bsi.

International Cyber Resilience Exchange 2019

Which of Your e-Discovery Workflows are Primed for Change?

26 March 2019

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Clare Longworth

Solutions Specialist

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e-Discovery

e-Discovery 101

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A Definition

Electronic discovery (also e-discovery or ediscovery) refers to discovery in legal proceedings such as litigation, government investigations, or Freedom of Information Act requests, where the information sought is in electronic format (often referred to as electronically stored information or ESI). Electronic discovery is subject to rules of civil procedure and agreed-upon processes, often involving review for privilege and relevance before data are turned over to the requesting party.

(Source: Wikipedia)

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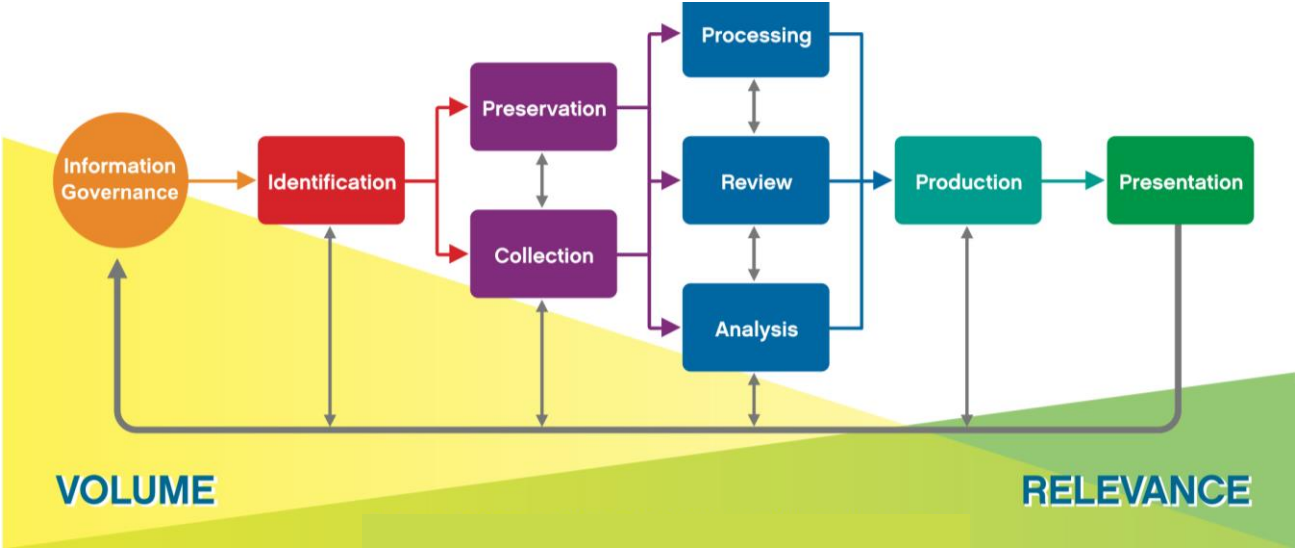
EDRM



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Relativity

Once upon a time on an old green couch...

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THE COUCH.
We built our business on this couch.
We bought it for twenty-five bucks at a garage sale so we would have something comfortable to sit on. It has been a bed, a break room, a waiting room, a think tank, and even an intern's desk. The couch was also in many of our early conference rooms and has participated in hundreds—if not thousands—of meetings, all-nighters, strategy sessions, and late night deployment parties. It is as steeped in Relativity history as any person.
Our business models have changed, the desks have been replaced, and the computers have been upgraded, but the couch is still here.
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Data

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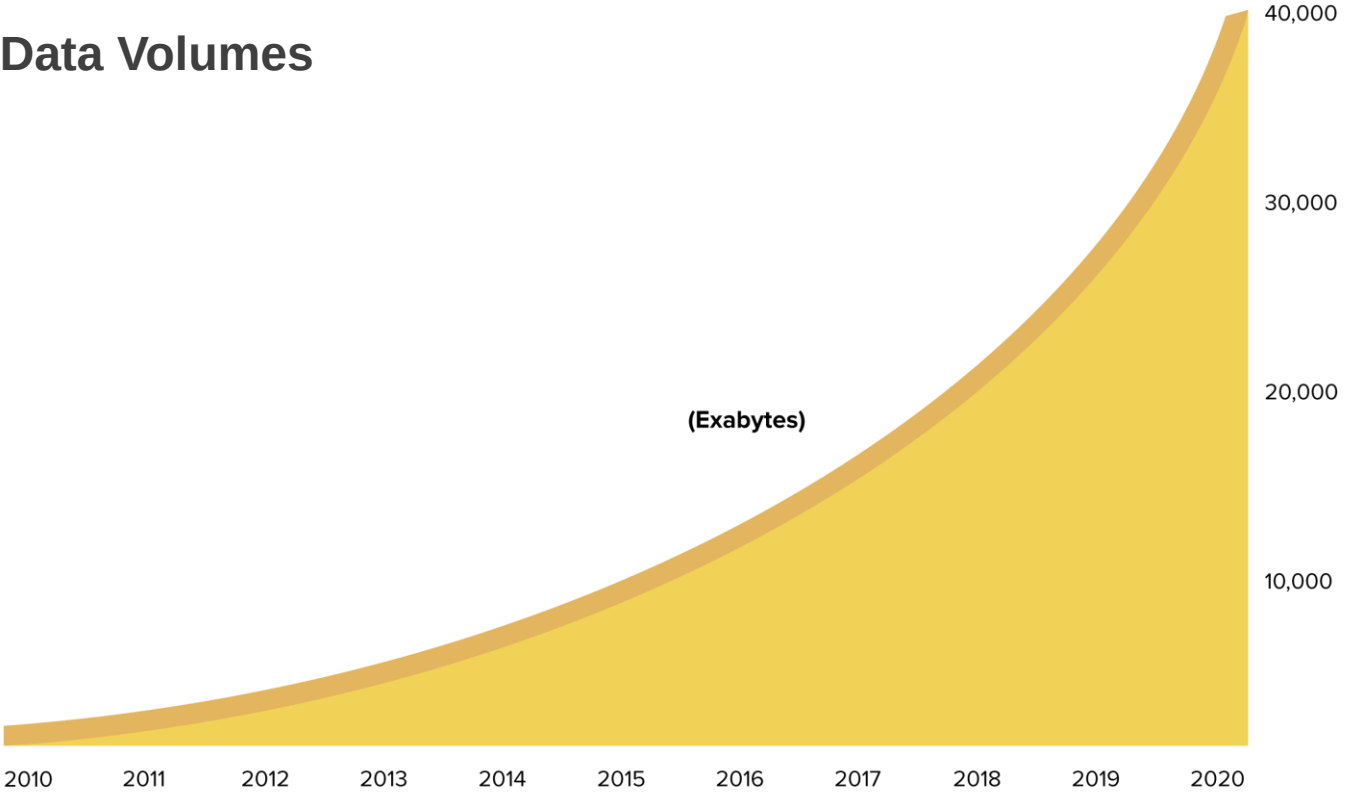
Big Data Volumes



Data Types

- Real world data
  - Collected hard-copy material
  - Search and seizures

- ‘Traditional’ electronic data
  - Servers
  - Desktop machines
  - Laptops
  - Portable devices

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Data Types

- Cloud data and beyond
  - SharePoint
  - Online email services
  - Messaging services
  - Transient data
- Internet of Things
  - Google Home, Amazon Alexa
  - Smart devices
  - Wearable technologies
- Internet of ‘Bodies’
  - Microchips
  - Pace makers, Insulin pumps
- Blockchain

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Early Case Assessment

ECA and Investigation

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Early Case Assessment and Investigation

- Early Case Assessment
  - Quickly analyze and synthesize evidence from multiple sources to cull your data, assess the overarching facts, and determine case strategy.
- Investigation
  - Conduct swift and powerful digital investigations using a forensically sound process. Explore your data, collaborate, and act on what you find.
- Benefits of using ECA & Investigation
  - Leverage analytics at any point.
  - Flexible approaches to your work.
  - Easily move your data within Relativity.
  - Reuse your work product.

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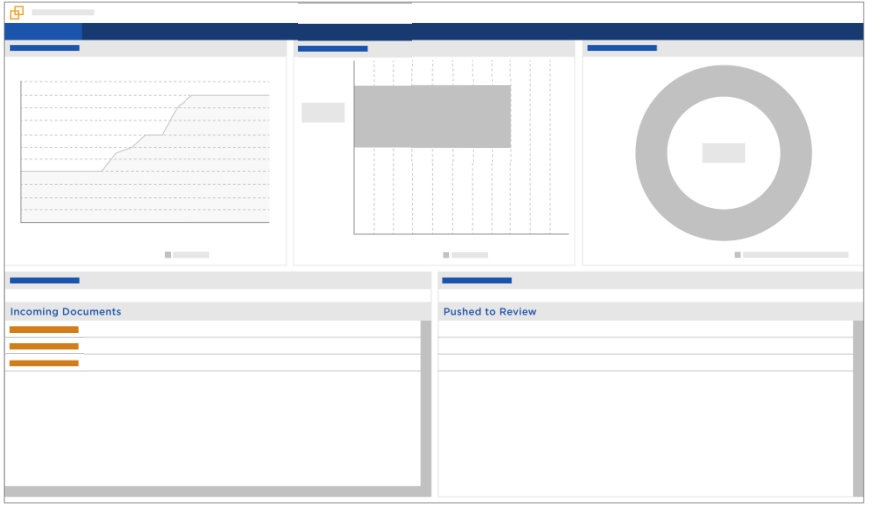
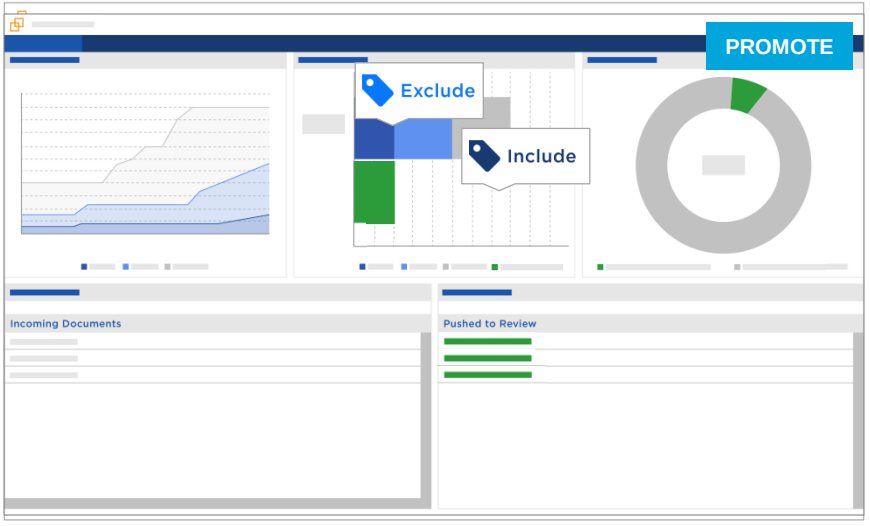

Incoming Documents
Pushed to Review



Review Workspace A

DOC

Review Workspace B

DOC

Load File

DOC

Adventures in Analytics

Structured, Conceptual, and Active Learning

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Structured Analytics

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Structured Analytics

- Based on structural analysis of the text according to defined properties
  - Email Threading
  - Language Identification
  - Name Normalisation
  - Text Near Duplicate Identification
- Benefits of Structured Analytics
  - Organize documents for more consistency and efficiency
  - QC on like documents with dissimilar coding
  - Reduce document populations through analytics

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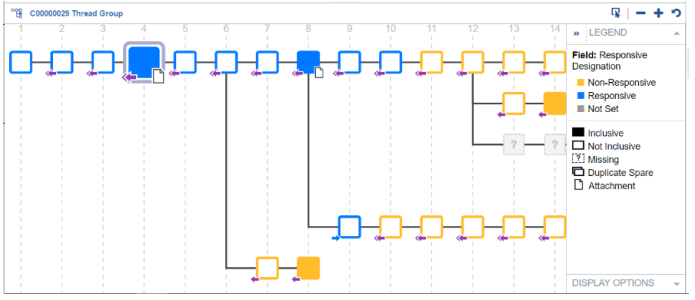
Email Thread Visualization

- Understand the “story” of an email thread
- Easily navigate to other emails in the thread
- View coding highlights to visually identify coding decisions
- Make faster, more consistent coding decisions
- Easily identify missing emails
- Visually QC coding decisions



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Language Identification

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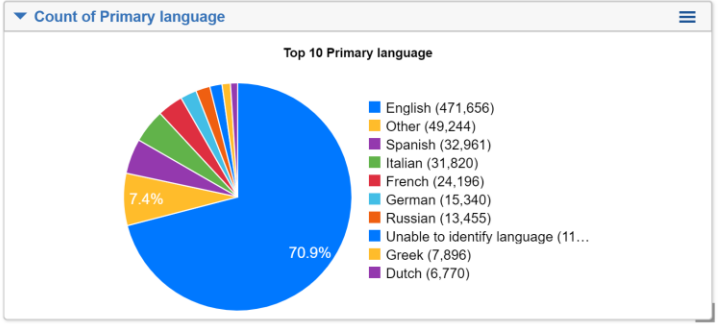

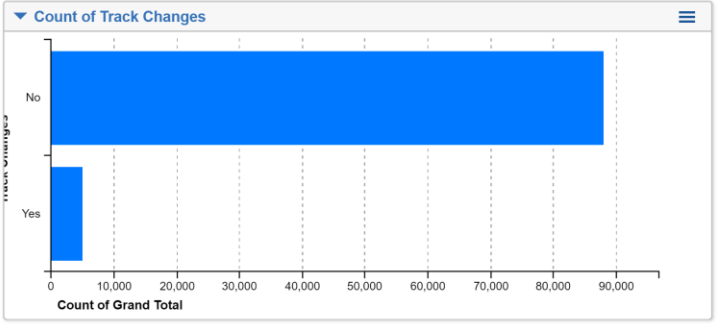

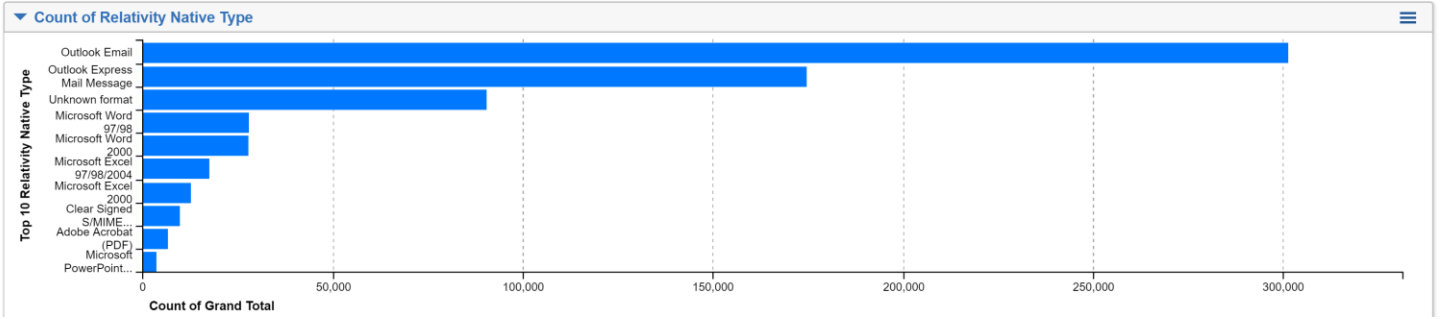

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Name Normalisation

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Entity | From | To | CC | BCC | Recipient | Participant

Items 1 - 1 (of 1)

	Full Name	Artifact ID	Classification	Aliases	Aliases::Domain
	(All)	(All)	Select...	(All)	(All)
Edit	Allen, Phillip	1061125	Communicator; Custodian	"Allen, Phillip K." <Phillip.K.Allen@ENRON.com>	ENRON.com
				"'Pallen@Enron.com'" <Pallen@Enron.com>	Enron.com
				"Phillip Allen" <pallen@enron.com>	enron.com
				"phillip allen" <pallen70@hotmail.com>	hotmail.com
				"Phillip K Allen" <Phillip.K.Allen@enron.com>	enron.com
				"phillip.k.allen@enron.com" <phillip.k.allen@enron.c	enron.com
				"'Phillip.K.Allen@enron.com'" <Phillip.K.Allen@enro	enron.com
				/O=ENRON/OU=NA/CN=RECIPIENTS/CN=Pallen	[Internal] - ENRON
				[pallen@enron.com]	enron.com
				[Phillip.K.Allen@enron.com]	enron.com

Entity | From | To | CC | BCC | Recipient | Participant

Items 1 - 10 (of 935)

	Control Number	Entity From	Entity To	Entity CC	Entity BCC	Entity Recipient	Entity Particip...	Alias From	Alias To	Alias CC	Alias BCC	Alias Recipient	Alias Participant
	(All)	(All)	Select...	Select...	Select...	Select...	Select...	Select...	Select...	Select...	Select...	Select...	Select...
Edit	ERN0000001386	Allen, Phillip	Ermis, Frank Holst, Keith (1) Mike, Grigsby			Ermis, Frank Holst, Keith (1) Mike, Grigsby	Allen, Phillip Ermis, Frank Holst, Keith (1) Mike, Grigsby Phillip K Allen/HOU	Phillip K Allen	Frank Ermis [Frank Keith Holst [Keith H Mike Grigsby [Mike			Frank Ermis [Frank Keith Holst [Keith H Mike Grigsby [Mike	Frank Ermis [Frank Keith Holst [Keith H Mike Grigsby [Mike Phillip K Allen Phillip K Allen/HOU
Edit	ERN0000001387	Allen, Phillip	SMITH, JEFF			SMITH, JEFF	Allen, Phillip SMITH, JEFF	Phillip K Allen	Jeff Smith [jsmith@			Jeff Smith [jsmith@	Jeff Smith [jsmith@ Phillip K Allen
Edit	ERN0000001388	Allen, Phillip	SMITH, JEFF			SMITH, JEFF	Allen, Phillip SMITH, JEFF	Phillip K Allen	jsmith [jsmith@aus			jsmith [jsmith@aus	jsmith [jsmith@aus Phillip K Allen
Edit	ERN0000001389	Allen, Phillip	Buckley, Karen (1)			Buckley, Karen (1)	Allen, Phillip Buckley, Karen (1)	Phillip K Allen	Karen Buckley [Kar			Karen Buckley [Kar	Karen Buckley [Kar Phillip K Allen

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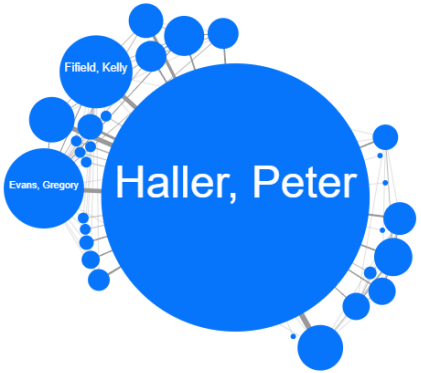
Communication Analysis

Relativity

Communication Analysis



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Analytics is all around you!

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Conceptual Analytics

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Conceptual Analytics

- Conceptual Analytics is a mathematical approach (LSI) used to index documents.
- Matches between documents are determined based on the words in the given document set.
  - No outside word lists needed (dictionaries, thesauri, etc.)
  - Language-agnostic
  - Relies on term co-occurrence, not term location
- Conceptual Analytic options
  - Keyword Expansion
  - Concept Search
  - Find Similar Documents
  - Clustering

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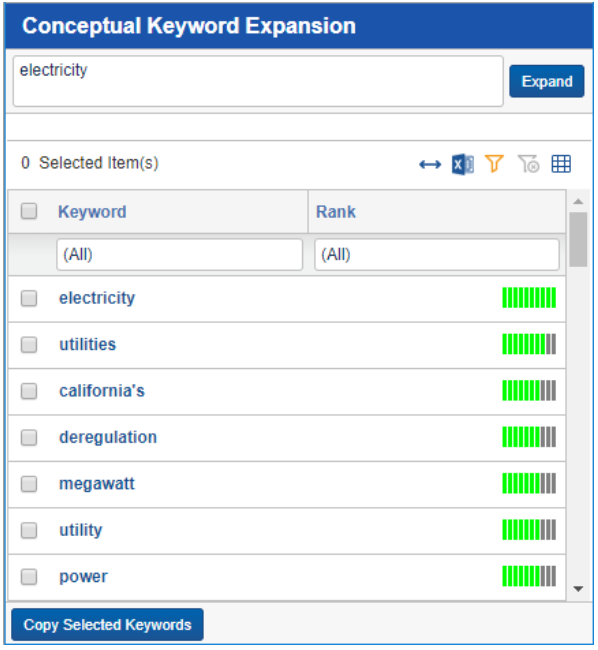
Keyword Expansion

- A searching method that finds how different language is used to express identical or conceptually similar concepts and terms in an index.
  - Investigate a large unknown dataset.
  - Find key search terms for a case.
  - Uncover unknown information based on information already known to be relevant.



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Finding Similar Documents/Concept Search

- Searches using a sentence, paragraph, or entire document.
- Returns documents related to the concept of the query.
  - Find documents even if terms differ.
  - Searching for documents based on ideas instead of absolutes.
  - More natural querying.

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Value of concept search

- Avoids term mismatch issues
  - Pop vs. soda
  - Football vs. soccer
- Avoids intentionally confusing use of language
  - Code words
- Finds documents even if exact language differs
  - Misspellings
  - Synonyms

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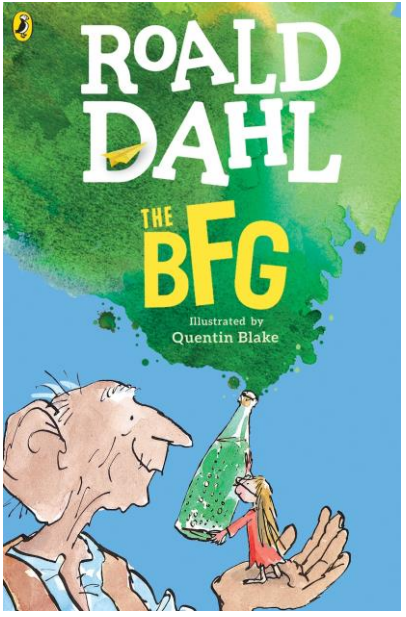
Concept Searching

- There are giants in the book.
- A child is stolen.
- It happens in England and they meet the Queen.
- There is something to do with dreams.
- Author is famous for writing children's books



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Clustering

- Use the power of the conceptual index to identify groups of conceptually related documents.
  - Investigate a large unknown dataset.
  - Deprioritize non-relevant documents quickly.
  - Speed up a linear review by batching conceptually related documents together.

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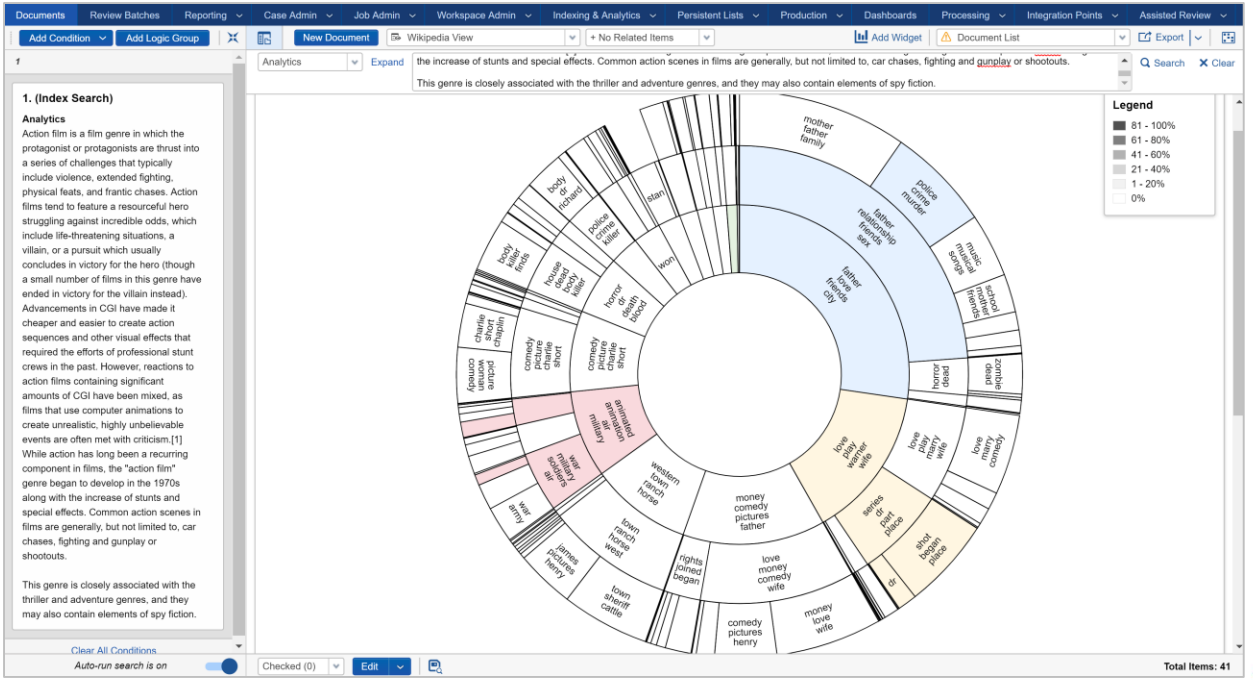
Clustering in Action



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Active Learning

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High-Level Active Learning Process

- As reviewers code documents via Active Learning, the system learns what sort of documents are likely to be responsive.
- The system then serves those documents likely to be responsive to reviewers.
- Decisions made on those documents are used to refine the model, and serve up better and better documents.
- This significantly accelerates the review process, as reviewers are shown the most potentially relevant documents first, while irrelevant documents are suppressed from review.

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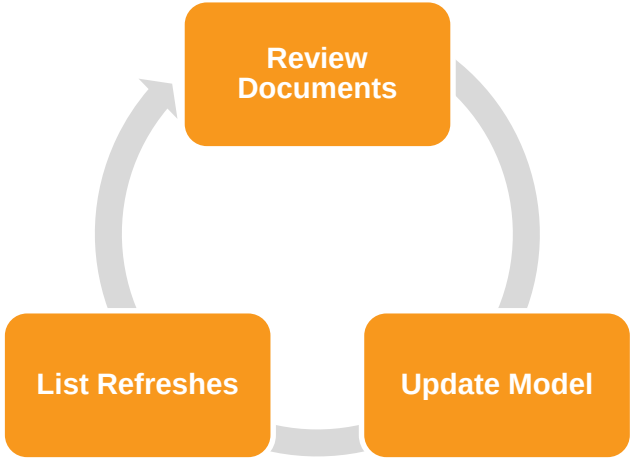
Prioritized Review Queue Workflow

- Create a local list of the most relevant documents
  - Index health
  - No previously reviewed documents
  - No duplicates
- Reviewers code and submit documents.
- Model updates and the list is refreshed.



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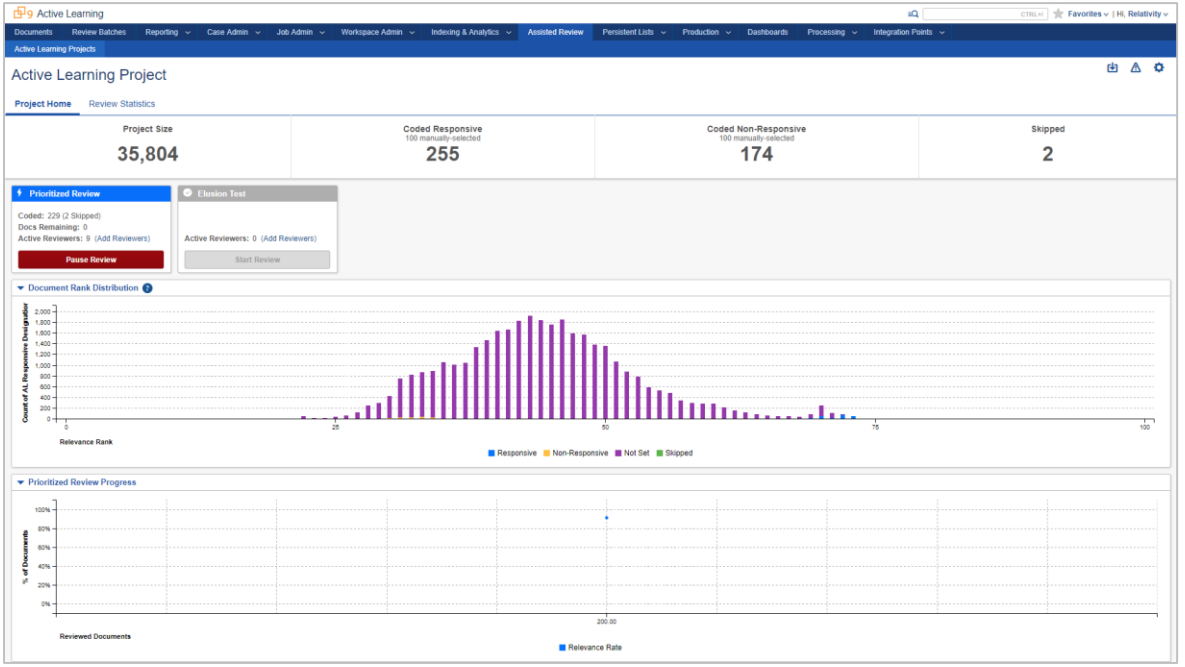
Monitoring with the Document Rank Distribution Chart



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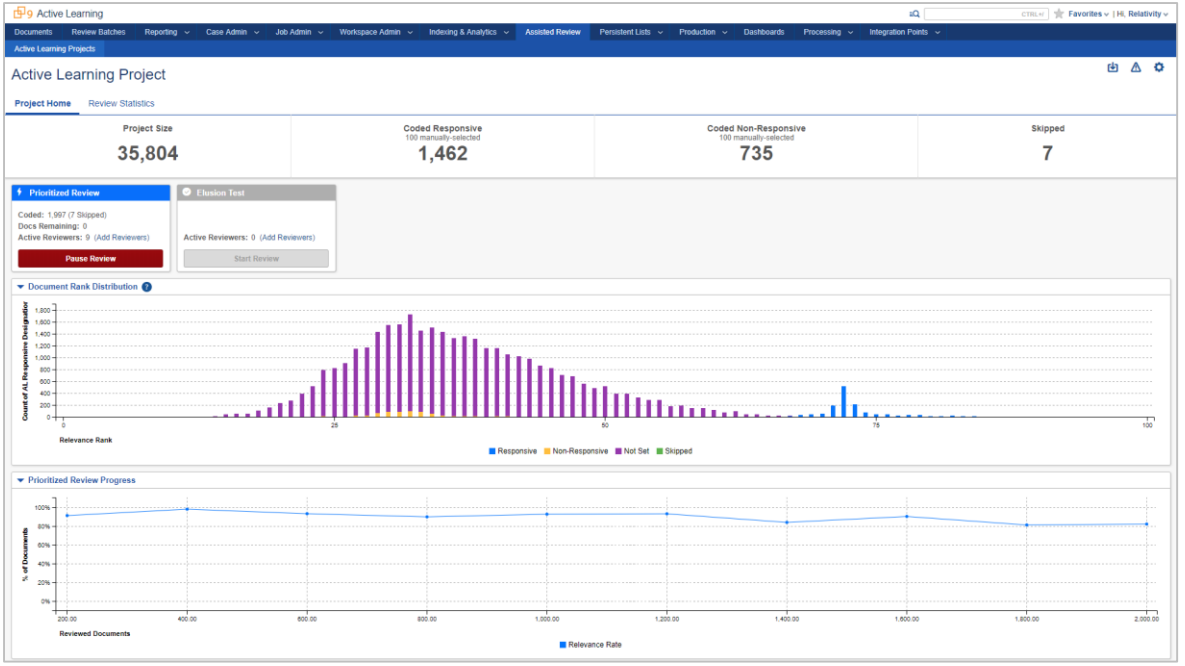
Monitoring with the Document Rank Distribution Chart



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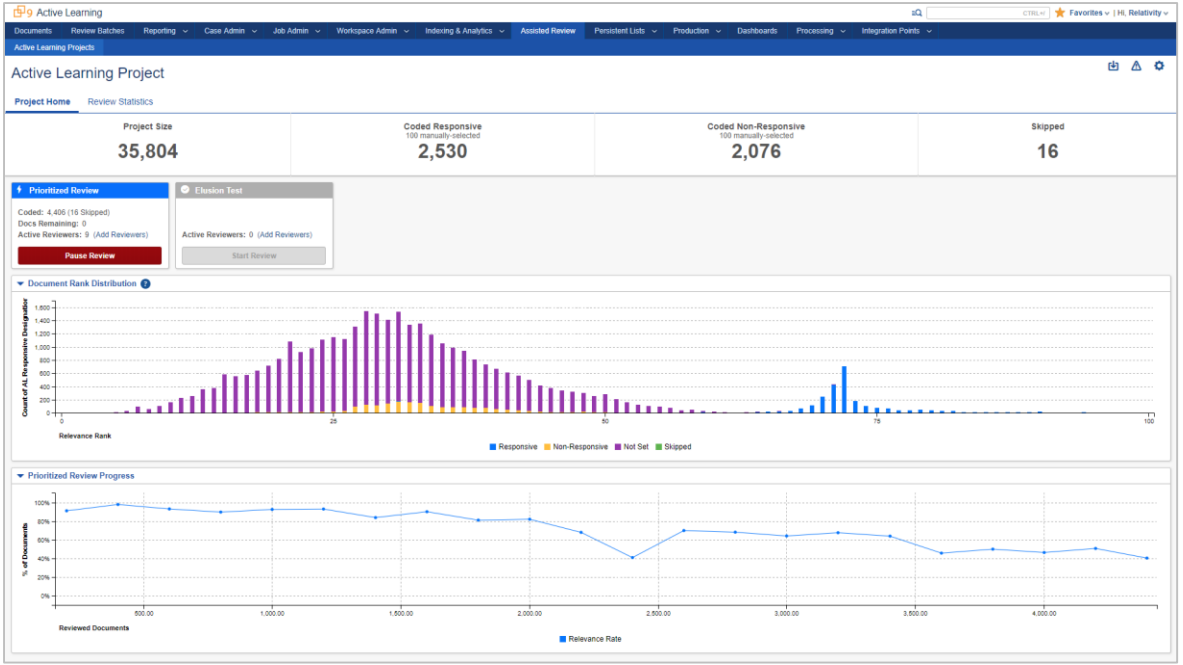
Monitoring with the Document Rank Distribution Chart



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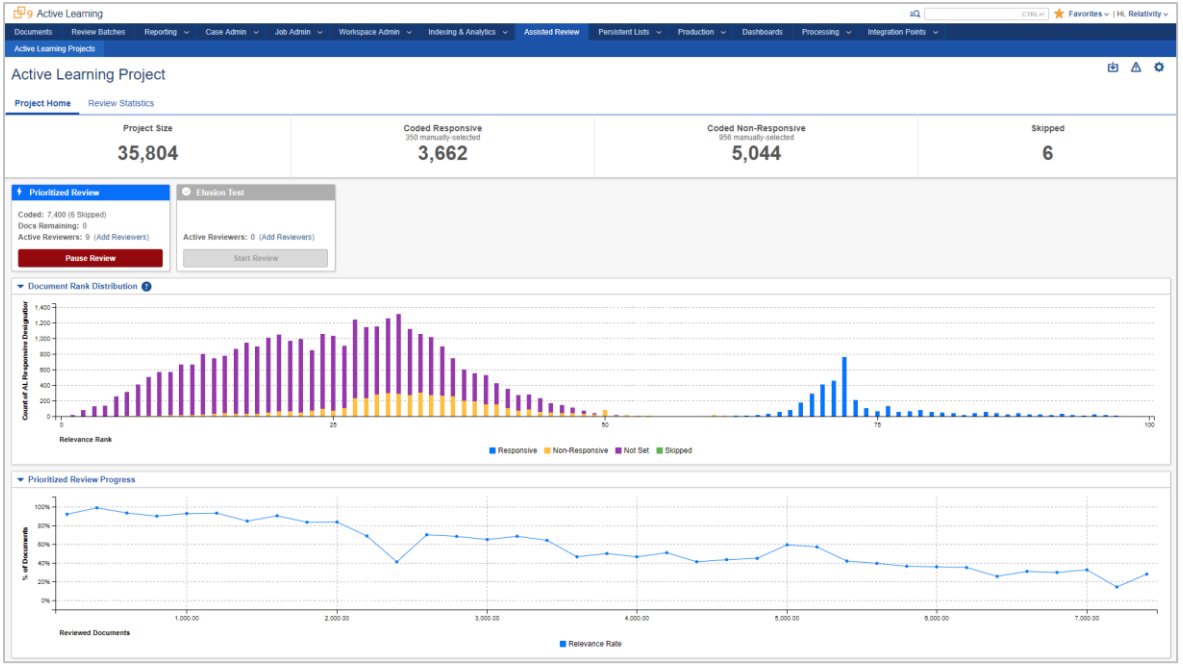
Monitoring with the Document Rank Distribution Chart



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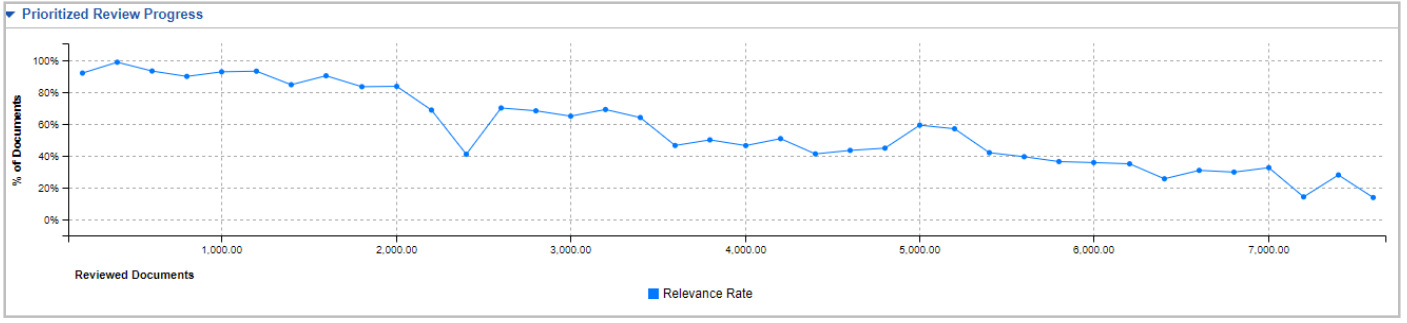
Monitoring with the Prioritized Review Progress Chart



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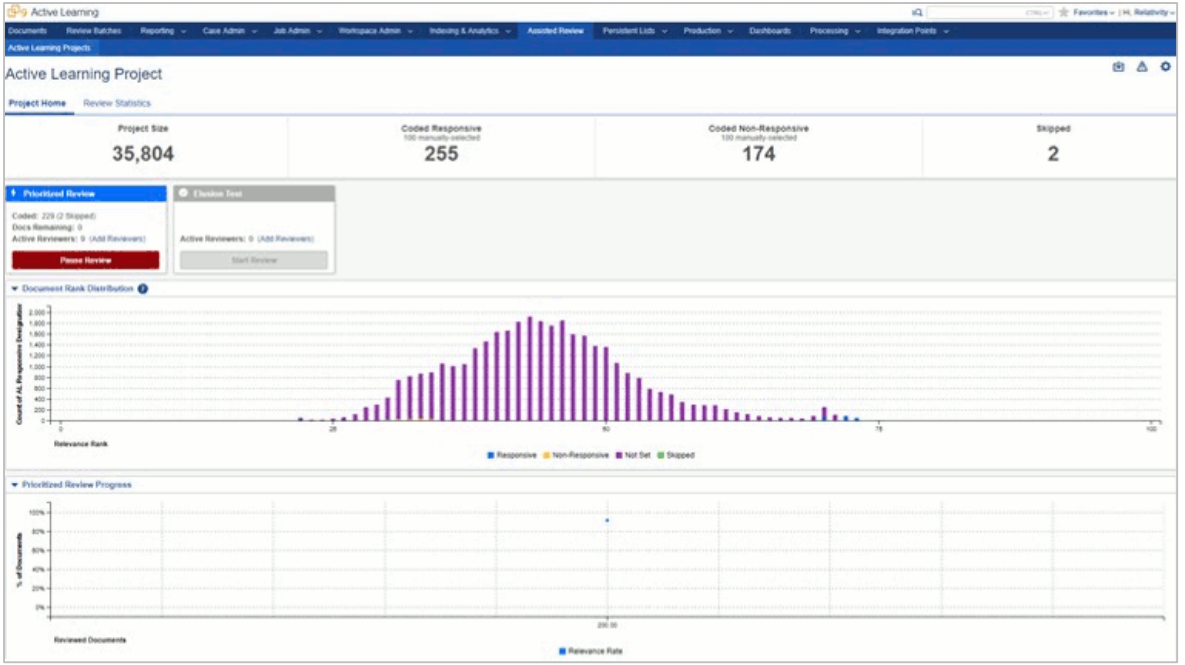
Project Timeline



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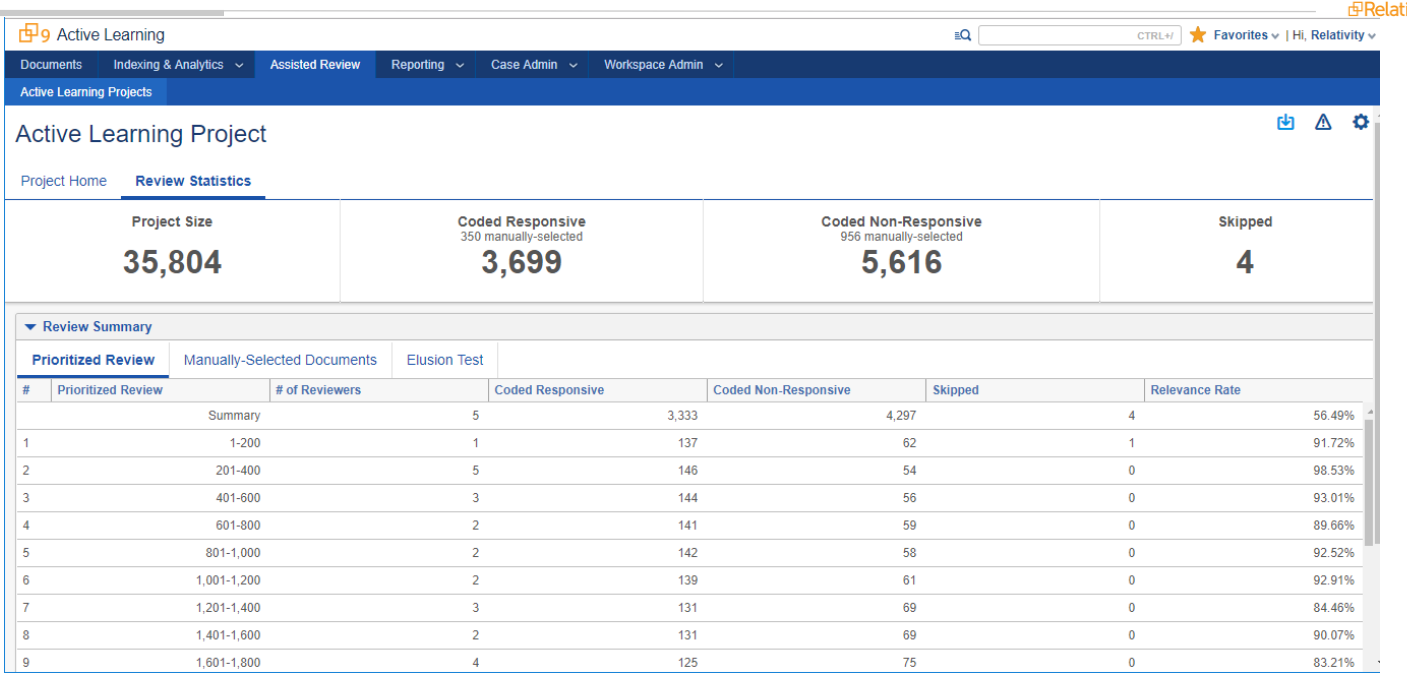
Monitoring with the Review Statistics Tables



#	Prioritized Review	# of Reviewers	Coded Responsive	Coded Non-Responsive	Skipped	Relevance Rate
	Summary	5	3,333	4,297	4	56.49%
1	1-200	1	137	62	1	91.72%
2	201-400	5	146	54	0	98.53%
3	401-600	3	144	56	0	93.01%
4	601-800	2	141	59	0	89.66%
5	801-1,000	2	142	58	0	92.52%
6	1,001-1,200	2	139	61	0	92.91%
7	1,201-1,400	3	131	69	0	84.46%
8	1,401-1,600	2	131	69	0	90.07%
9	1,601-1,800	4	125	75	0	83.21%

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Training your Reviewers

- Four corners test.
- Document coding instructions.
  - What qualifies as “relevant”?
- The exact same principles that we learned when evaluating categorization examples applies here.
  - No need to indicate good example documents, all documents are used for Active Learning training.

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RelativityOne

Why go cloud?

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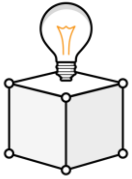
Global Availability

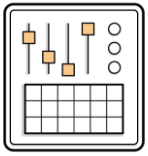
How RelativityOne Can Support Your Business

Security

Service Delivery



Investment
and Innovation



Flexibility
and Independence

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Security

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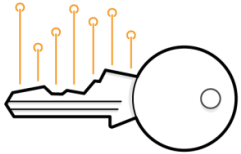
RelativityOne: Security

Running basic security practices and simply responding to threats isn't enough in our ever changing threat landscape.

Investment in Security



Security Features

General Security Operations

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RelativityOne Security Investment

Relativity

Preventative Defense

Automated Security Processes

Transparent Operations

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Relativity Environment 2018 in total

131.5B
Logs

+

269K
Signatures alerted on

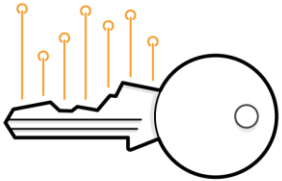
+

70
Validated low-level incidents

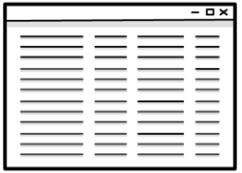
Zero Severe Incidents

Security Features

We’re committed to developing features that keeps data safe



Customer Managed Keys



Relativity Security Logs

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Trace

Going beyond e-Discovery

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Relativity® Trace

- Helps financial service and other regulated organizations identify non-compliant or high risk behavior in their organizations
- Proactive compliance, monitoring, and surveillance
- Rules engine flags and tags relevant content for reviewers
- Automated ingestion and searching

Relativity® Trace

Ingestion → Search Ready → Rules → Alerts

All Automatically

Surveillance and Compliance Monitoring:
There are numerous opportunities within the space.

Relativity Trace

Trader Surveillance

- Insider trading
- Collusion and price fixing
- Market manipulation
- Front-running
- Anti-money laundering

Investment Management Compliance

- Providing advice or recommendations that do not meet suitability or fiduciary standards
- Overstating the performance or minimizing the risk of a financial product

General Monitoring

- Bribery and Corruption (FCPA)
- Improper gifts or kickbacks (pharmaceuticals, general)
- Distribution of confidential information outside of your organization
- Use of offensive language
- Call center monitoring

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Ecosystem

Extending Capabilities

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nuix
equivio
zoom in. find out
milyli
Linguistic Systems, Inc.
eDepoze
GUIDANCE SOFTWARE
ipro
Brainspace
Intelligent Voice
KLDiscovery
braintrace
INTELLIGENT CYBERSECURITY
actiance
cloudnine
VERITONE
HERETIK
SYSTRAN
beyond language
H5
ayfie
ConvergeSol
Solutions Focused On Your Business
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hanzo
NexLP
OPUS 2
INTERNATIONAL
welocalize
doing things differently
blackdot
solutions
NSERIO
CAPITAL NOVUS
Governance | Compliance | E-Discovery
Vound
text IQ
iControlESI
The Science of eDiscovery. The Art of Client Service.
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Computing System Innovations
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www.esilaboratory.com
DiscoverySmith
consortra
translations
nexidia
esquify
LitSavant Ltd
Morningside
Translations
Litexn
Think innovative
#Legal
HashtagLegal.com
DRIVEN
everchron
Forexus
eDiscovery · IT Forensics · Data Analytics
Iconic
Translation Machines
evolver
anexsys
threadKM

Questions?

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RELATIVITY FEST
LONDON, UK
21 MAY 2019
Educational sessions. New innovations. Networking.
Don't miss this complimentary e-discovery conference.
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OCT 20 - 23, 2019
CHICAGO
Mark your calendars, and stay tuned for more info, coming soon.
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Thank you for attending!

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