



# BEYOND THE PAPERCLIP

MANAGING LINKED DOCUMENTS FROM COLLECTION TO PRODUCTION



**REPARIO**

COLLABORATIVE INTELLIGENCE

- Welcome to today's webinar entitled, *"Beyond the Paperclip - Managing Linked Documents from Collection to Production"*
- First installment of our monthly educational content series (webinars, papers, etc.) - visit the "Intel" section our website for upcoming events
- Today's webinar focus
  - Rethinking "Attachments" in the Cloud Era
  - Spoiler: They are (Hyper) Linked Documents
  - Why terminology and collection methodology matter
  - Collection, Review and Production Considerations
- Ask questions in the webinar Q&A chat box
- Post-webinar email with link to recorded webinar, slides and survey tomorrow



## A LITTLE BIT ABOUT US

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- Repario is an agile legal services company that **synchronizes human intellect and modern technologies** to deliver integrated eDiscovery, IaaS, Managed Review and expert Forensic services that transform raw data into actionable intelligence.
- **Collaborating** closely with law firms, corporations, channel partners and government agencies, we simplify complex challenges, optimize workflows and deliver clarity to **empower clients to achieve their goals**.

*In short, we **collaborate** closely with clients to help them achieve their goals*

- Scott Polus – Senior VP of Forensics
  - 20+ Years Industry Experience
  - Testifying Expert – Digital Forensics
  - Court-Appointed Discovery Neutral
  - Educational CLE Presenter





# WHY THIS MATTERS NOW

SHIFT TO CLOUD EVIDENCE AND TERMINOLOGY

# THE SHIFT TO CLOUD-NATIVE EVIDENCE

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- Most Enterprise Communications occur in
  - Microsoft 365
  - Google Workspace
- Embedded Data vs Cloud-Resident Linked Documents

# THE TERMINOLOGY PROBLEM

- Term "Modern Attachments" is misleading
- They are:
  - Not Attached
  - Not (that) Modern
  - Hyperlinked
  - Permission-Controlled
  - Versioned
  - Stored Externally
  - From here forward: **Linked Documents**



# LEGACY VS LINKED DOCUMENTS

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- Legacy Attachments
  - Embedded
  - Immutable once sent
  - Stored in mailbox
  - One-to-one parent/child
  - Straightforward hashing
- Linked Documents
  - URL reference
  - Mutable
  - Stored in cloud repository
  - Multi-parent relationships
  - Version-controlled
  - May not reflect “as-sent” state



# WHAT LINKED DOCUMENTS ACTUALLY ARE

DYNAMIC ARCHITECTURE, OWNERSHIP, AND LOCATION

- Microsoft 365
  - Email Resides in Exchange Mailbox
  - LD Lives in OneDrive or SharePoint
  
- Google Workspace
  - Email Resides in Gmail
  - LD Lives in Google Drive or Shared Drives

- Linked Documents
- Auto-Save
- Concurrent Editing
- Revisions History
- May Change Within Minutes of being Shared



- Email Sender May Not
  - Own the file
  - Control Retention Policies
  - Control Permissions
  
- The Linked Document May
  - Reside in another employee's OneDrive
  - Originate from a Group SharePoint Site
  - Reside in a non-cloud Drive





# THE “AS-SENT” MYTH

WHAT DOES “AS-SENT” EVEN MEAN?

- In M365 “As-sent” may be possible IF:
  - Version History Retention Policy
  - Retention aligned
  - Correct collection method used
  - Proper access (e.g., Purview vs Graph API vs EWS)
  - Archive mailboxes included when applicable

Even then, it depends



In Google, “As-sent” isn’t possible

- No immutable snapshot tied to send event
- Version history exists
  - But no native “mailbox snapshot” of file at send time
- You may only collect:
  - Current version;
  - Or the closest available revision;
  - Or All Versions

This distinction matters in Authentication, Admissibility and Testimony





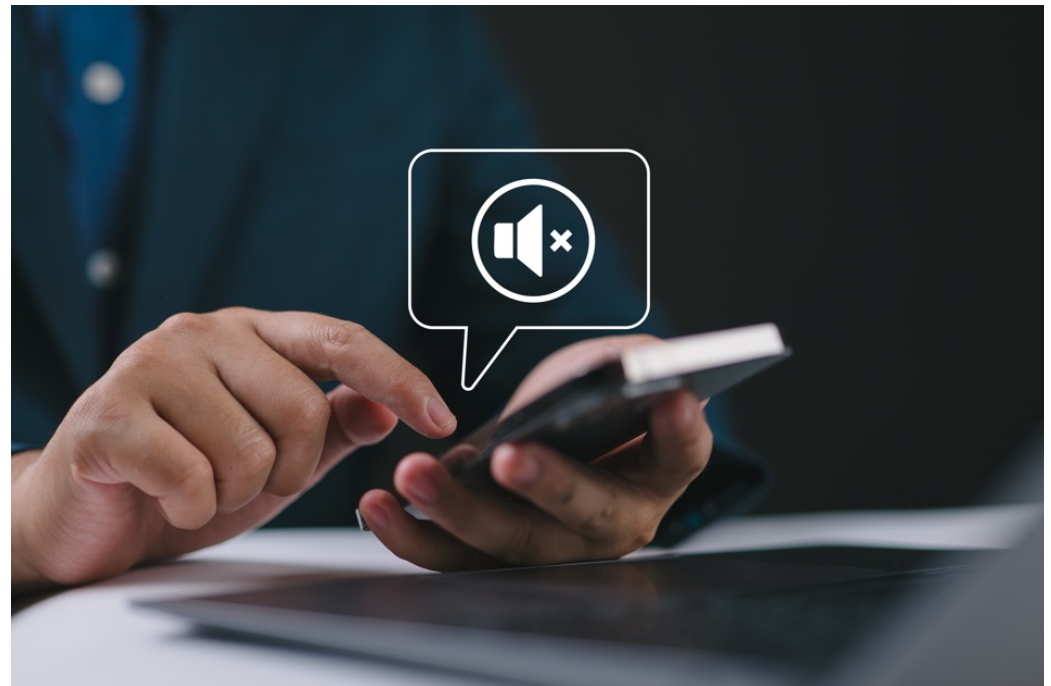
# COLLECTION METHODOLOGIES

BLIND SPOTS AND MISSING DATA

- Collecting Email is not collecting the Linked Document
  - Attachments are Included
  - URLs will be in Message Body
- Additional Collections
  - Purview: SharePoint // OneDrive
  - API-based Collection (Graph or EWS)
  - Archive Mailboxes
  - Secure Clouds



- Between send and collection:
  - File may be deleted
  - Permissions may change
  - Version history may purge
  - Link may break



# CLOUD AND NON-CLOUD MIGRATIONS

- Migration Can:
  - Change URLs
  - Alter file IDs
  - Break version continuity
  - Remove historical revisions



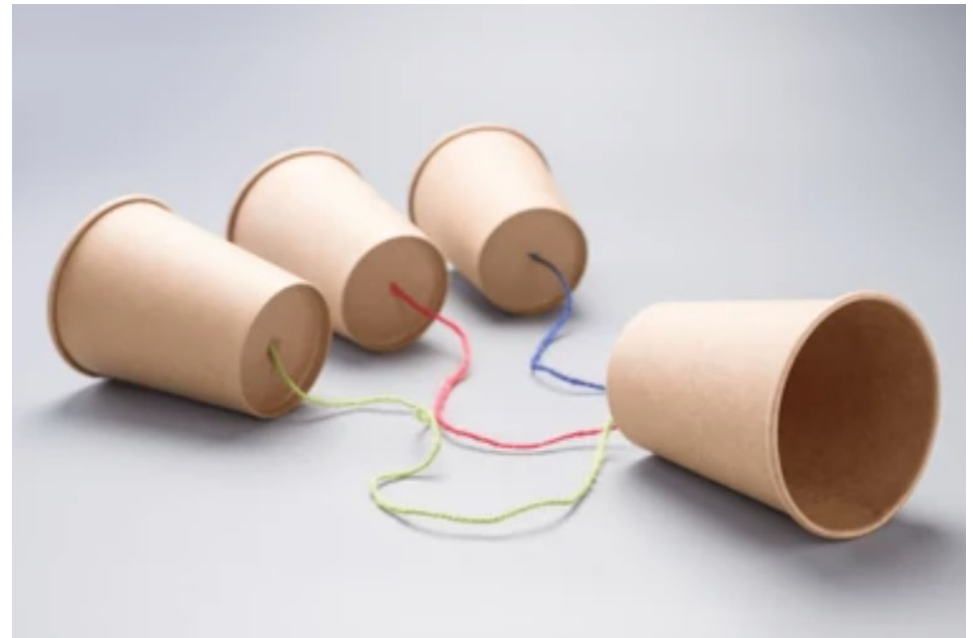


# REVIEW AND PRODUCTION COMPLEXITIES

LINKED DOCUMENTS – FAMILY OR LOOSE DOCUMENTS?

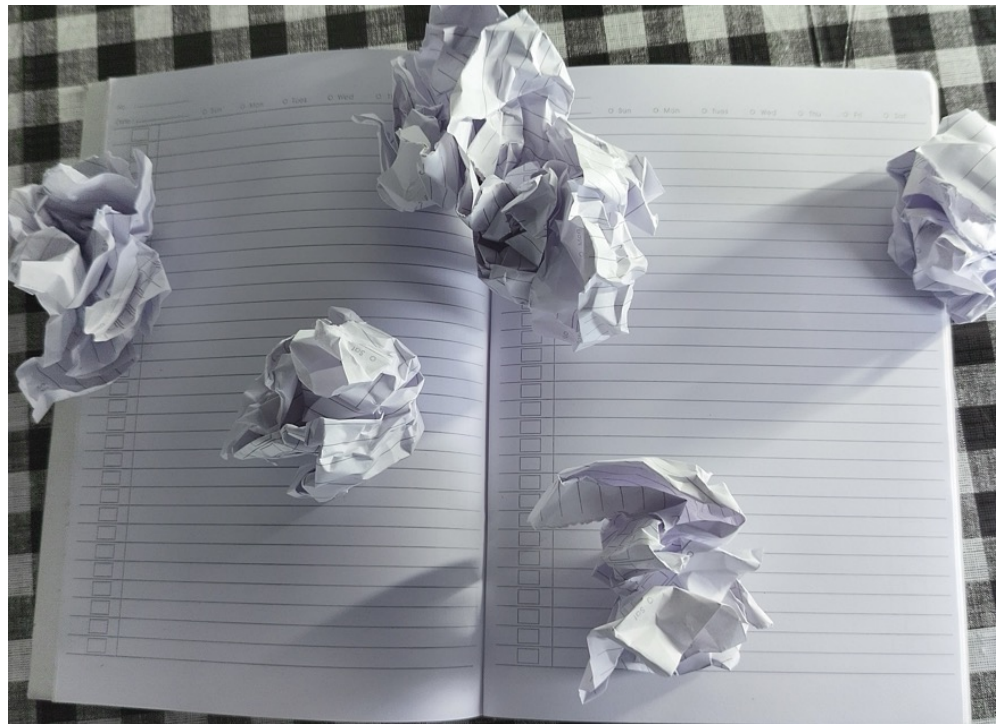
## THE 1-TO-MANY PROBLEM

- One Linked Document is in 37 emails...
  - Produce once?
  - Attach to each?
  - Deduplicate?
  - Multi-parent Field?



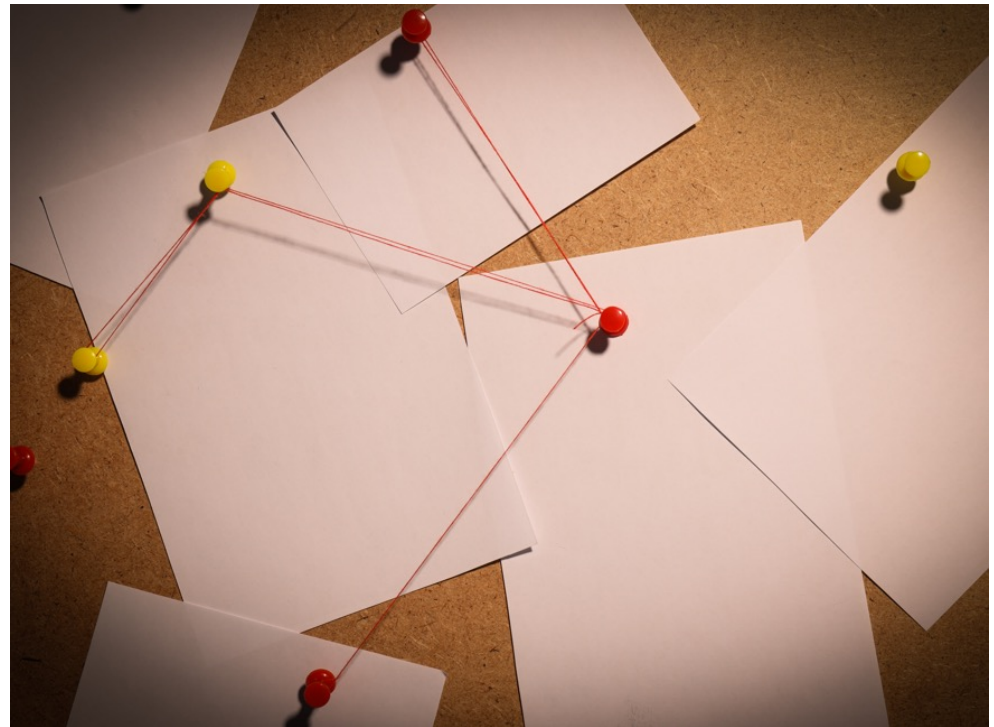
# THE MANY-TO-MANY PROBLEM

- One email links to one LD
- LD has 12 Revisions
- What are the Revisions?
  - Children?
  - Separate documents?
  - Near duplicates?

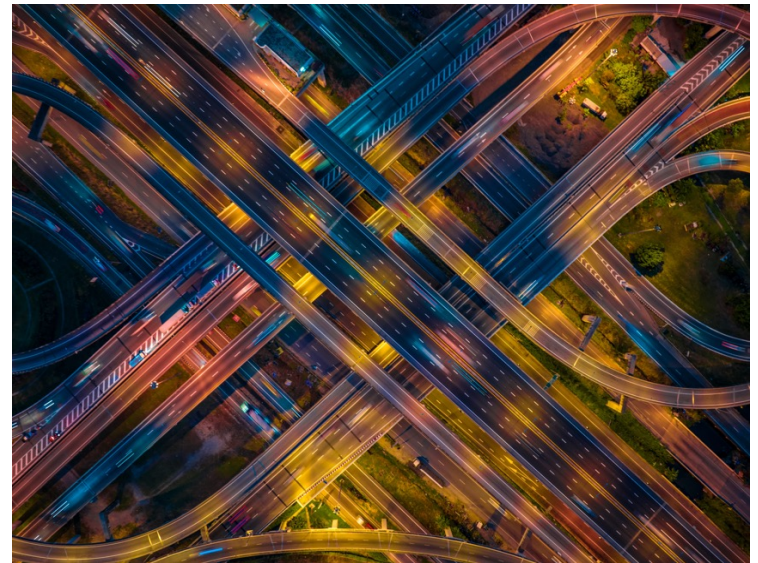


## LINKED DOCUMENT REVIEW CONSIDERATIONS

- Multi-parent relationships
- Cross-custodian dependencies
- Version-layered evidence objects



- Production Decisions
  - Produce native LD?
  - Placeholder?
  - Include revision history?
  - Represent multi-parent relationships how?
  
- Metadata Considerations – Fields to Capture:
  - Original URL
  - Version ID
  - Revision timestamp
  - Collection timestamp
  - Source repository
  - Custodian association(s)



- Linked Documents should be addressed in the meet-and-confer
  
- At a minimum, define:
  - Version to be produced
  - Handling of multi-parent relationships
  - Required metadata
  - Treatment of revision history

A detailed close-up photograph of a mechanical watch movement, showing intricate gears, springs, and metal components. The lighting is dramatic, highlighting the textures and metallic surfaces of the watch parts.

# FINAL THOUGHTS

STARTING BLOCKS

## FIVE QUESTIONS TO ASK

1. Are Linked Documents present and required?
2. Where do they reside?
3. What version are we producing?
4. How are multi-parent relationships handled?
5. Is this addressed in the ESI protocol?



A close-up, macro photograph of a mechanical watch movement. The image shows intricate metal gears, springs, and plates, with some parts having a polished, reflective finish and others being matte. The lighting is dramatic, highlighting the textures and metallic sheen of the components. The background is dark and out of focus, emphasizing the complexity of the watch's internal mechanism.

Q & A

WEBINAR PARTICIPANT QUESTIONS

- Thank you for attending
- Forthcoming post-webinar email with link to landing page
  - Recorded webinar
  - Copy of slides
  - Quick survey
- Stay tuned for email invites to our Wed, Apr 1st webinar showcasing "Pulse Portal – Real-Time Matter Management Command Center"

A close-up photograph of a mechanical watch movement, showing intricate gears, springs, and metal components. The image is partially obscured by a dark grey horizontal bar at the top and bottom. The text "THANK YOU" is overlaid in white, centered on the watch movement.

THANK YOU