. The client, however, had not yet upgraded their version of the security solution and therefore, the mass decryption utility tool was not available. This left ID with nearly 40,000 encrypted emails designed to forestall circumvention and seemingly no adequate solution to review these records before the discovery deadline.

THE SOLUTION

There were two ways of viewing the encrypted files – either through an Outlook plugin or a web browser. After extensive conversations with developers of the security solution and the client's IT team, the Outlook plugin was determined to be a dead-end. Moreover, security restrictions imposed by the enterprise level security solution also prevented manual download and decryption of the encrypted emails. With both automated and manual decryption through the Outlook plugin seemingly nonviable solutions, ID turned to the web browser. Initially, we were able to parse the HTML attachments that contained links to the cloud decryption tool and isolate these links. However, each HTML link would authenticate with the cloud decryption tool and generate a final destination URL for the decrypted emails – making it impossible to streamline and target any specific URLs.

ID revisited the Outlook plugin to test for any additional avenue for review outside of the developer's process and discovered that the tool allowed for limited export of MHT files. Consequently, our in-house development team created a custom script to recurse through the authenticated posts and automatically download the MHT files. We were also able to force download attachments and metadata, ensuring a complete collection of the email data.

THE RESULT

ID's custom developed solution allowed for mass decryption and export, comprehensive processing, review and production of nearly 40,000 emails that would have otherwise been unsearchable and unreviewable.



40,000

emails that would have otherwise been unsearchable & unreviewable



TOO MANY DOCUMENTS, NOT ENOUGH TIME.

A MANAGED REVIEW CASE STUDY

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THE SOLUTION

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After dividing the documents, a sample from each cluster would be reviewed to determine the level of priority for that set of documents.

Additionally, the coding applied during the sampling review would be used to train a predictive algorithm to identify additional key documents either using Relativity's continuous active learning application or Brainspace's CMML. The highly ranked documents would be batched out and used for review and further training.

THE RESULT

The use of industry-leading tools like Brainspace and Relativity reduced the number of documents requiring review to 738, less than 1% of the original. ID is committed to using best-of-breed technology to ensure our clients are provided with the optimal results.



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CUSTOMIZED WORKFLOWS. QUALITY RESULTS.

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THE SITUATION

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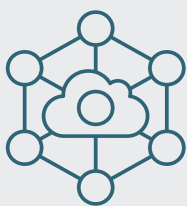
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STRATIFIED SAMPLING

a method that involves the division of a group into smaller subgroups known as strata.



A COMPREHENSIVE SOLUTION FOR A SECOND REQUEST

A MANAGED REVIEW CASE STUDY

THE SITUATION

A Second Request was issued after review of a proposed merger between two major corporations in the entertainment industry. The project required a review and production of a large volume of data, with over 60 custodians in multiple locations, and within 45 days. Technology-assisted review (TAR) needed to be implemented in a defensible manner that would satisfy the government agency

THE SOLUTION

ID's forensic examiners spearheaded the collection process, which included over 9TB of complex data. The team de-duplicated, date filtered, and loaded the data in less than three weeks, including unusual file types.

ID's designed a defensible technology-assisted review (TAR) workflow that ultimately surpassed the recall rate approved by the government agency. Using subject matter experts (SMEs) to train the TAR algorithm, ID adapted the workflow to manage the volumes of rolling data and begin review before the entire data set was collected and processed. ID applied a broad privilege search term screen to the responsive universe to identify potentially privileged documents that were promoted to human review. The documents that did not go through human review were sampled prior to production to ensure privileged material was not being produced. This enabled ID to utilize the appropriate amount of resources to provide rolling productions of documents to the government agency, ultimately producing over 2.7 million documents.

THE RESULT

The client was able to meet the government agency's production deadline using ID's TAR workflow, which saved approximately \$2 million in attorney review costs.



29,000

hours saved in review using TAR



1.5M

fewer documents reviewed using TAR versus linear review.



\$2 million+

saved by utilizing ID's experts and TAR

A DEFENSIBLE ON-SITE COLLECTION

A DIGITAL FORENSICS CASE STUDY

THE SITUATION

The client, a multi-billion dollar construction & manufacturing company, needed to defensibly collect and preserve data from 25 custodians across multiple locations and an unknown number of varying types of mobile devices.

THE SOLUTION

ID traveled to the client headquarters for one week, coordinated with each custodian, and collected over 50 different devices. ID consulted with the client on multiple solutions and demonstrated each tool's strengths, challenges, and overall capabilities.

We provided a comprehensive report for each device collected and used these results to present the different software solutions in a manner that would be most similar to how the client would use these in the future. As a result, the client had a better understanding of investigative software and was confident moving forward with self-collections in the future. By completing the forensic collection with the client on-site, ID was able to demonstrate the entire process across multiple types of devices and operating systems.

THE RESULT

ID was able to successfully complete the mobile device collection, educate the client on forensic software solutions, and enable the client to confidently complete a defensible self-collection in the future. The client continues to partner and consult with ID for complex forensic matters.



50+

different
devices
collected



EMAIL ARCHIVING FOR A GOVERNMENT INVESTIGATION

A DIGITAL FORENSICS CASE STUDY

THE SITUATION

As part of an investigation conducted by the Department of Justice (DOJ), Innovative Driven collected active and archived data from email accounts of more than 500 users over the course of eight months. Users consisted of both current and former employees, from various departments within the organization, and located throughout the United States. The data set was missing significant portions of or entire email accounts and had six-years of deleted data. If the missing data and email accounts from this gap could not be located and restored, the client would be left without an adequate response to the DOJ's investigation and could face possible fines and/or sanctions. Furthermore, the restoration process would need to be completed in timeframe that would not delay or negatively impact the entire investigation.

THE SOLUTION

The missing data was determined to be the result of a revision in the client's data retention policy. All data prior to this revision was stored on a previous Exchange Vault that was kept offline. ID concluded that in order to access the 6-years of missing data, the entire offline Exchange Vault would need to be restored. However, the support/maintenance licensing had been cancelled by the client in order to reduce costs. ID had to completely rebuild and configure the Exchange Vault, made possible by the extensive experience the ID's forensic experts have with these tools.

THE RESULT

Six-years of missing data, email communication, and user accounts were effectively restored and rebuilt into a format that could be extracted for review. The client averted any possibility of sanctions or incurring legal fines and penalties due to ID's successful restoration – all while **saving over \$200,000** when compared to the cost of technical support from the archiving application.



\$200k+

in cost savings working with ID forensic experts



SAVING TIME WITH ANALYTICS

A MANAGED REVIEW CASE STUDY

THE SITUATION

A corporate client needed a review completed of an internal investigation in five business days. Due to the sensitive nature of the investigation, a single in-house subject matter expert (SME) was assigned to assess whether there was an issue warranting further action.

THE SOLUTION

A random sample of documents reviewed by the SME. Based on this review, five percent of the potential review universe was estimated to be relevant.

ID used applied email threading to the potential review universe. As part of the email threading process, we identified the emails containing unique content and must be reviewed. ID then used clustering to organize these emails into conceptually similar groups of documents. The SME started the review by sampling a cluster. If the sampled documents in the cluster were relevant, then the SME reviewed all the emails in that cluster.

The SME coded the documents with one of the following tags: wholly relevant, wholly non-relevant, or mix of relevant and non-relevant. The coding was propagated to the entire email thread.

A random sample was drawn from the clusters that were sampled by the SMEs and tagged as non-relevant and re-reviewed. There were no relevant documents identified in the sample.

THE RESULT

ID's expert reviewed only 815 documents and the review was completed in three days, saving the client a total of \$31,505.00. Eleven percent of the documents were tagged as wholly relevant or a mix of relevant and non-relevant.



3 days

to complete review



4,185

fewer documents reviewed using TAR versus linear review.



\$30K +

saved by utilizing ID's experts and TAR

STREAMLINING A THOROUGH REVIEW

A MANAGED REVIEW CASE STUDY

THE SITUATION

The client, a multi-million dollar investment firm, needed help preparing their response to a third party subpoena for documents relevant to an ongoing lawsuit, and wanted to be confident that their response would not include unrelated sensitive information. The entire review universe would need to be reviewed to ensure all documents were appropriately withheld or redacted.

THE SOLUTION

As the review universe for this matter was relatively small, under 4,000 documents, and each document required review, ID deployed specific analytic tools to organize the data.

Email threading allowed for chronological review of an entire email conversation at once, allowing a reviewer to identify relevant and non-relevant information throughout a thread, ensuring privileged or confidential information is not included in the client's final response.

Clustering increased the consistency during review by conceptually grouping similar documents so they are reviewed by a single reviewer, rather than piece-meal by multiple reviewers.

THE RESULT

By utilizing email threading and clustering as organizational methods in this review universe, ID was able to complete this review in a shorter amount of time without sacrificing the quality of the results.

ID's application of analytics and use of legal reviewers saved the client over \$17,000 when compared to a linear review performed by outside counsel.



\$17k

in cost savings using technology-assisted review.



USING TAR IN A MULTI-LANGUAGE SECOND REQUEST

A MANAGED REVIEW CASE STUDY

THE SITUATION

A Second Request was issued after review of a proposed billion-dollar acquisition in the technology industry. In addition to the stringent time constraint, data resided in the United States and Europe, prompting various collection and processing requirements for international data. Furthermore, lack of a foreign language SME provided by the client prevented ID from deploying a TAR workflow for foreign language documents.

THE SOLUTION

ID handled the collection of data residing in the United States and guided the collection of international data from initial scope and identification through completion. ID utilized its data centers in both the United States and Brussels, Belgium to process the data. ID's software engineers created custom solutions within ID's extensible and customizable processing platform to address unusual file types and encryption issues.

ID deployed two parallel managed review workflows: one for English documents, and another for foreign language documents. ID performed language identification and prepared the documents for review. English documents that did hit on the privilege screen were batched for first level review using email threading. Non-English documents were email threaded and only inclusive emails were batched for reviewers fluent in the relevant languages. The email threading served to reduce the non-English review population by approximately 20%. To further increase efficiency, ID applied categorization to prioritize responsive documents.

THE RESULT

By performing the foreign language review in concert with the English document review and leveraging analytic tools, such as email threading and categorization, to further increase efficiency, the client was able to meet the government agency's production deadline, while saving over \$2 million dollars.



\$2 million+

in cost savings using
technology-assisted review.

