Webcast Presentation

The Only Thing Constant is Change

An eDiscovery Technology and Tools Update

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Areas of Expertise
- eDiscovery
- Managed Review
- Litigation
- Government Investigations
- Records Management

As VP and GC for HaystackID, Ashish Prasad is widely regarded as among the leading experts on discovery in the United States. He has served, among other things, as Litigation Partner, Founder, and Chair of the Mayer Brown LLP Electronic Discovery and Records Management Group, Executive Editor of The Sedona Principles: Best Practices Recommendations & Principles for Addressing Electronic Document Production (2004), Co-Editor in Chief of the Practicing Law Institute treatise Electronic Discovery Deskbook: Law and Practice (2009), Adjunct Professor of Law at Northwestern University Law School, Chair of the Defense Research Institute Electronic Discovery Committee, and Chair of the Advisory Council of the National South Asian Bar Association.

Ashish has authored over two dozen articles and given over a hundred continuing legal education seminars on topics of electronic discovery before judges, practicing lawyers, and industry groups in the United States, Europe, and Asia. Ashish is a graduate of the University of Chicago Law School, where he was a member of the Law Review, and the University of Michigan, where he graduated with High Honors and High Distinction.

Todd M. Haley

Executive Vice President and General Manager for eDiscovery Operations

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Areas of Expertise
- Computer Forensics
- eDiscovery
- Litigation Support
- Data and Technology Management
- Managed Review
- Managed Services
- Cyber Security

As EVP and General Manager for eDiscovery Operations for HaystackID, Todd provides consulting and operational guidance to help legal departments and law firms address matters related to the planning, management, and execution of eDiscovery.

Mr. Haley brings his experience as a Chief Technology Officer, directing both IT and litigation support, in a nationally recognized consulting firm. At HaystackID, he regularly consults clients on how to plan and implement defensible electronic discovery and data retention strategies. He has developed workflows, documentation, processes and procedures that successfully create efficient and defensible electronic discovery matters and developed one of the first subscription-based electronic discovery pricing models. As part of his client consultation, he works with corporate clients to create internal workflows aimed at defense of process, streamlined timeframes, while lowering the cost of electronic discovery projects.

Mr. Haley has over 16 years of information technology and litigation support experience. He has been an Adjunct Professor on legal technology at Georgetown University and is a frequent author and speaker on electronic discovery.

Vazantha Meyers, Esq.

Vice President of eDiscovery Services

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Areas of Expertise
• Project Management
• Document Review
• Recruiting and Staffing

As VP of eDiscovery Services for HaystackID, Vazantha has extensive experience in advising and helping customers achieve their legal document review objectives.

Previously, she worked as a litigation associate at Mayer Brown LLP. While at Mayer Brown, Vazantha worked in the Electronic Discovery and Records Management Group, providing counsel to corporate clients on discovery and records management issues.

She has developed workflows, documentation, processes and procedures that successfully create efficient and defensible managed review matters. She has trained of team of highly skilled managed review professionals, who are proficient in several review tools and methodologies, including the latest analytical tools. As part of her client consultation, she works with corporate clients to create internal workflows aimed at increasing accountability, while lowering the cost and inconsistency of managed review across projects.

Vazantha contributed to the Practicing Law Institute treatise Electronic Discovery Deskbook: Law and Practice (2009 and 2019) and has written many articles and presentations on various topics related to electronic discovery. Vazantha attended Valparaiso University School of Law, where she graduated as a Monsanto Honors Scholar.

Agenda

- **A View from the Bench:** How the Courts Are Considering New Technologies

- **Considering Forensic Analysis:** New Technologies and Approaches

- **Beyond Tradition:** An Update on Audio, Video, and Foreign Language Analysis

- **Emerging Data Types:** Analyzing the New With the Latest Tools

- **Faster Review and Faster Decisions:** Enhancing Document Review

A View From the Bench

How the Courts are Considering New Technologies

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Don't Assume the Future Will Be the Same

"Chief Justice Roberts [in] his undergraduate thesis at Harvard […] was that politicians, and judges for that matter, should be wary of the assumption that the future will be little more than an extension of things as they are today."

Joel Slemrod, 2006. "**Taxation and Big Brother: information, personalisation and privacy in 21st century tax policy**," Fiscal Studies, Institute for Fiscal Studies, vol. 27(1), pages 1-15, March.

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Emerging Technologies…
Don't Have Regulatory Systems

- Emerged so fast that government oversight has not been able to keep up

- Any enactment of legislation would be obsolete, due to the rapid changes in these technologies

- The courts are having to deal with these technologies in real time, sometimes making decisions about them without a full understanding of the capabilities of the technology

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IoT Data is Shown Relevant in Litigation

- *Flynn v. FCA US*, 327 F.R.D. 206 (S.D. Ill. 2018);

- *TDE Petroleum Data Solutions v. AKM Enterprises,* No. CIV.A. H-15-1821 (S.D. Tex. Sept. 11, 2015), aff'd, 657 F. App'x 991 (Fed. Cir. 2016);

- *McLellan v. Fitbit,* No. 3:16-CV-00036-JD (N.D. Cal. Oct. 11, 2017);

- *Columbia Pictures v. Bunnell*, 245 F.R.D. 443, 447 (C.D. Cal. 2007);

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Considering Forensic Analysis

New Technologies and Approaches

Forensic Analysis

- Magnet's Axiom (formerly Internet Evidence Finder)
  - ✓ This internet evidence finder allows for components of the new internet artifacts to be found easily

- X-1 Social Discovery
  - ✓ Continues to emerge as an advanced tool for collecting social media

- X-Ways Forensics
  - ✓ A slimmed down, evidence parsing technology for carving unallocated data

- Apple MAC
  - ✓ Blackbag's Blacklight for examinations
  - ✓ Macquisition for collections

- Change to Electronic Licenses – COVID-19 requirements have moved dongle-based solutions to electronic licenses

Beyond Tradition

An Update on Audio, Video, and Foreign Language Analysis

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Audio Transcription

- The use of audio discovery is now beginning to increase worldwide, as new emerging technologies enter the legal industry to compete in this arena

- These emerging technologies understand that no single audio Artificial Intelligence engine delivers the needed accuracy rates (only 30-50%), nor do they provide accurate transcripts across multiple languages and dozens of accents

- These emerging tools, such as Authenticity.AI, have built open platforms of multiple Artificial Intelligence audio engines, including their own engines, to provide accurate data

  - ✓ Match the best mix of engines with each unique single audio source
  - ✓ Custom train the engines for each locations
  - ✓ Linguistic training for important words and phrases using manual transcripts that are created from each location's sample audio

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Multi-Engine Approach

Audio

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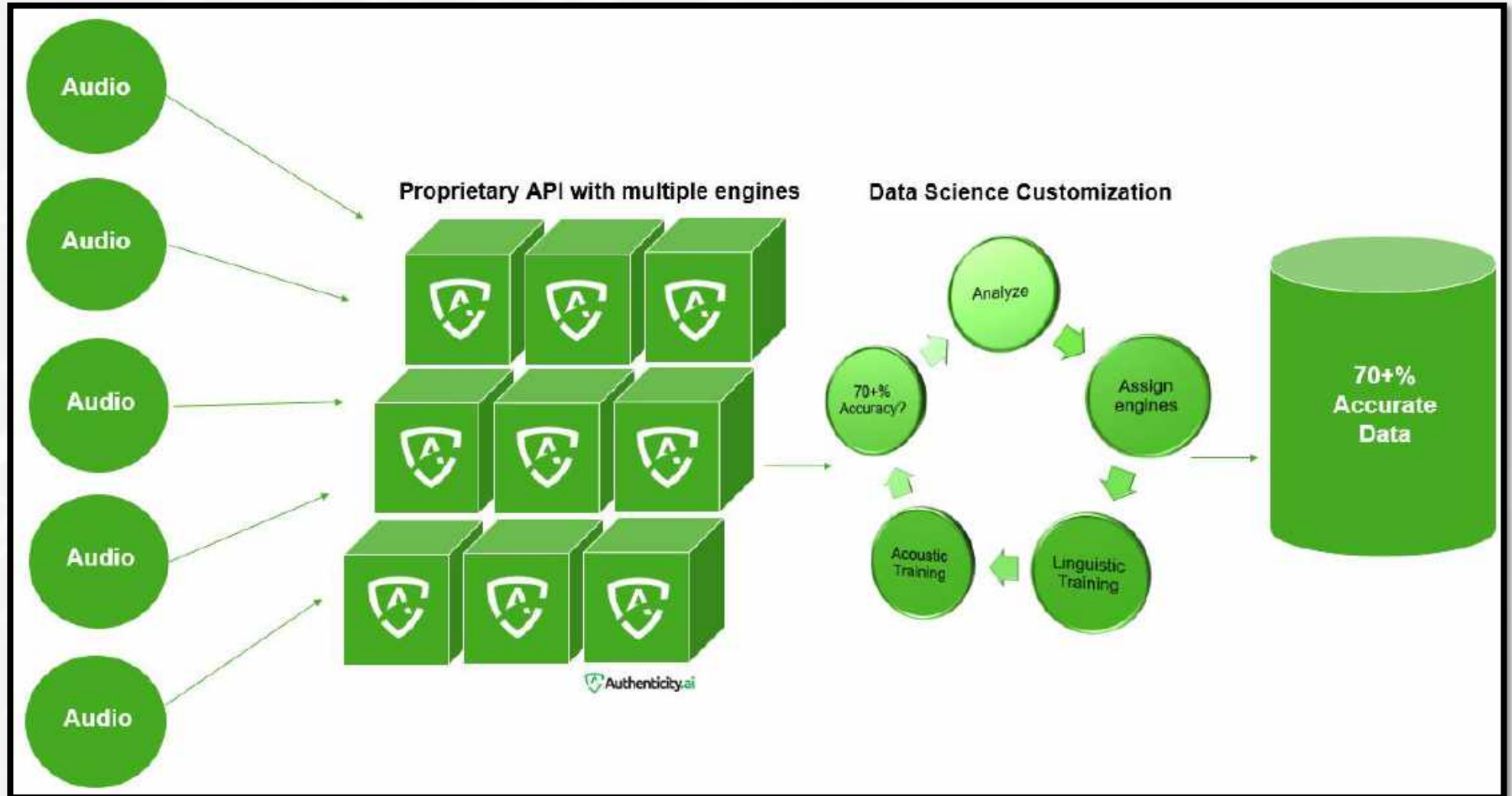
Video Transcriptions

- Similar to audio transcriptions, emerging technologies can proactively survey and video communications in near real-time for risks and potential violations such as insider trading, collusion, market manipulation, fraud and more

- Allows for eDiscovery of unstructured ESI, including dash camera, body camera, CCTV, interview room and other audio/video evidence assets possible using some of the leading web review platforms, such as Relativity

  ✓ Video transcripts can be searched for keywords relevant to your matter, and linking the text transcript directly to the section within the video

- In the legal industry, these open, extensible platforms and applications can help legal teams to search, analyze, cull and explore large amounts of video communications

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Language Translation

With a rapidly growing global community, emerging technologies are
getting better at providing understanding across all languages

Linguistic Systems, Inc.

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Emerging Language Technologies

- These emerging technologies provide for neural networks, which have much deeper learning translations and cover all major language pairs for Europe, Asia and the US

- Native-to-native and text-to-text capabilities are both available within these new technologies

- These technologies also allow for training materials to be used to enhance client industry needs and solutions

- Language Translation integration with major review platforms, such as Relativity, are becoming more common place

Human and Machine Translation

- Many of the newest emerging technologies also allow for documents to be coded within the major platforms for multiple translation solutions

  ✓ Human Translation

  ✓ Human Translation + Editing (HTE)

  ✓ Statistical Machine Translation (SMT)

  ✓ Neural Machine Translation (NMT)

  ✓ Enhanced Machine Translation (EMT)

    ❖ Custom language dictionaries

    ❖ Machine + light or full post editing

Emerging Data Types

Analyzing the New With the Latest Tools

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Emerging Data Types

- Imperative to retain a forensic service provider with vetted experience in handling this type of data, since it is constantly changing;

- Emerging data types include:

  - ✓ Collaboration tools, such as Slack
  - ✓ Home automation and voice control technologies, such as Amazon Alexa, Google Assistant and Microsoft's Cortana
  - ✓ GPS and Location-Tracking technology

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Slack: Corporate Collaboration eDiscovery

- What is Slack?

    - ✓ Slack allows individuals to work together and collaborate, by organizing messages into channels, private direct messages and multi-party messages
    - ✓ Channels can be correlated to all types of things, from teams, projects, parties, business locations, special business units, etc.

- While Slack is easy to use for the corporate consumer, the ease of the solution is what makes its data so complex to collect and analyze, due to its extremely dynamic nature

- Emerging tools, including Slack's own Discovery API, can be used by trained forensic experts and experienced information technology personnel to properly collect from Slack
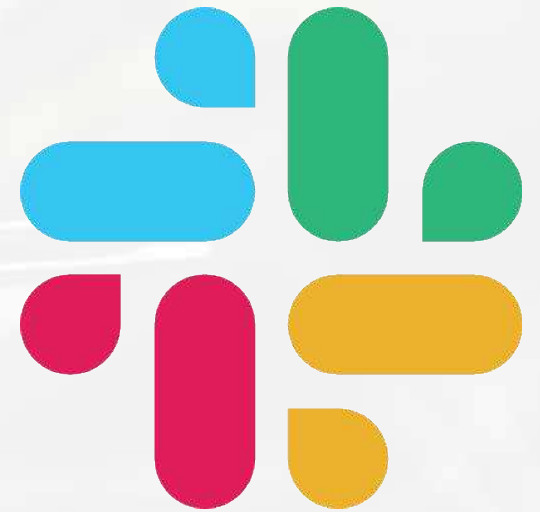
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Faster Review and Faster Decisions

Enhancing Document Review

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Artificial Intelligence

- Artificial Intelligence is "the study of mental faculties through the use of computational models"[1]

    - ✓ In relation to its use in the legal industry, artificial intelligence is used so that computers can use these computational methods to determine responsiveness, privilege and issues

- Technology-Assisted Review

    - ✓ Technology-Assisted Review (TAR) is "a process of having computer software electronically classify documents based on input from expert reviewers, in an effort to expedite the organization and prioritization of the document collection [and] may dramatically reduce the time and cost of reviewing ESI, by reducing the amount of human review needed on documents classified as potentially non-material."[2]

[1]EUGENE CHARNIAK & DREW MCDERMOTT, INTRODUCTION TO ARTIFICIAL INTELLIGENCE 6 (Mark S. Dalton et al. eds., 1985)
[2]"Technology Assisted Review." EDRM. Accessed May 19, 2020. https://www.edrm.net/resources/frameworks-and-standards/technology-assisted-review/.

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Technology-Assisted Review

- It is a mistake to assume that TAR 1.0, TAR 2.0 and TAR 3.0 are new versions of the same solution; rather, they are different methodologies and the TAR methodology should be matched to the review objectives

- Technology Assisted Review is also ever emerging as new methodologies and new artificial technology solutions become available

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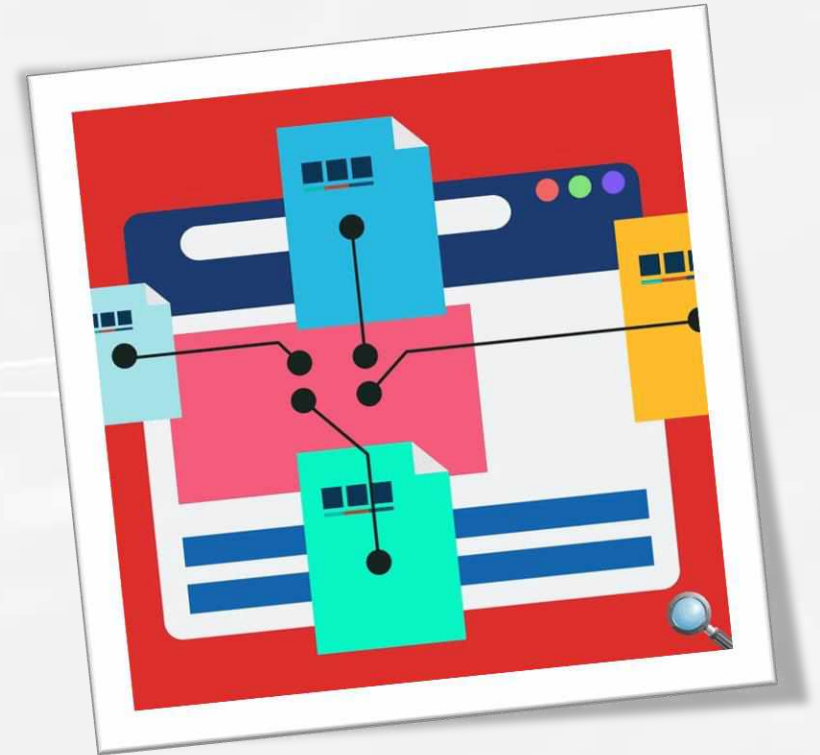
Ever Emerging Technology-Assisted Review

- TAR 1.0 involves a training phase followed by a review phase with a control set being used to determine the optimal point when you should switch from training to review. The system no longer learns once the training phase is completed. The control set is a random set of documents that have been reviewed and marked as relevant or non-relevant. The control set documents are not used to train the system. They are used to assess the system's predictions so training can be terminated when the benefits of additional training no longer outweigh the cost of additional training.

- TAR 2.0 uses an approach called Continuous Active Learning® (CAL®), meaning that there is no separation between training and review—the system continues to learn throughout. While many approaches may be used to select documents for review, a significant component of CAL is many iterations of predicting which documents are most likely to be relevant, reviewing them, and updating the predictions. Unlike TAR 1.0, TAR 2.0 tends to be very efficient even when prevalence is low. Since there is no separation between training and review, TAR 2.0 does not require a control set. Generating a control set can involve reviewing a large (especially when prevalence is low) number of non-relevant documents, so avoiding control sets is desirable

Robinson, Rob. "Predictive Coding Technologies and Protocols: Fall 2019 Survey." ComplexDiscovery, September 5, 2019. https://complexdiscovery.com/predictive-coding-technologies-and-protocols-fall-2019-survey/.

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Ever Emerging Technology-Assisted Review

(cont.)

- TAR 3.0 requires a high-quality conceptual clustering algorithm that forms narrowly focused clusters of fixed size in concept space. It applies the TAR 2.0 methodology to just the cluster centers, which ensures that a diverse set of potentially relevant documents are reviewed. Once no more relevant cluster centers can be found, the reviewed cluster centers are used as training documents to make predictions for the full document population. There is no need for a control set–the system is well-trained when no additional relevant cluster centers can be found. Analysis of the cluster centers that were reviewed provides an estimate of the prevalence and the number of non-relevant documents that would be produced if documents were produced based purely on the predictions without human review. [...}] The key point is that the user has the info he/she needs to make a decision about how to proceed after completing review of the cluster centers that are likely to be relevant, and nothing done before that point becomes invalidated by the decision (compare to starting with TAR 1.0, reviewing a control set, finding that the predictions aren't good enough to produce documents without review, and then switching to TAR 2.0, which renders the control set virtually useless).

Robinson, Rob. "Predictive Coding Technologies and Protocols: Fall 2019 Survey." ComplexDiscovery, September 5, 2019. https://complexdiscovery.com/predictive-coding-technologies-and-protocols-fall-2019-survey/.

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Questions and Answers