Mary Mack
Executive Director
ACEDS

David Horrigan
eDiscovery Counsel
kCura

George Socha
Managing Director
BDO

Bill Dimm
Founder and CEO
Hot Neuron

Doug Austin
VP of Professional Services
CloudNine

Bill Speros
Principal
Speros & Associates

10 Years Forward, 10 Years Back:

Automation in eDiscovery

Panel Overview

Introduction

From the EDRM to Four Generations of eDiscovery

- **10+ Years Back, 10 Years Forward**
- **Evolution of eDiscovery Automation**

Considering Technology-Assisted Review

- **The Acceptance Of TAR by the Bench and Bar**
- **The Current State of TAR Technology**
- **The Promise and Practice of TAR**

Questions & Answers

The Future of eDiscovery/Closing Comments

Seminar Panelists for Today's Guided Discussion

Mary Mack – Moderator

E-discovery pioneer **Mary Mack** leads the Association of Certified eDiscovery Specialists (ACEDS) leads the Association of Certified eDiscovery Specialists (ACEDS) as the executive director. Mary provides ACEDS and its membership more than a decade of strong credibility and sound leadership within the e-discovery community. Mary is the author of A Process of Illumination: The Practical Guide to Electronic Discovery, considered by many to be the first popular book on e-discovery. She is the co-editor of the Thomson Reuters West treatise, eDiscovery for Corporate Counsel.

George Socha

Co-founder of EDRM, **George Socha** is a Managing Director in BDO Consulting's Forensic Technology Services practice. Named an "E-Discovery Trailblazer" by The American Lawyer, he assists corporate, law firm, and government clients with all facets of electronic discovery, including information governance, domestically and globally. Prior to joining BDO, George spent 16 years as a litigation attorney in private practice before starting his own consulting firm focused on e-discovery issues in 2003. He received his law degree from Cornell Law School and his undergraduate degree from the University of Wisconsin-Madison.

Doug Austin

Doug Austin is the Vice President of Professional Services for CloudNine. At CloudNine, Doug manages professional services consulting projects for CloudNine clients. Overall, Doug has over 25 years of experience providing legal technology consulting, technical project management and software development services to numerous commercial and government clients. Doug has managed projects in all phases of the EDRM eDiscovery life cycle. Doug is also the editor of the CloudNine sponsored e-Discovery Daily blog, which has become a trusted resource for e-Discovery news and analysis.

Seminar Panelists for Today's Guided Discussion

David Horrigan

David Horrigan is kCura's e-discovery counsel and legal content director. An attorney, law school guest lecturer, e-discovery industry analyst, and award-winning journalist, David has served as counsel at the Entertainment Software Association, reporter and assistant editor at The National Law Journal, and analyst and counsel at 451 Research. He serves on the Editorial Advisory Board of Legaltech News and the Data Law Board of Advisors at the Yeshiva University Cardozo Law School. David holds a Juris Doctor from the University of Florida, and he studied international law at Universiteit Leiden in the Netherlands.

Bill Dimm

Bill Dimm is the Founder and CEO of Hot Neuron LLC. He developed the algorithms for predictive coding, conceptual clustering, and near-dupe detection used in the company's Clustify software. He is currently writing a book that is tentatively titled Predictive Coding: Theory & Practice. He has over two decades of experience in the development and application of sophisticated mathematical models to solve real-world problems in the fields of theoretical physics, mathematical finance, information retrieval, and e-discovery. He has a Ph.D. in theoretical elementary particle physics from Cornell University.

Bill Speros

Bill Speros helps in-house counsel and their law firms employ effectively technologies and techniques to meet discovery-related obligations, increasingly serving as a "whispering" expert at meet-and-confer meetings and at evidence-related hearings. Bill has served as an independent attorney-consultant since 1989 with this exception: for 4,000 hours Bill served as interim Director of Litigation Support and E-Discovery for the trustee administering bankruptcy proceedings in the largest Ponzi scheme in history, Bernie L. Madoff Investment Securities.

Disclaimer

Ideas expressed here are not necessarily those of our clients or employers and may simply represent ideas intended to be helpful in the context of this seminar.

10+ Years Back, 10 Years Forward
Automation in eDiscovery

George Socha
Managing Director, Forensic Technology Services
BDO

cloudnine™

ACEDS

10+ Years Back: Automation in eDiscovery

1987/1988	**Summation & Concordance introduced**	• Two of the earliest litigation support software programs. • Set foundation for load files we use today.
~1991	**Litigation images delivered on CD**	• For the first time, images and data about images delivered on single, affordable medium. • Could be used on standard PC.
1997	**Guidance Software founded**	• One of earliest tools for preserving & analyzing ESI.
2003	**Discovery Cracker introduced**	• Early tool for processing ESI.

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 **2016** 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

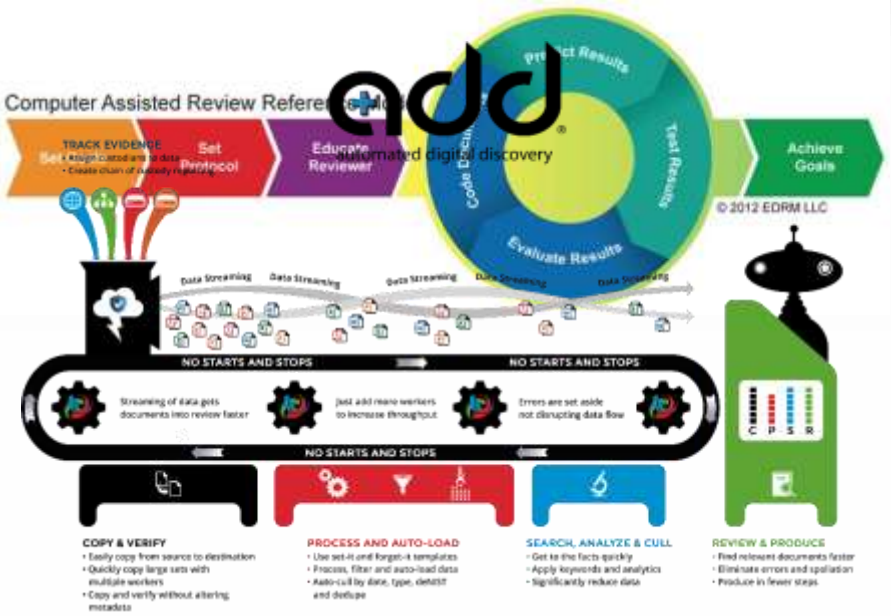
10+ Years Back: Automation in eDiscovery

EDRM Diagram published	• Provided framework around which much eDiscovery automation has been built.
kCura introduced Relativity Ecosystem	• kCura opened its platform to developers. • Let others build automation tools on top of Relativity platform.
Recommind introduced "Predictive Coding"	• Catchy phrase brought attention to a little-known technique. • Approach helped automate review process.

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 **2016** 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

10+ Years Back: Automation in eDiscovery

EDRM introduced CARRM	• Consensus model to describe Predictive Coding / Technology Assisted Review / Computer Assisted Review.
IPRO introduced ADD	• IPRO liken "Automated Digital Discovery" process to a factory production line.



2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

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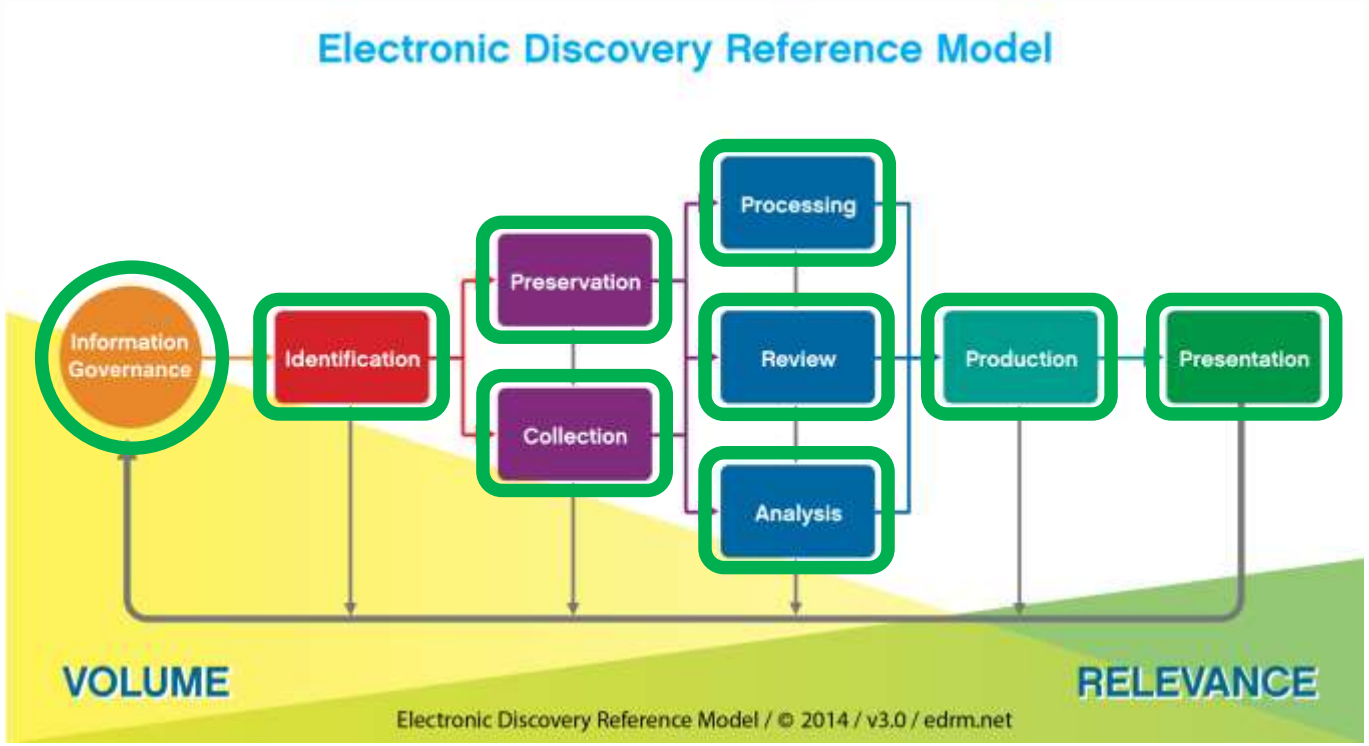
10 Years Forward: Automation in eDiscovery

More automation at every stage of the process



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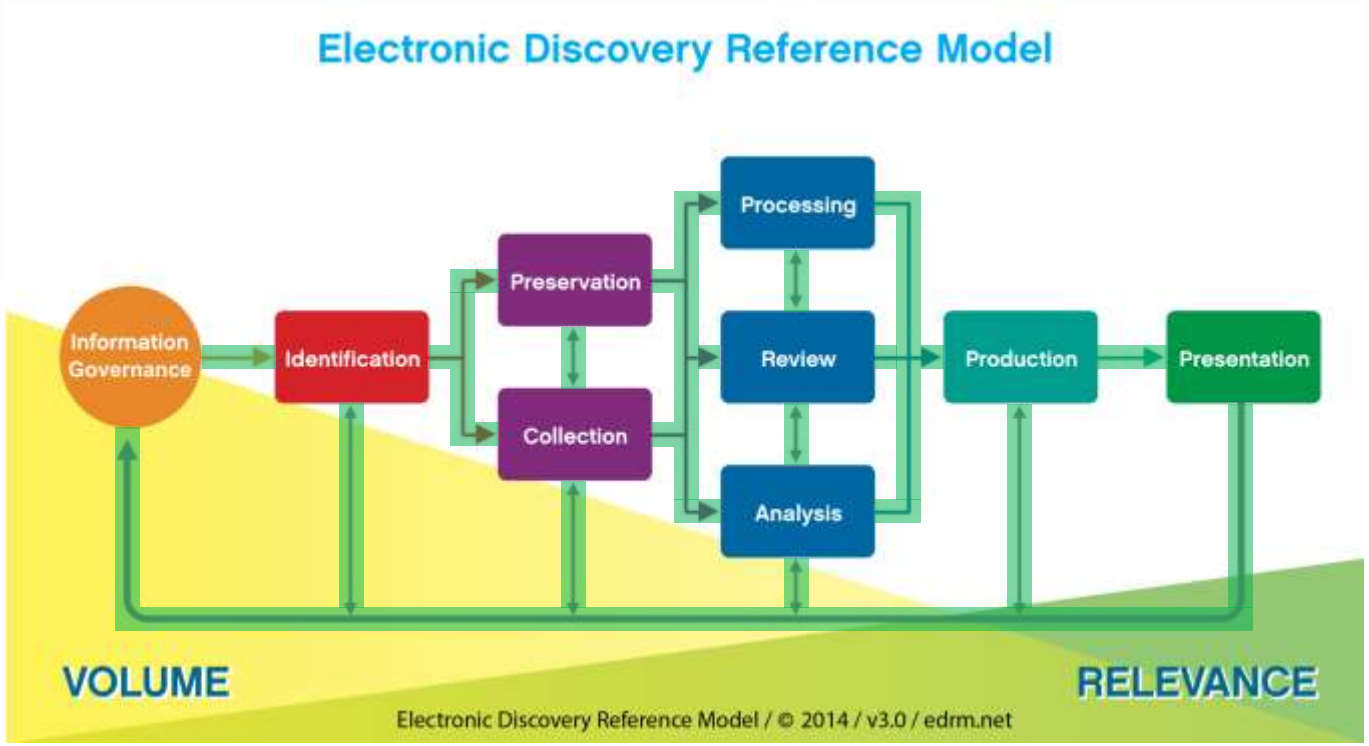
10 Years Forward: Automation in eDiscovery

More automation at every stage of the process

More automation between stages



2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 **2016** 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

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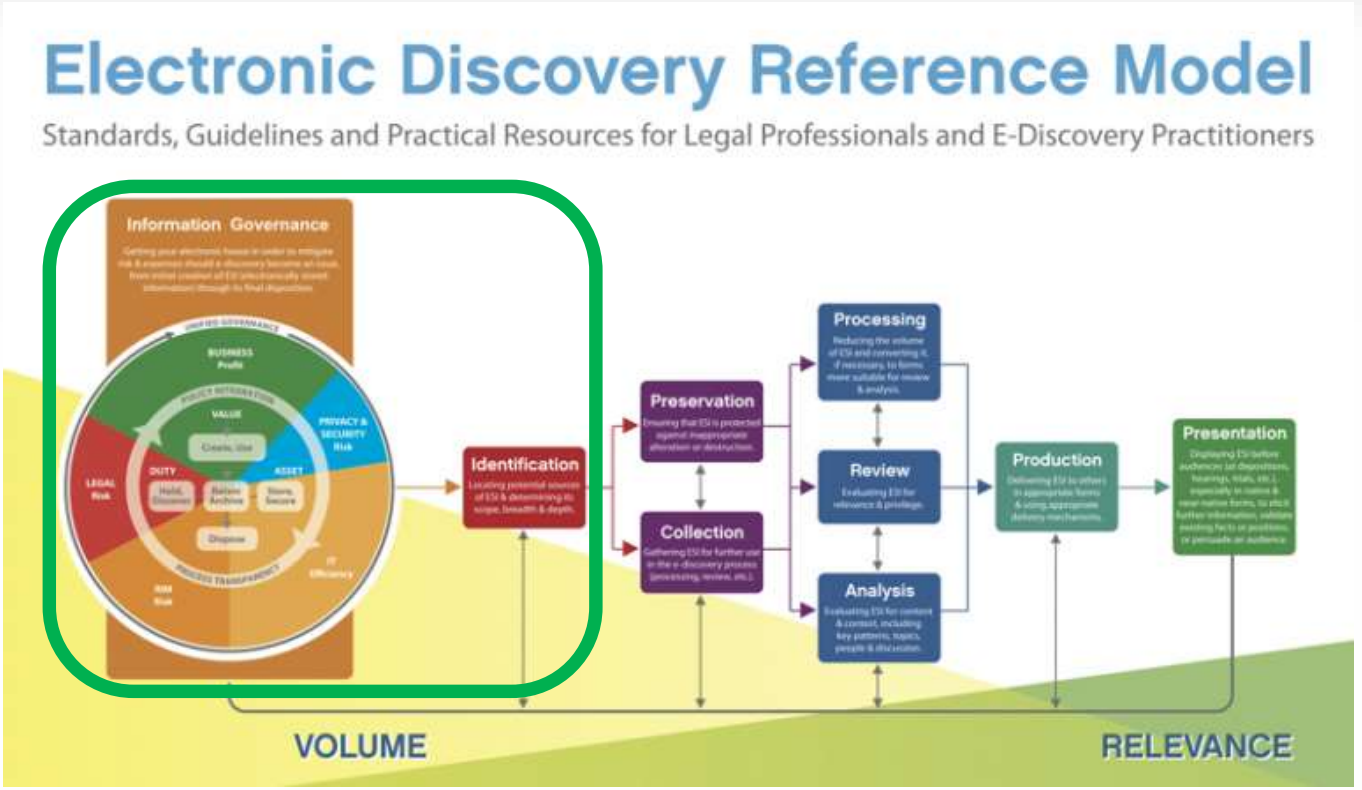
10 Years Forward: Automation in eDiscovery

More automation at every stage of the process

More automation between stages

More automation between eDiscovery & elsewhere



2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 **2016** 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

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10 Years Forward: Automation in eDiscovery

Processes driven & informed by:

Data analytics

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 **2016** 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

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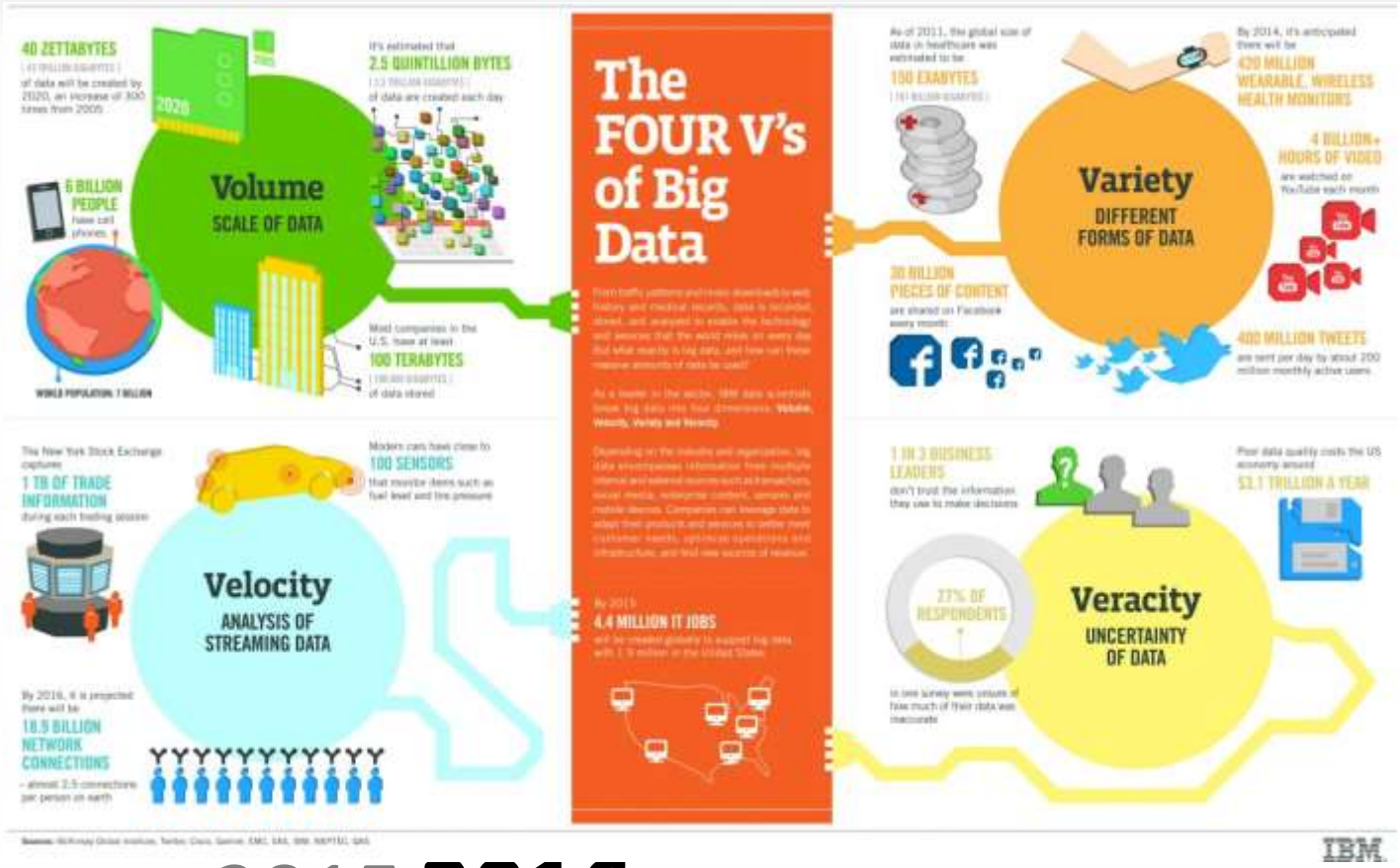
Image from http://www.ucsc-extension.edu/content/enhanced-database-and-data-analytics-certificate-program

10 Years Forward: Automation in eDiscovery

Processes driven & informed by:

Data analytics

Big Data



2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 **2016** 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

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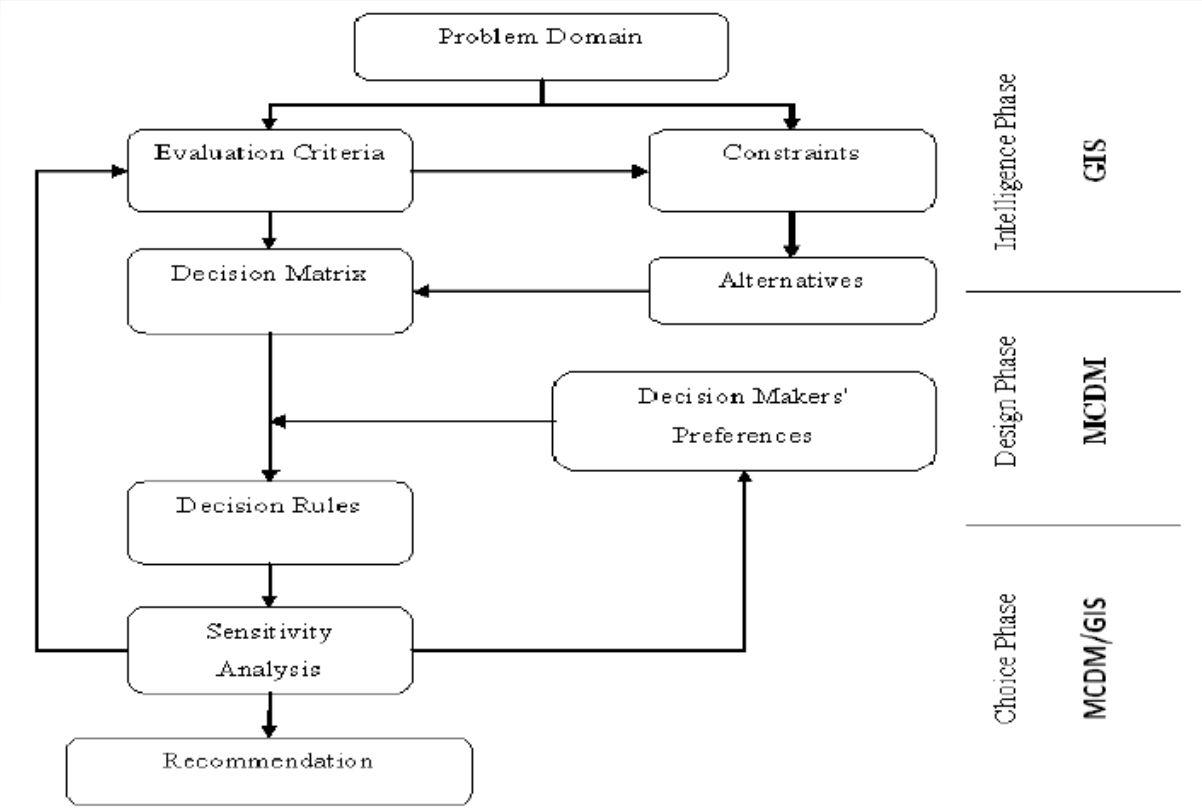
10 Years Forward: Automation in eDiscovery

Processes driven & informed by:

Data analytics

Big Data

Decision analyses



2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 **2016** 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

10 Years Forward: Automation in eDiscovery

Where does all this take us?

+ Google + airbnb

What happens to lawyers? What happens to courts?

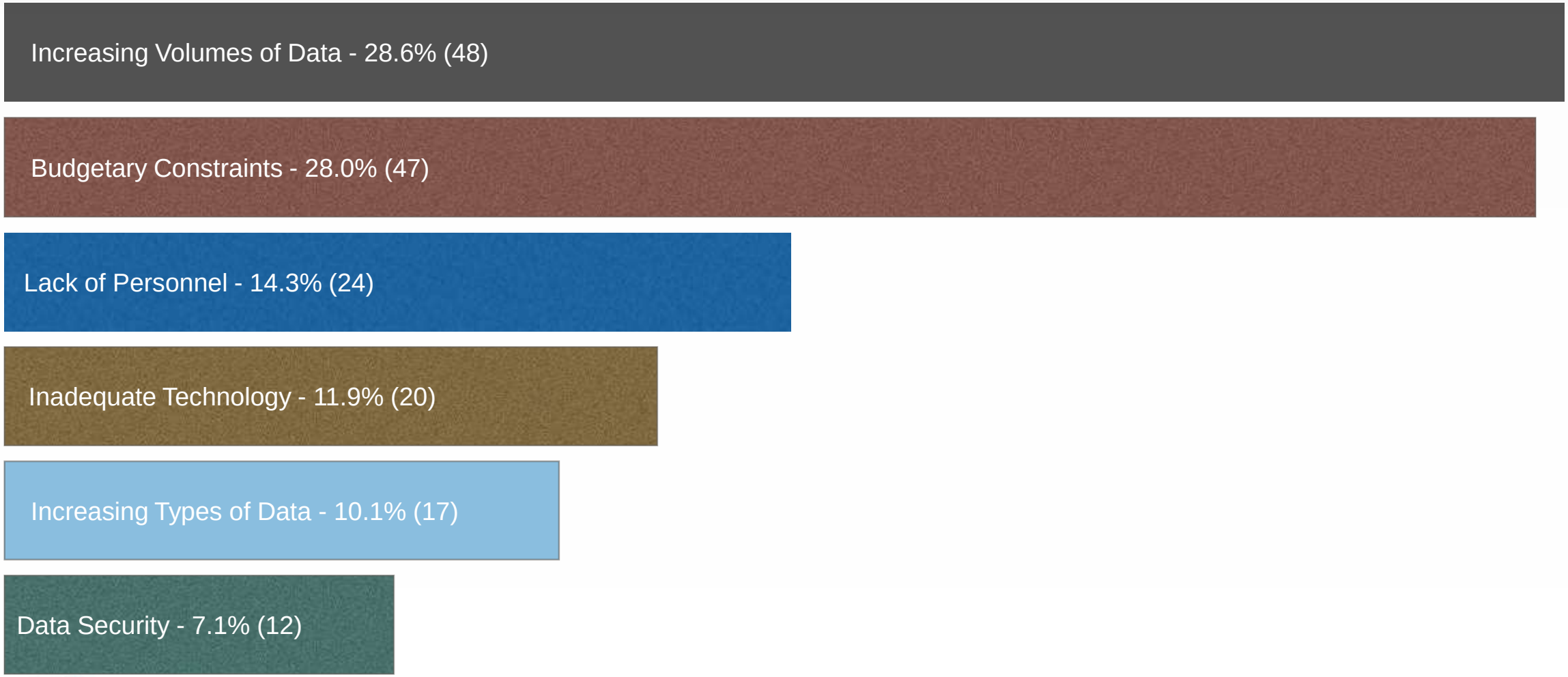
2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 **2016** 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

Evolution of eDiscovery Automation
Drivers and Disruptions

Doug Austin
Vice President, Professional Services
CloudNine

Drivers: eDiscovery Challenges

Top Challenges in Managing eDiscovery Requests



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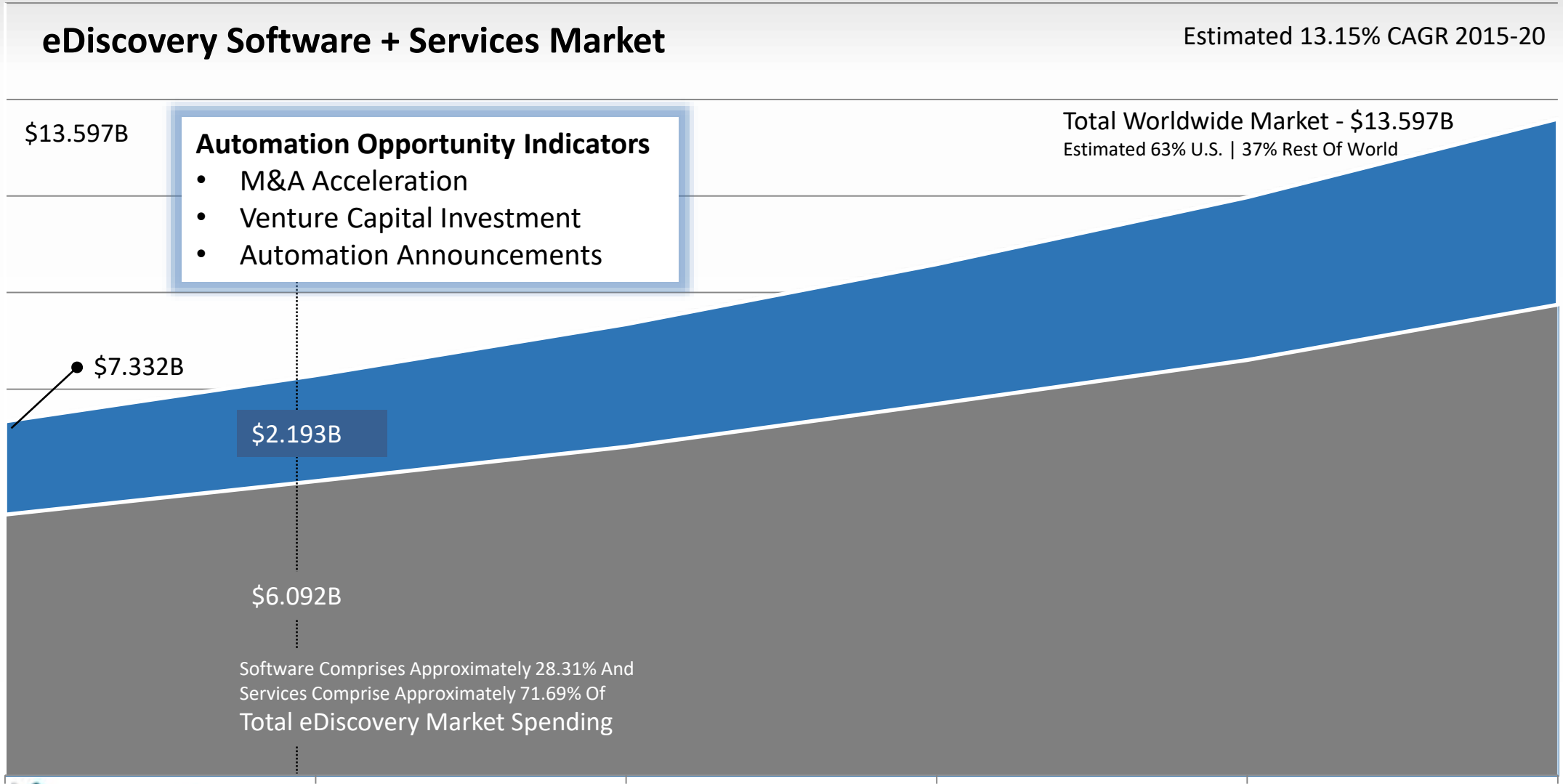
eDiscovery Business Confidence Survey - Summer 2016 ComplexDiscovery.

ACEDS

Drivers: Business Opportunity



From Review to TAR to Other Artificial Intelligence

Manual Review of Individual Documents

Technology-Assisted Review

Acceptance

Automation

Artificial Intelligence

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Following the Money – SaaS and Automation

VC Investment in eDiscovery Automation Providers

- Multi-million dollar investments in providers like Logikcull and Everlaw

Emergence of Other Automation Providers

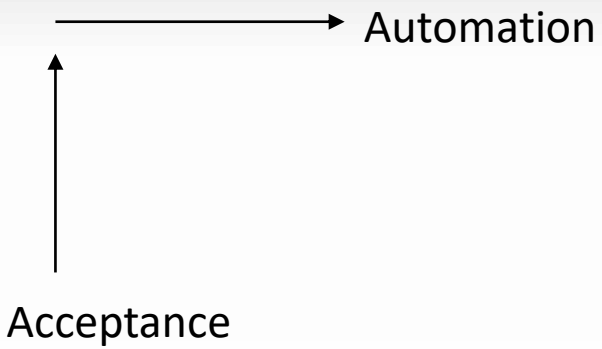
- Other providers like CloudNine also making a splash

Big Boys Taking Note

- Larger Providers like kCura, Ipro and Thomson Reuters have announced SaaS and automation initiatives

Bottom Line: Self-service automation is beginning to change the market – in a big way

A *Generational* View of eDiscovery Technology



4

- Designed for eDiscovery
- Designed for Task Integration
- **Designed for Task Automation**

3

- Designed for eDiscovery
- **Designed for Task Integration**
- No Task Automation

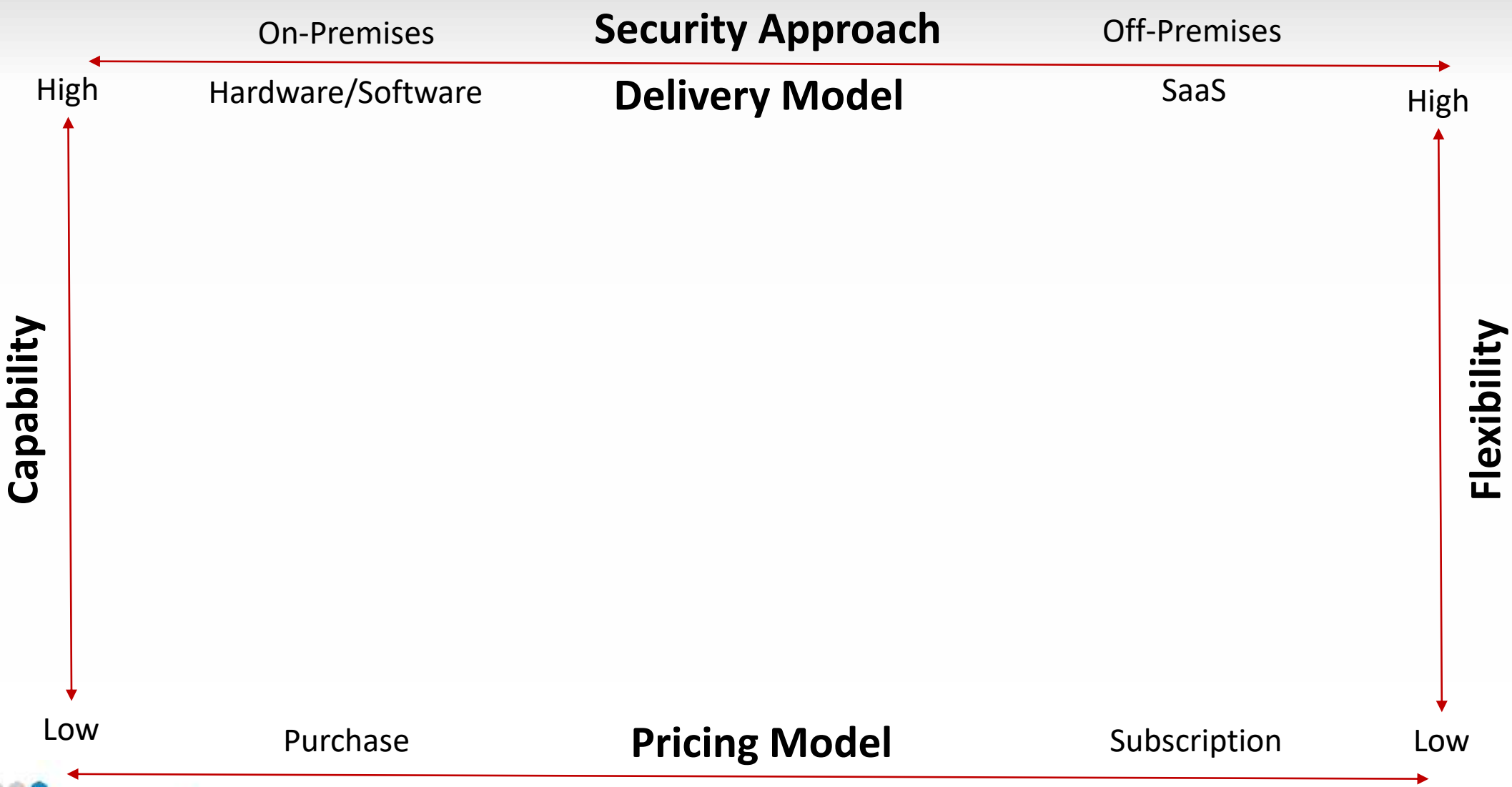
2

- **Designed for eDiscovery**
- Adapted for Task Integration
- No Task Automation

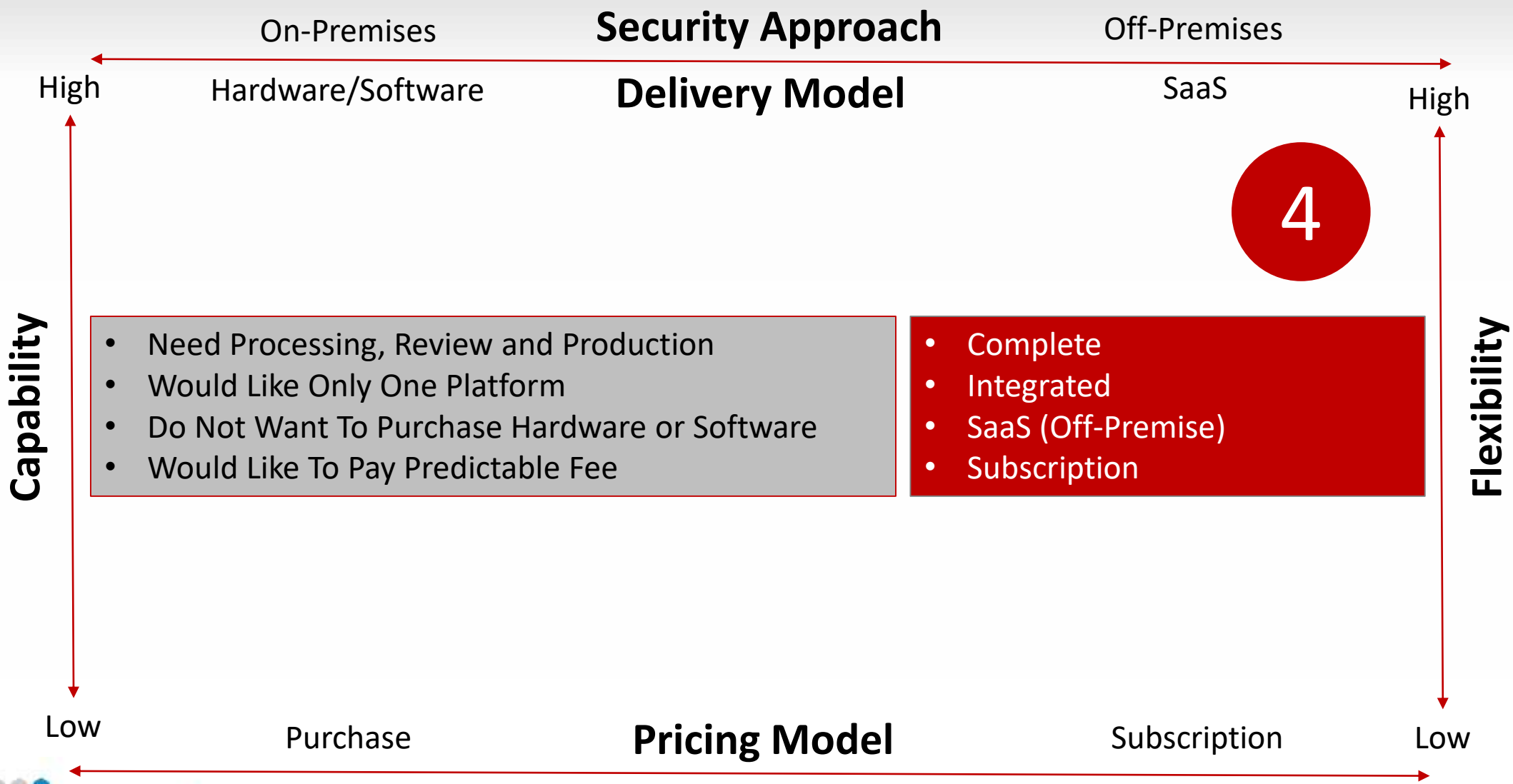
1

- **Adapted for eDiscovery**
- No Task Integration
- No Task Automation

A *Comparative* Approach to eDiscovery Tech



An *Example* Mapping Exercise



So, Is Automation Revolutionizing eDiscovery?

Disruptive Innovation – Defined

A **disruptive innovation** is an innovation that helps create a new market and value network, and eventually disrupts an existing market and value network (over a few years or decades), displacing established market leaders.

Source: **Wikipedia**

Example of a *Disruptive Innovation*

Technology Assisted Review (TAR) in E-Discovery:
Acceptance by the Bench and Bar

David Horrigan
E-Discovery Counsel and Legal Content Director
kCura

Today's Topics

- Acceptance by the Bench: **Foreshadowing in *Beyond Search***
- Acceptance by the Bench: ***Da Silva Moore v. Publicis Groupe* and Its Progeny**
- Acceptance by the Bench: **Global Landmark Cases**
- Acceptance by the Bench: ***Rio Tinto, BCA Trading,* and *Hyles***
- Acceptance by the Bar: **Initial Hesitance and Fed. R. Civ. P. 26(g)**
- Acceptance by the Bar: **Increasing Use Trends**

Technology Assisted Review (TAR) in E-Discovery:
Acceptance by the Bench and Bar


DELIVERABLES
Communiqué
andrew peck

SEARCH, FORWARD

Will manual document review and keyword searches be replaced by computer-assisted coding?

First, there was manual review — the "traditional" method of document review. As a young associate at a major New York law firm in the late 1970s, I reviewed boxes of files for relevance, "hot documents," and privilege. To gather the paper documents, you went to the client and asked where they kept files about "X" ("X" being the issue(s) involved in the lawsuit). Often there was a central file labeled "X," and employees kept their own working files as well. Occasionally, you had to go to the dreaded warehouse, where boxes might not be indexed, and working conditions always were less than ideal.

Review was linear. There was no way to deduplicate documents or organize them by types. You reviewed whatever box landed on your desk; colleagues might be reviewing a carbon copy of the same file. Hopefully, you both coded it the same. (Even today, it is not unusual for a document to be produced while another copy is on the privilege log.)

When associate billing rates became too high, firms turned to paralegals, staff attorneys, or contract attorneys. Whether this had any effect on the quality of the review was beside the point; economics drove the change.

Despite its flaws, many senior lawyers (and some clients) still consider manual review to be the "gold standard" against which other review techniques are compared. While the volume of electronically stored information (and concomitant expense) has largely eliminated manual review as the sole method of document review, manual review remains used along with, for example, keyword screening. Let us consider whether manual review as the gold standard is myth or reality.

Two recent research studies clearly demonstrate that computerized searches are at least as accurate, if not more so, than manual review. Herb Roitblatt, Ann Kershaw, and Patrick Oot, of the Electronic Discovery Institute, con-

www.lawtechnologynews.com LTN | October 2011 | 25

-

Judge Peck on Linear and Keyword Review in *Search, Forward*

- **The volume of ESI has made full manual review virtually impossible.**
- **Lawyers are used to doing keyword searches in "clean" databases, such as Lexis and Westlaw, but email collections are not "clean" databases.**
- **The 1985 Blair and Maron Study on Keywords and 20% Recall**
- **A Legal History of Keyword Critiques:**
  - ***O'Keefe* (D.D.C. 2008, Judge Facciola)**
  - ***Equity Analytics* (D.D.C. 2008, Judge Facciola)**
  - ***Victor Stanley* (D. Md. 2008, Judge Grimm)**
  - ***William A. Gross Construction* (S.D.N.Y. 2009, Judge Peck)**

"This opinion should serve as a wake-up call to the Bar in this District about the need for careful thought, quality control, testing, and cooperation with opposing counsel in designing search terms or 'keywords' to be used to produce emails or other electronically stored information ('ESI')."

-Judge Peck in *William A. Gross Construction*

Technology Assisted Review (TAR) in E-Discovery:
Acceptance by the Bench and Bar


DELIVERABLES
Communiqué
andrew peck

SEARCH, FORWARD

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Judge Peck on Computer-Assisted Review in *Search, Forward*

- **A Bit of Foreshadowing:** **"To my knowledge, no reported case (federal or state) has ruled on the use of computer-assisted coding."**

- **On Computer Assisted Review v. Keywords:** **Judicial decisions, including *Victor Stanley, O'Keefe* and *Gross*, are highly critical of the keywords used by the parties. These decisions did not "endorse" or "approve" of keyword searching. Nevertheless, lawyers seem to believe that the judiciary has signed off on keywords, but has not on computer-assisted coding."**

- **"I do not think *Daubert* applies – it applies when an expert will testify at trial to admit into evidence opinions or results (e.g., the result of DNA testing reveals a match). Here, the hundred of thousands of e-mails produced are not being offered into evidence at trial as the result of a scientific process. Rather, whether the handful of e-mails offered as trial exhibits is admissible is dependent on the document itself (e.g., whether it is a party admission or a business record), not how it was found in discovery."**

- **On Different Types of Computer-Assisted Review and the "Black Box":** **"If the use of predictive coding is challenged before me, I will want to know what was done and why that produced defensible results. I may be less interested in the science behind the "black box" of the vendor's software than in whether it produced responsive documents with reasonably high recall and high precision."**

Technology Assisted Review (TAR) in E-Discovery:
Acceptance by the Bench and Bar

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

MONIQUE DA SILVA MOORE, et al.,

Plaintiffs,

-against-

PUBLICIS GROUPE & MSL GROUP,

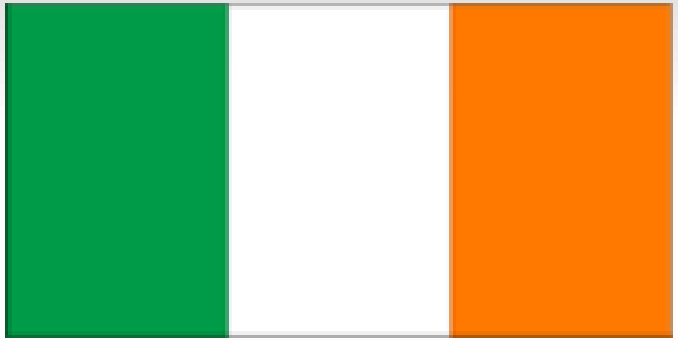
Defendants.

11 Civ. 1279 (ALC) (AJP)

OPINION AND ORDER

"This judicial opinion now recognizes that computer-assisted review is an acceptable way to search for relevant ESI in appropriate cases."

--Judge Peck in *Da Silva Moore*


Global Landmark Cases

United States: *Da Silva Moore v. Publicis Groupe*

Ireland: *Irish Bank Resolution Corp. & Ors. v. Quinn & Ors.*

United Kingdom: *Pyrrho Investments Ltd. v. MWB Property Ltd.*

Acceptance and Limits by the Bench

Rio Tinto v. Vale

Brown v. BCA Trading

Hyles v. City of New York

Technology Assisted Review (TAR) in E-Discovery:
Acceptance by the Bench and Bar

- Norton Rose Fulbright Data
- kCura-Bloomberg Data
- Judge Peck: “Far more lawyers use TAR than just the 20-30 reported cases—they just aren’t suing each other.”

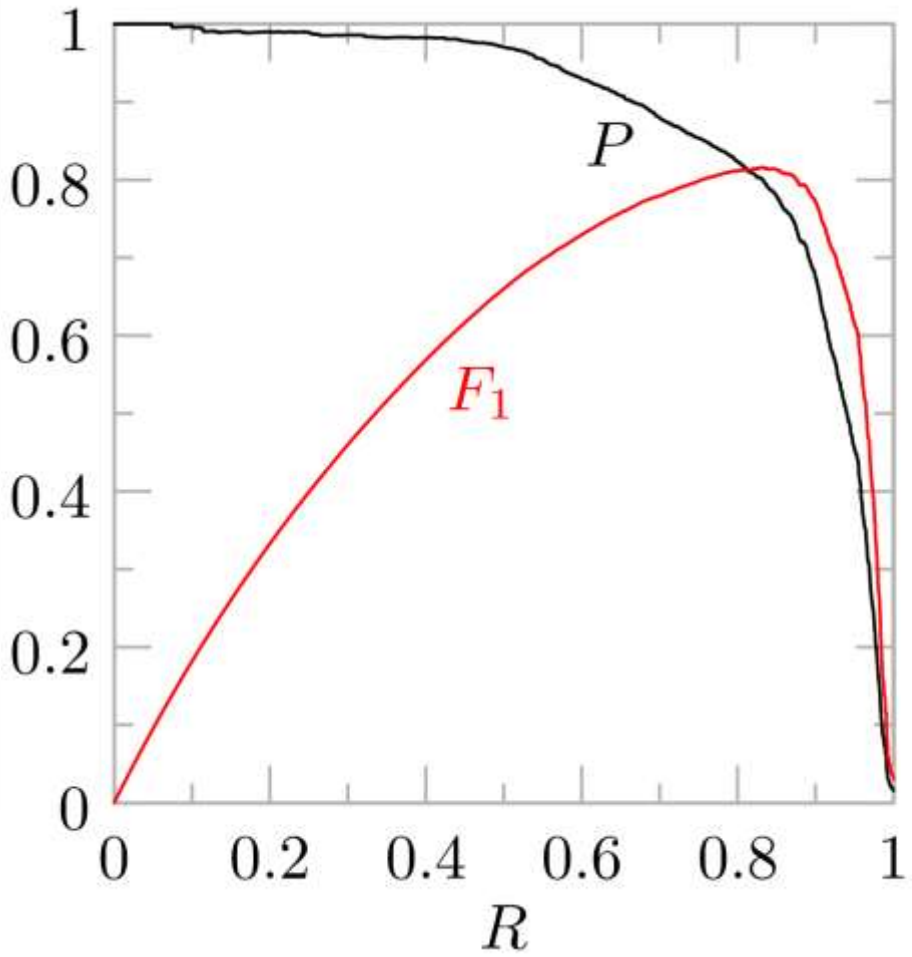
Improving TAR Technologies
What We've Learned

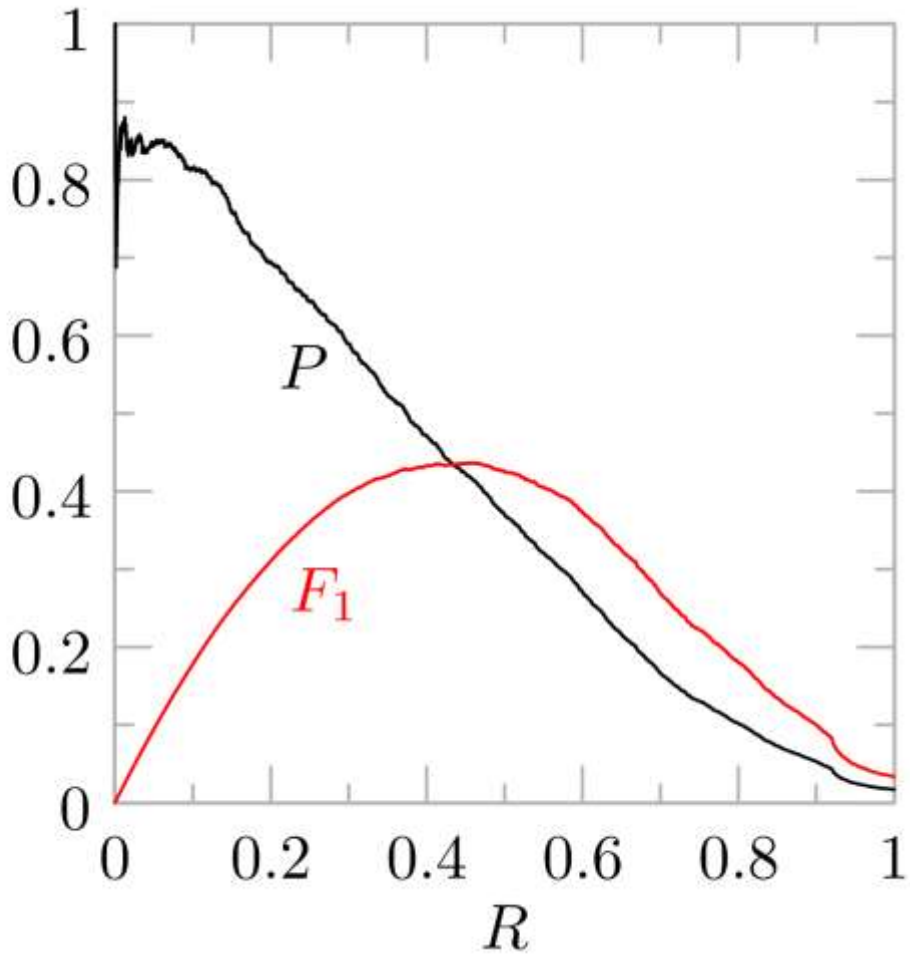
Bill Dimm
Founder and CEO
Hot Neuron

Estimating Recall

- Direct Recall
- Bad Ideas
  - Basic Ratio Method
  - Global Method
  - eRecall
  - ei-Recall

F_1 Score





Research

- TREC Legal Track 2006-2011
- EDI / Oracle Study 2013
- TREC Total Recall 2015-

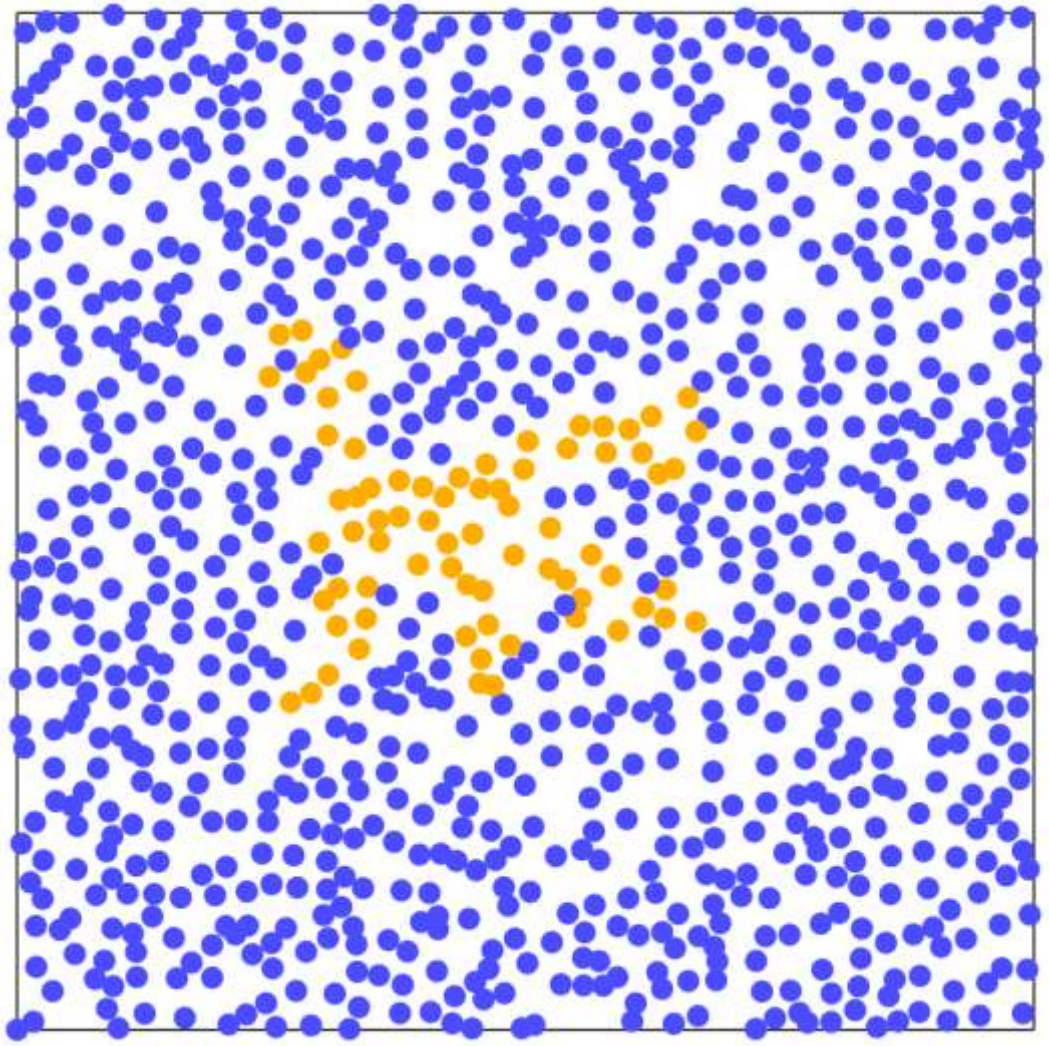
EDI / Oracle

Provider	Project Cost	Resp. F1	Priv. F1	Hot F1	Per Doc Cost
Tech 01	$ 248,851.02	4	3	2	$ 0.15
Tech 02	$ 184,290.00	11	8	1	$ 0.11
Tech 03	$ 1,501,655.00	8	11	4	$ 0.89
Tech 04	$ 50,725.00	16	7	16	$ 0.03
Tech 05	$191,671.25	15	2	12	$ 0.11
Tech 06	$ 145,753.66	13	17	15	$ 0.09
Tech 07	$ 346,880.00	19	18	18	$ 0.20
Tech 08	$ 467,380.00	2	5	10	$ 0.28
Tech 09	$ 498,809.14	18	19	11	$ 0.29
Tech 10	$ 45,982.80	5	9	3	$ 0.03
Tech 11	$ 93,035.43	9	4	17	$ 0.05
Tech 12	$ 259,032.69	17	6	14	$ 0.15
Tech 13	$ 209,284.22	6	16	9	$ 0.12
Tech 14	$ 100,000.00	3	15	6	$ 0.06
Tech 15	$ 267,080.83	12	14	18	$ 0.16
Tech 16	$ 158,108.15	14	12	13	$ 0.09
Tech 17	$ 45,982.80	7	10	5	$ 0.03
Tech 18	$ 84,200.00	10	13	7	$ 0.05
Tech 19	$ 117,315.00	1	1	8	$ 0.07

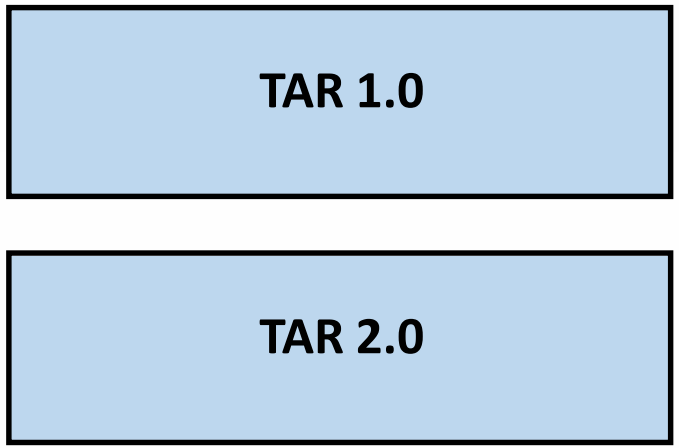
Pre-Culling with Keyword Search

- Biomet lost 40%

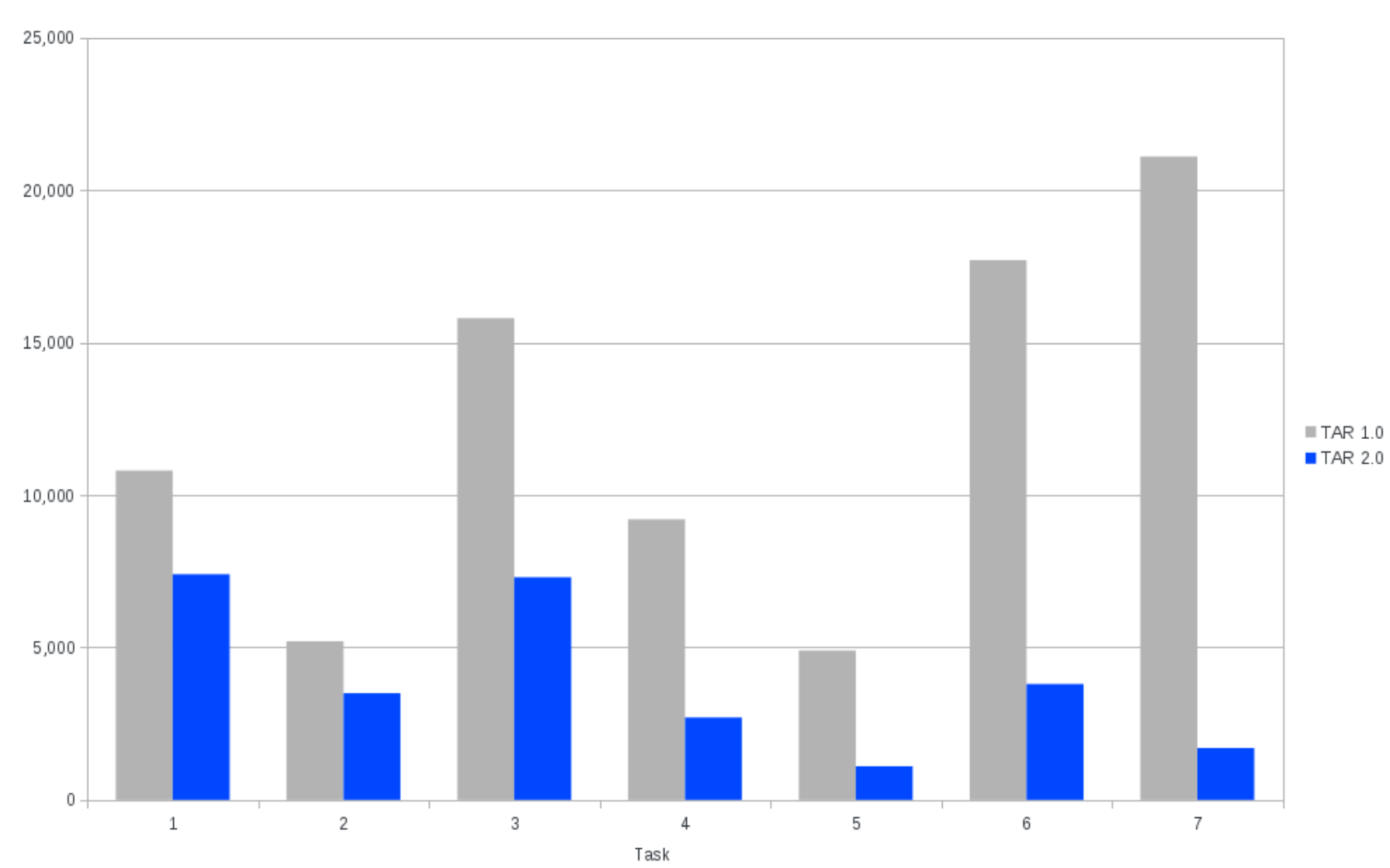
TAR Workflows – Toy Example



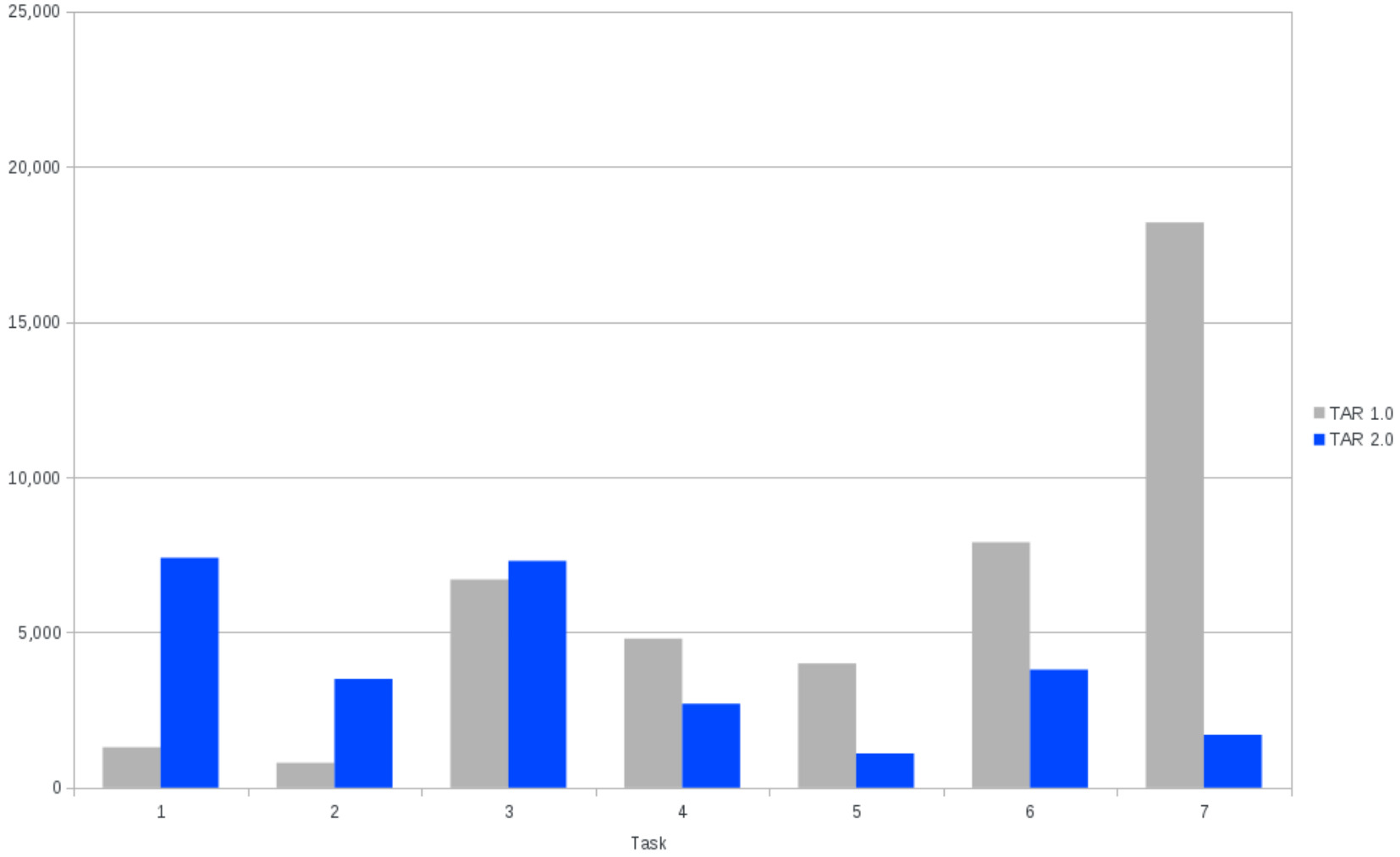
TAR Workflows: TAR 1.0 & 2.0



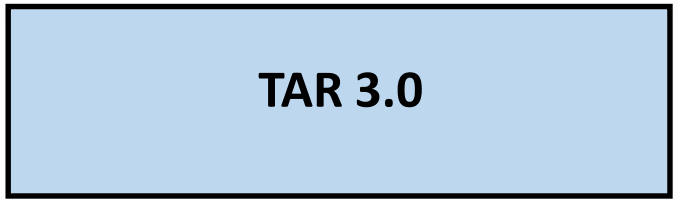
Review Required (All Candidates Reviewed)



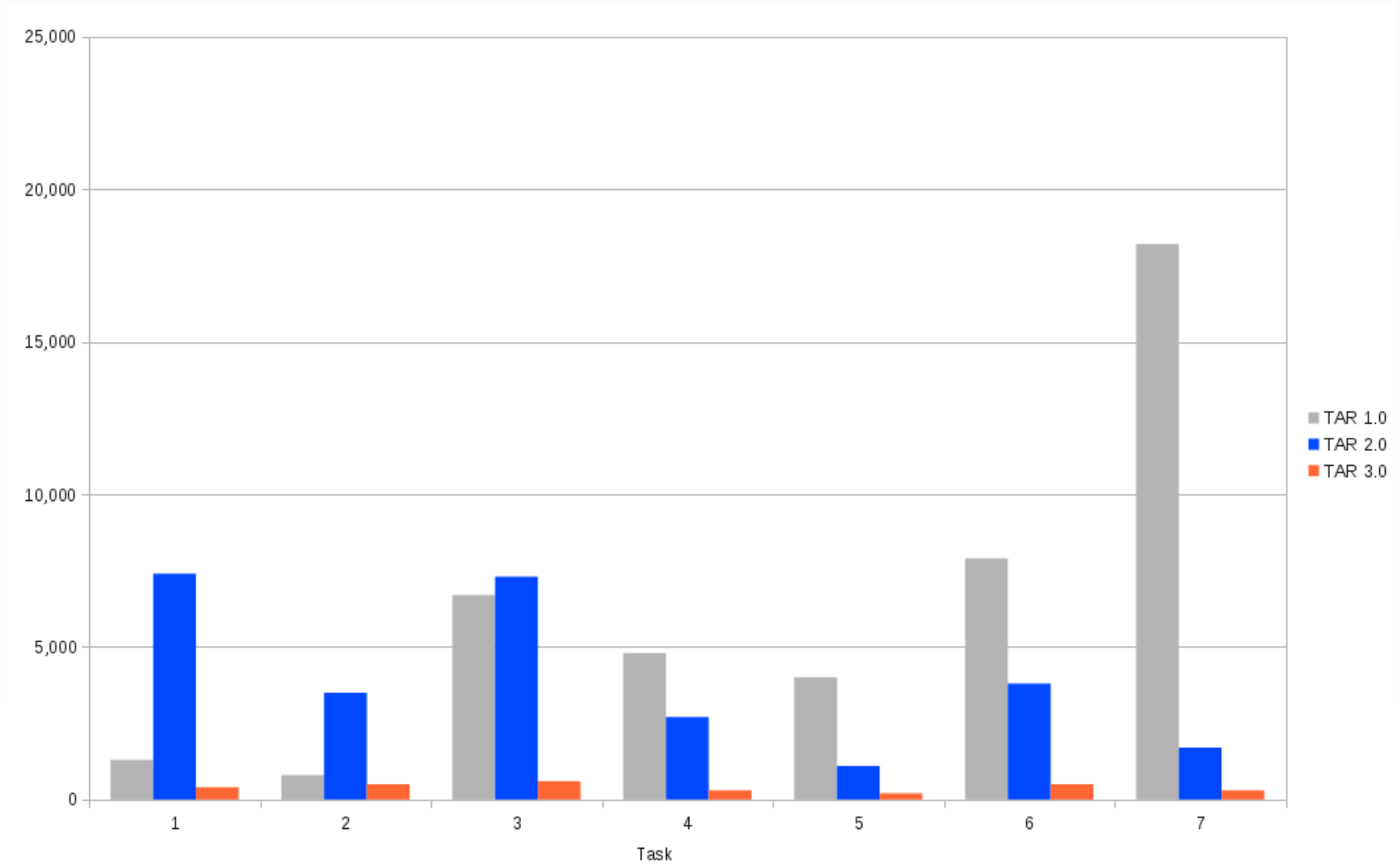
Review Required (Candidates NOT Reviewed)



TAR Workflows: TAR 3.0



Review Required (Candidates NOT Reviewed)



The Promise of TAR
And The Practice of TAR

Bill Speros

Attorney Consulting in Evidence Management

speros@speros.net

The Promise of TAR Is Promising
And The Practice of TAR Needs Practice

Bill Speros

Attorney Consulting in Evidence Management

speros@speros.net

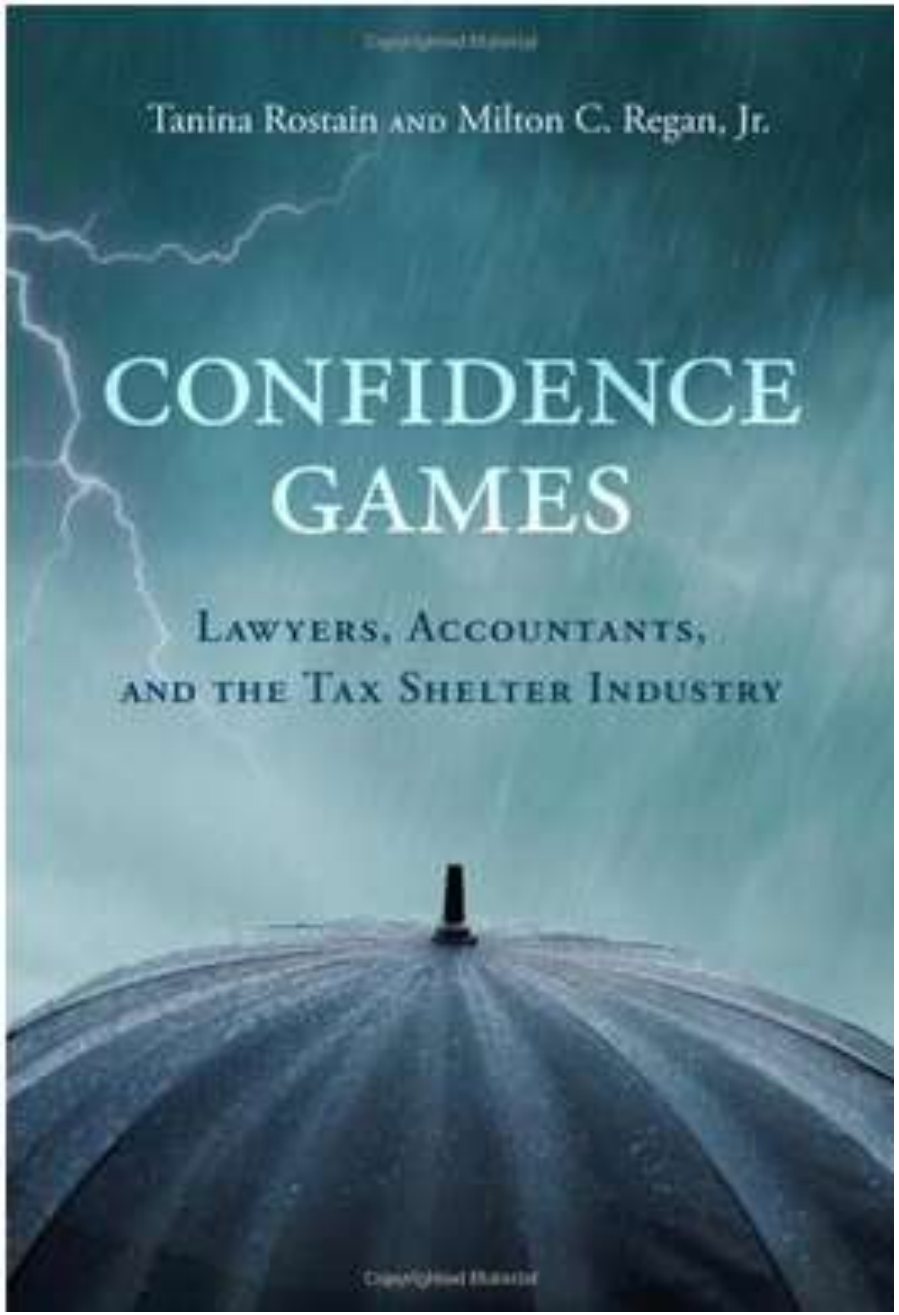
The Promise of TAR* Is Promising
And The Practice of TAR Needs Practice

* “TAR” Technology Assisted Review’s employing Artificial Intelligence (esp. Machine Learning / Cognitive Expert Advisor)

The Promise of TAR* Is Promising And The Practice of TAR Needs Practice

10 Years Forward and Back	E-Discovery Day 2.0	Webcast
Inverts duties: Now duty to prove important (unknown) documents were not produced	**Rule 37(e): Less Sanctions, More Negotiating**	3:00 PM ET

* "TAR" Technology Assisted Review's employing Artificial Intelligence (esp. Machine Learning / Cognitive Expert Advisor)



1. How can they catch us?
2. How can they prove anything?
3. If we get caught and prove bad acts, then what?
   A) Back taxes?
   B) Plus Interest?
   C) Plus Penalty?
   D) Plus Jail?

Eric P. Mandel: eric@indiciumlaw.com

The Promise of TAR* Is Promising And The Practice of TAR Needs Practice

10 Years Forward and Back	E-Discovery Day 2.0	Webcast
Inverts duties: Now duty to prove important (unknown) documents were not produced	**Rule 37(e): Less Sanctions, More Negotiating**	3:00 PM ET
Perfects the advantage of asymmetric knowledge: Asking too much is disproportionate (inviting cost shifting); Asking too vague is not cooperating (inviting key-word "go fish")	**Rule 26(b)(1): How to Make a Persuasive Proportionality Argument**	12:30 PM ET

* "TAR" Technology Assisted Review's employing Artificial Intelligence (esp. Machine Learning / Cognitive Expert Advisor)

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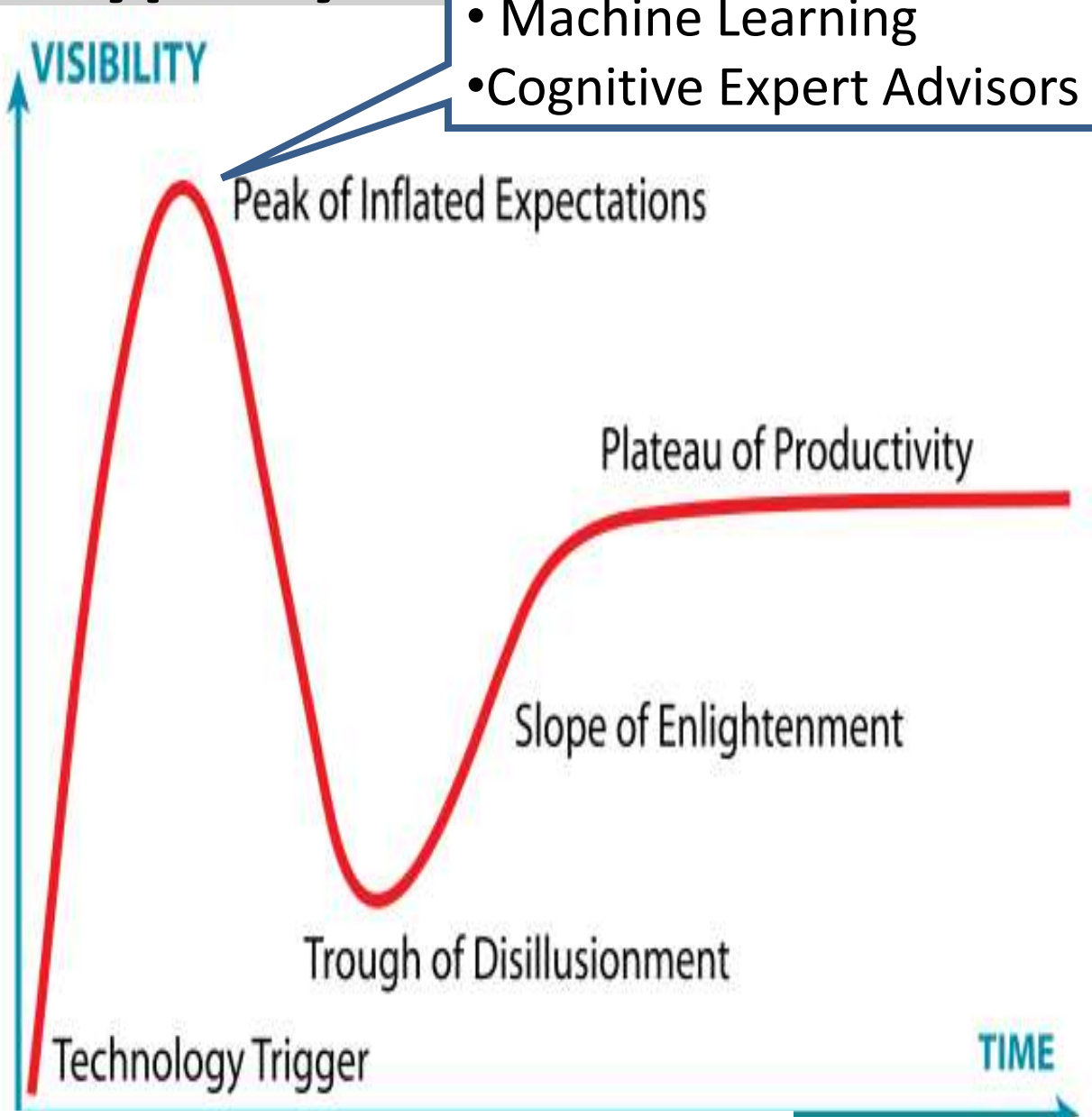
The Practice of TAR Needs Practice

	Daubert / FRE 702	"Substantially Justified" (Reasonable, Good Faith)
Standard	Objective via Qualified Experts	Subjective via Industry Norms
	"Who says so?"	"Good enough" is "good faith"
Initial Burden on	Producing	Requesting

Gartner Group Hype Cycle

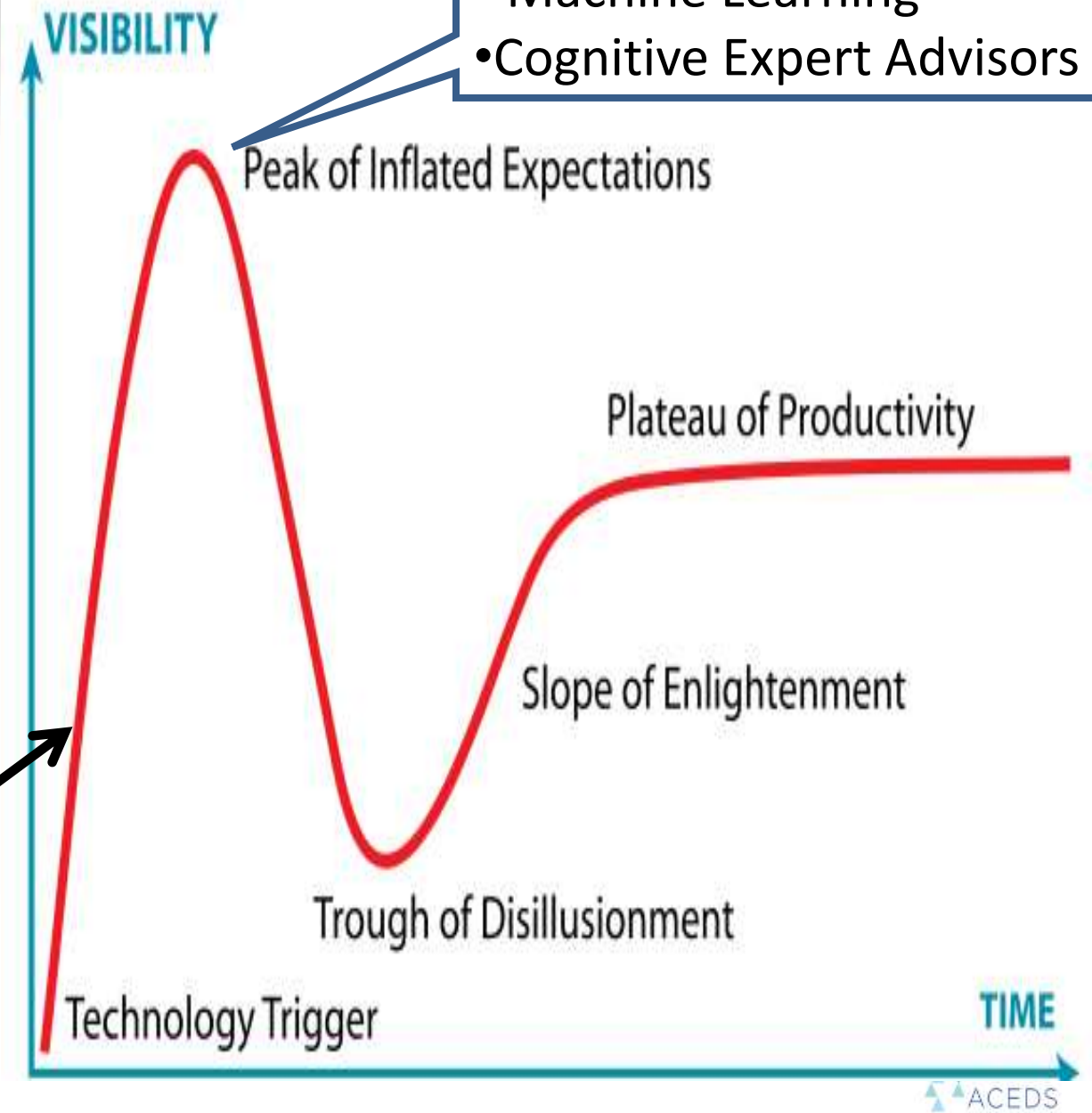
- Machine Learning
- Cognitive Expert Advisors



Gartner Group (August, 2016): http://www.gartner.com/technology/research/hype-cycles/

Gartner Group Hype Cycle

- Machine Learning
- Cognitive Expert Advisors



2012	*Da Silva Moore*	"TAR can (and does) yield more accurate results…at much lower cost" vs "exhaustive manual review"
2011	JOLT	

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Gartner Group Hype Cycle

2016	Hyles	TAR with continuous active learning ("CAL") is "the best and most efficient search tool" but is not required
2012	*Da Silva Moore*	"TAR can (and does) yield more accurate results…at much lower cost" vs "exhaustive manual review"
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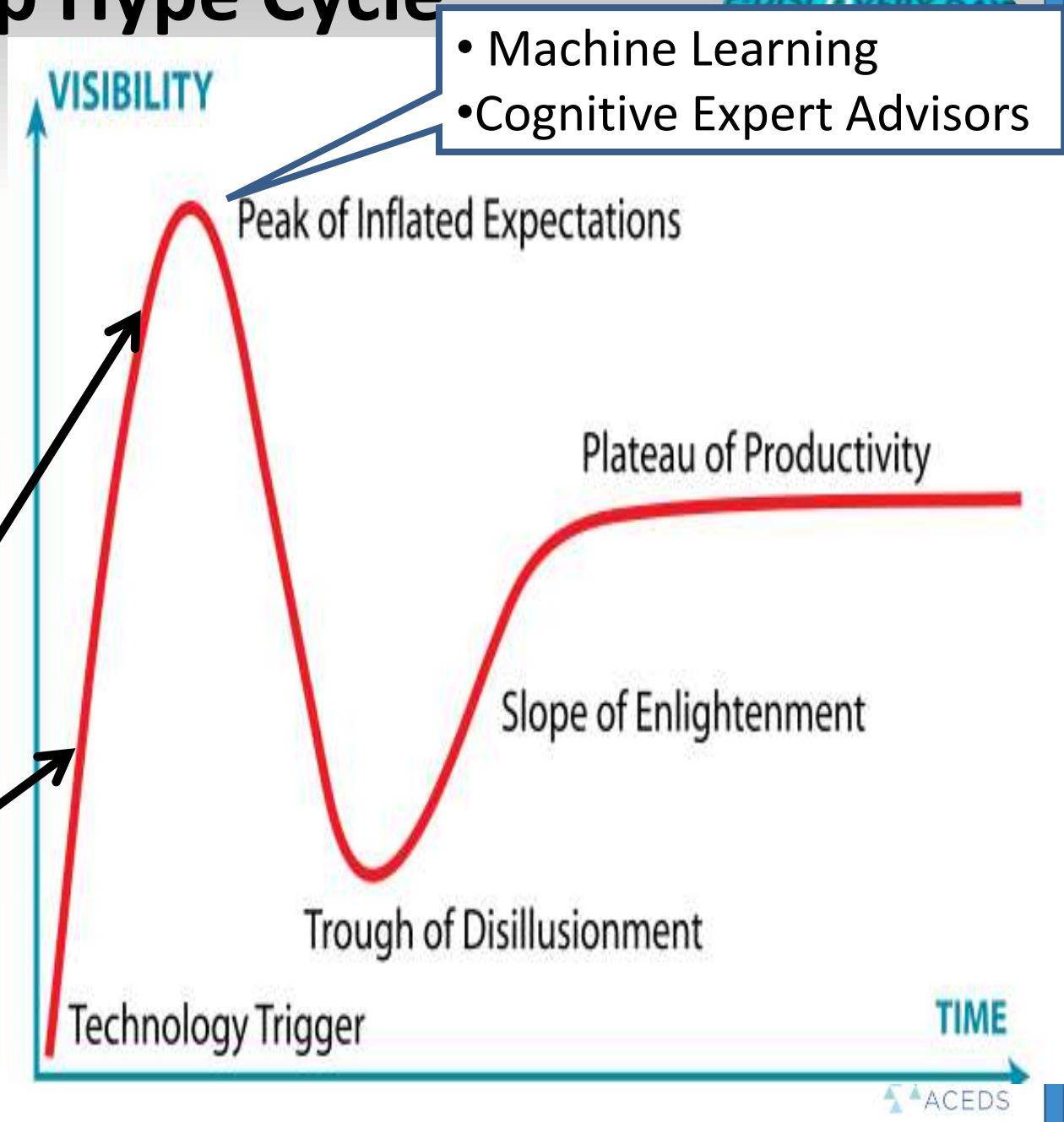

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Gartner Group Hype Cycle

2016	*Daily Bus. Review* Interview re EDI & Oracle Nov 2016	"It's a combination of the technology, the people involved and the workflow process."
	Hyles	TAR with continuous active learning ("CAL") is "the best and most efficient search tool" but is not required
2012	*Da Silva Moore*	"TAR can (and does) yield more accurate results…at much lower cost" vs "exhaustive manual review"
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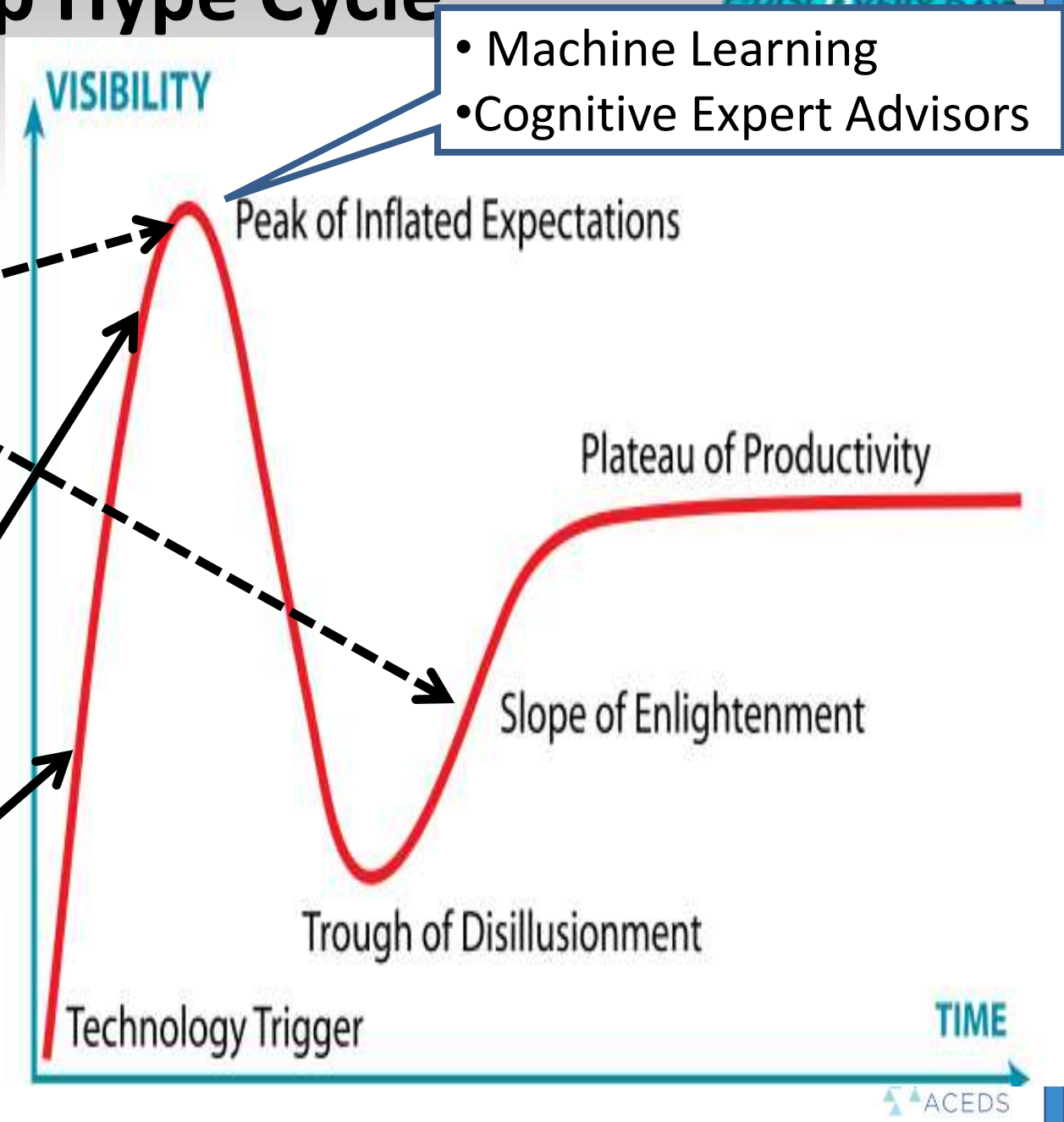

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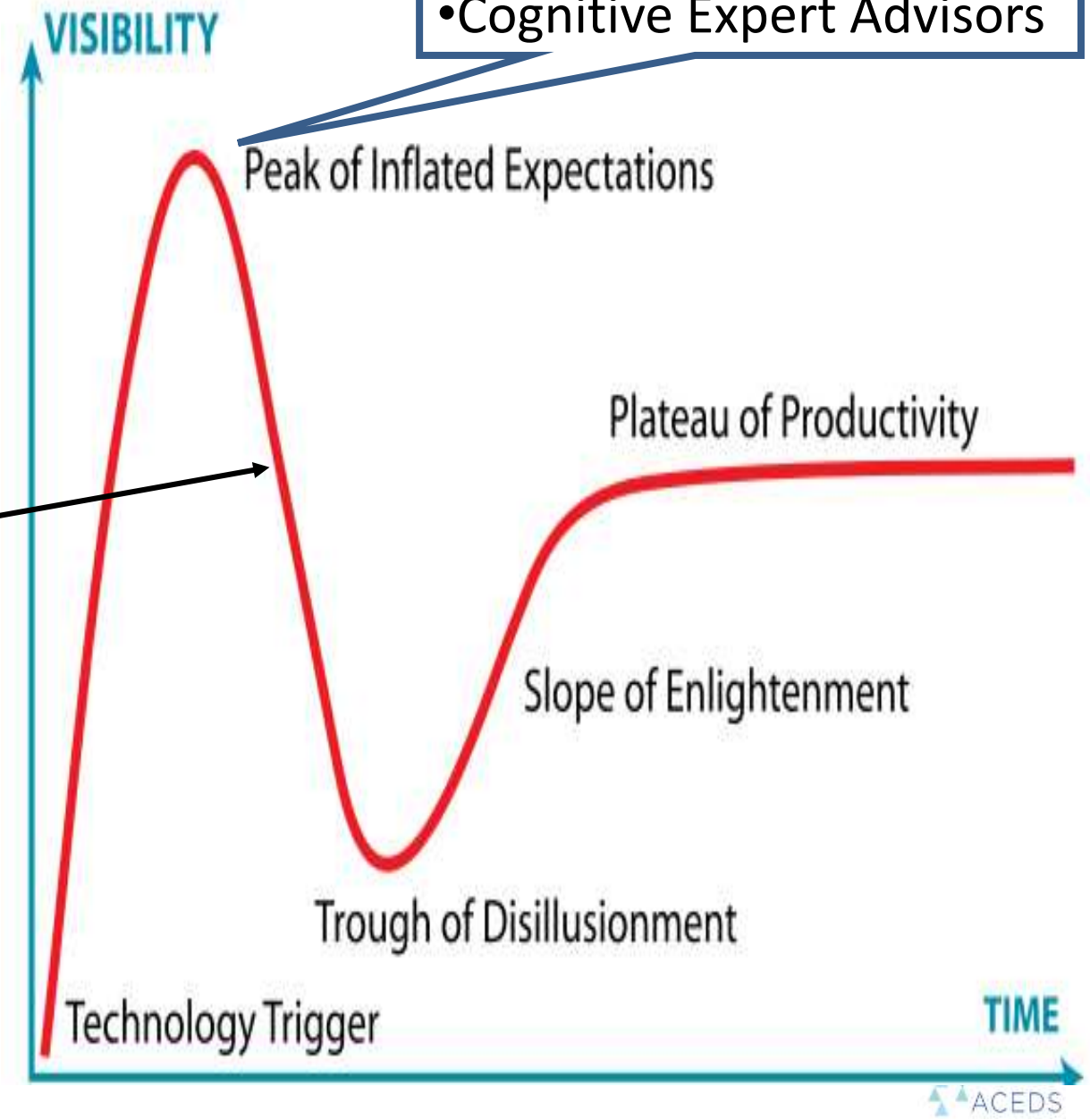
Gartner Group Hype Cycl

- Machine Learning
- Cognitive Expert Advisors

(Various)

Assessments of Natural Language (Full Text) Related Machine Learning Matching Limited Specimens to Modest-sized Corpus

Other Industries'
AI Experts



What If Producing Party Who Employed TAR Fails to Produce Responsive and Important Documents?

Validity of TAR's Foundation and Application (Selected Variables That Effect Performance)

- **Capabilities**
  - **Topics** (tangible vs ephemeral; count; similarities)
  - **Tone** (formality vs colloquial, jargon; associations "friendships"
- **Operating Requirements**
  - **User capabilities** (content, coding implications, topics)
  - **Workflow** (pursuit, sequencing, coordination/feedback)
- **Limitations**
  - **Full-text format**
  - **Agility** (nimbleness vs adamancy)
  - **Resiliency** (inconsistency)
  - **Sensitivity** to few specimens and corpus members
  - **Aggregating Relevant Topics**

Implications of Aggregating Relevant Topics

1:Indifferent
2:Unaware
3:Problematic Validation

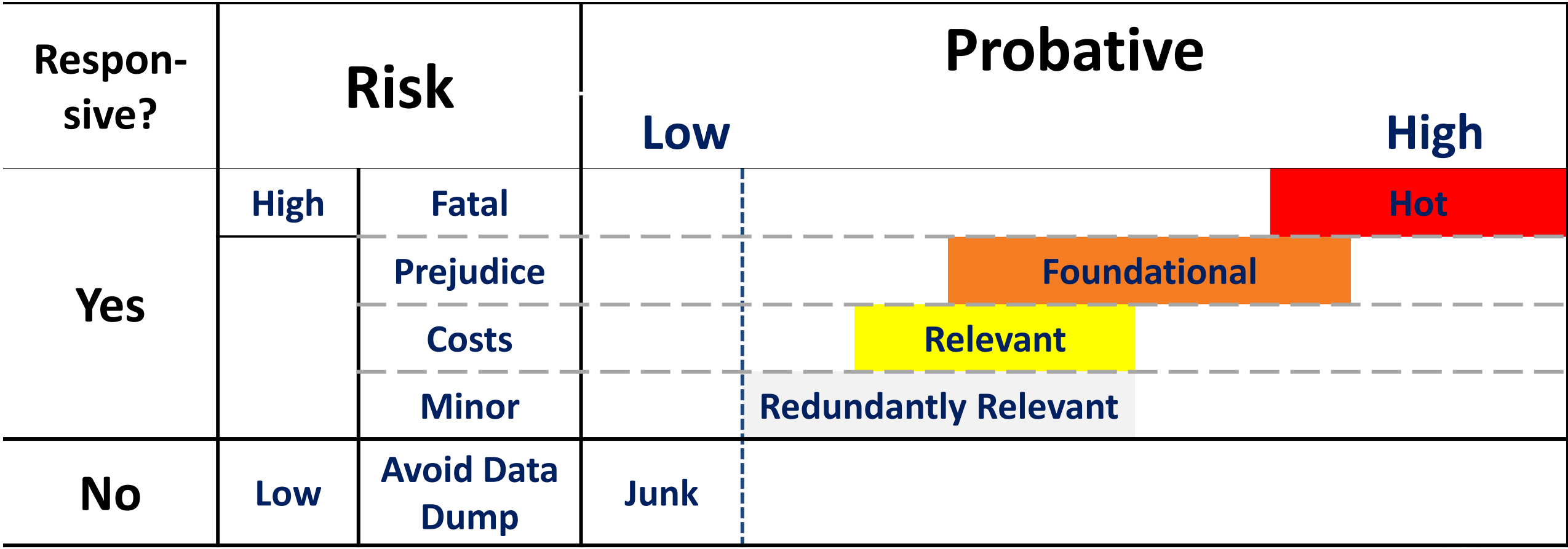
Implications of Aggregating Relevant Topics

Indifference to Relative Importance

Respon-sive?	Risk		Probative	
			Low	High
Yes				
No	Low	Avoid Data Dump	Junk	

Implications of Aggregating Relevant Topics

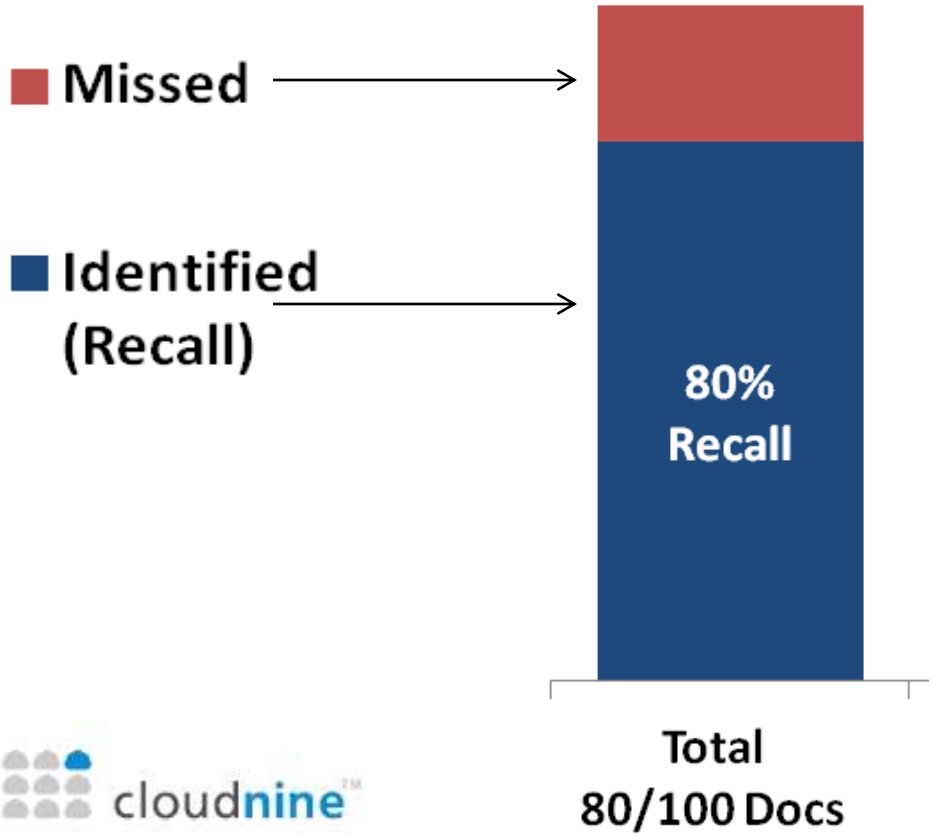
Indifference to Relative Importance



Implications of Aggregating Relevant Topics

Unaware of Various Topics

Aggregate



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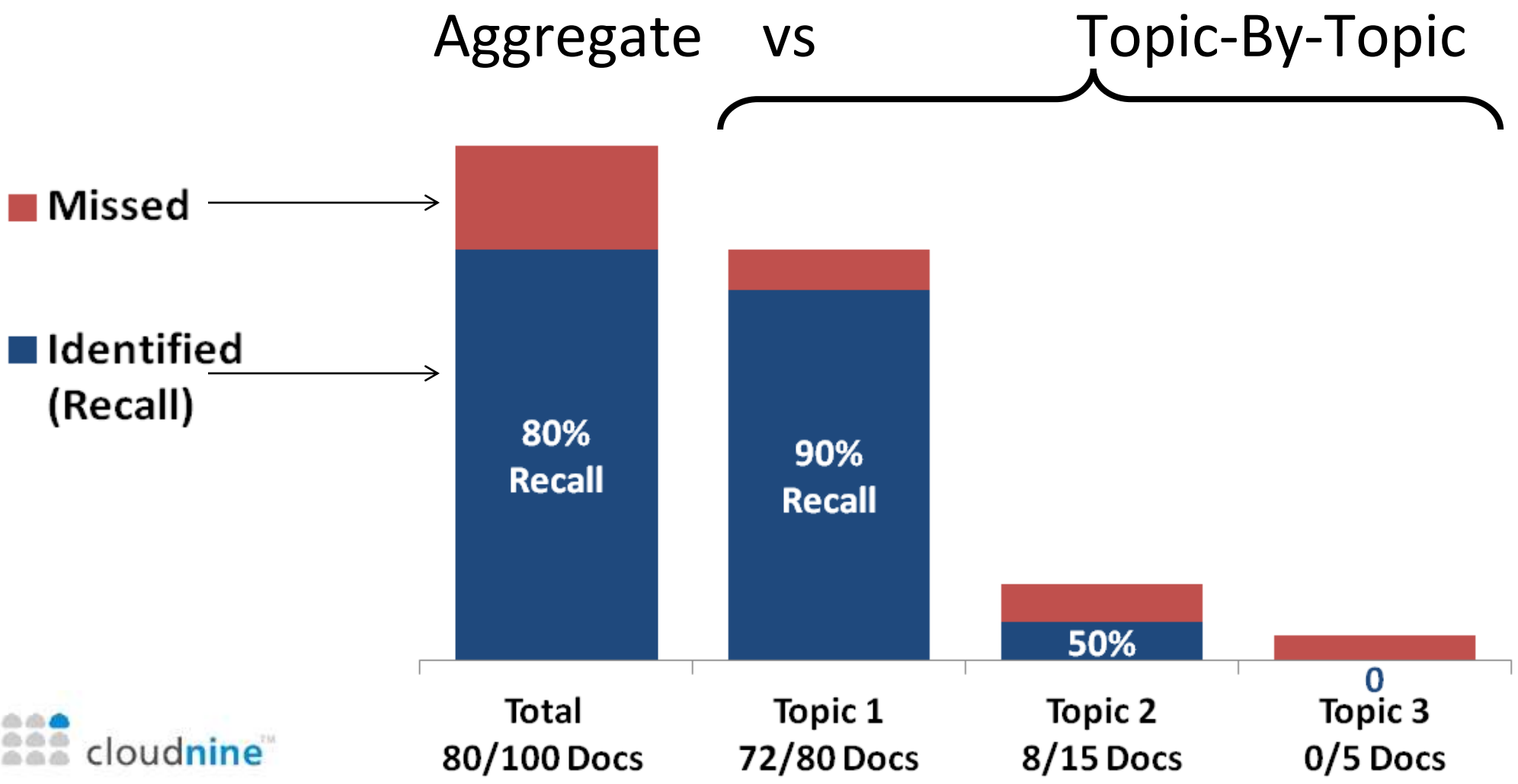
Implications of Aggregating Relevant Topics

Unaware of Various Topics



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Implications of Aggregating Relevant Topics

Problematic Validation for Topics in Uncommon Docs

Aggregate

Estimated Prevalence: 10% 8% 1.5% .5%

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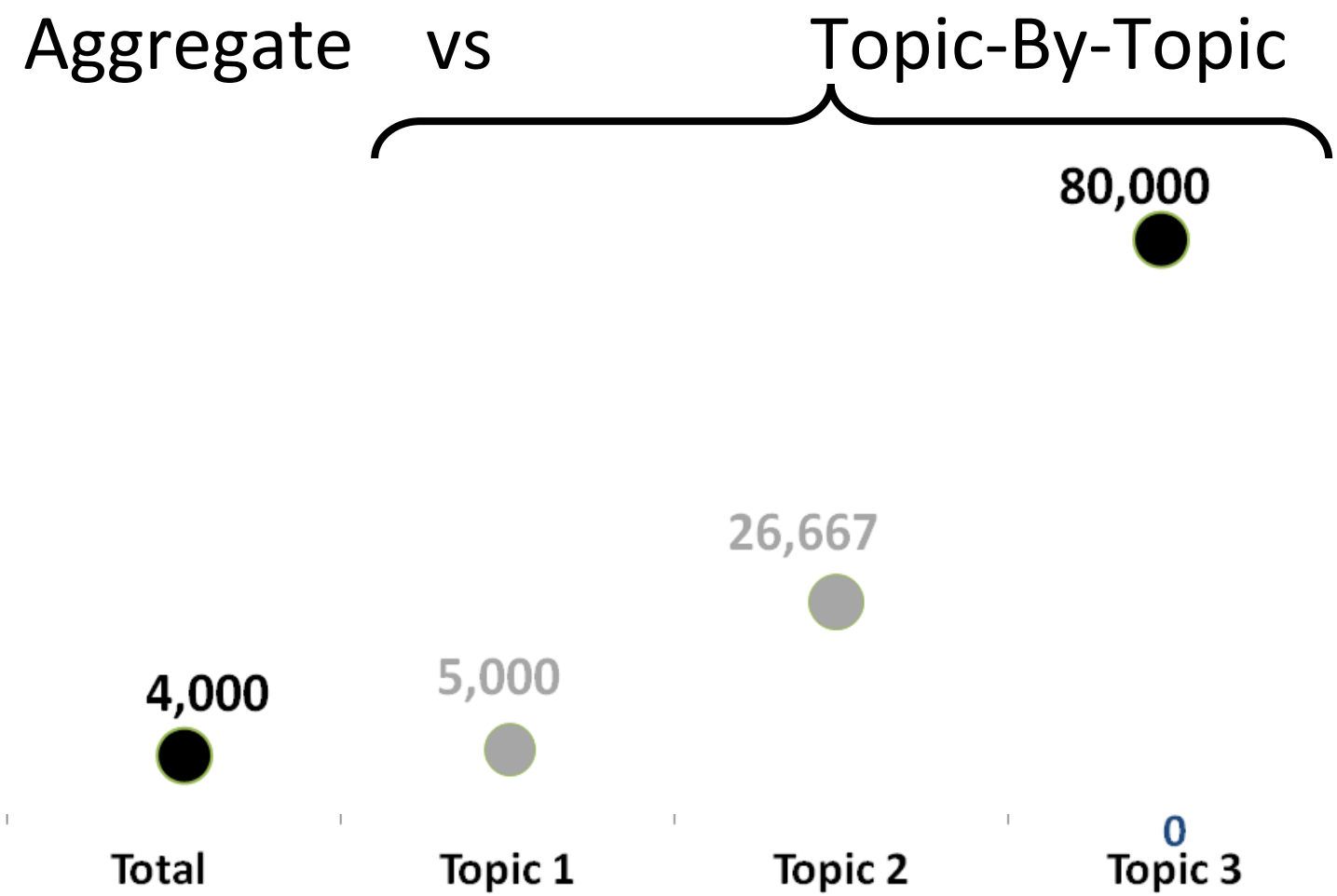
Implications of Aggregating Relevant Topics

Problematic Validation for Topics in Uncommon Docs



Estimated Prevalence: 10% 8% 1.5% .5%

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Implications of Aggregating Relevant Topics

1:Indifferent	Different Relative Importance	Values duplicative docs same as important (“hot”) docs
2:Unaware	Different Topics (Issues)	High performance re easy topics hides low re others
3:Problematic Validation	Topics Expressed in Uncommon Documents	Normal Sample sizes too small for individual topics

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Validity of TAR's Foundation and Application (Selected Variables That Effect Performance)

- **Capabilities**
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TAR Fails to Produce Responsive, Important Docs.

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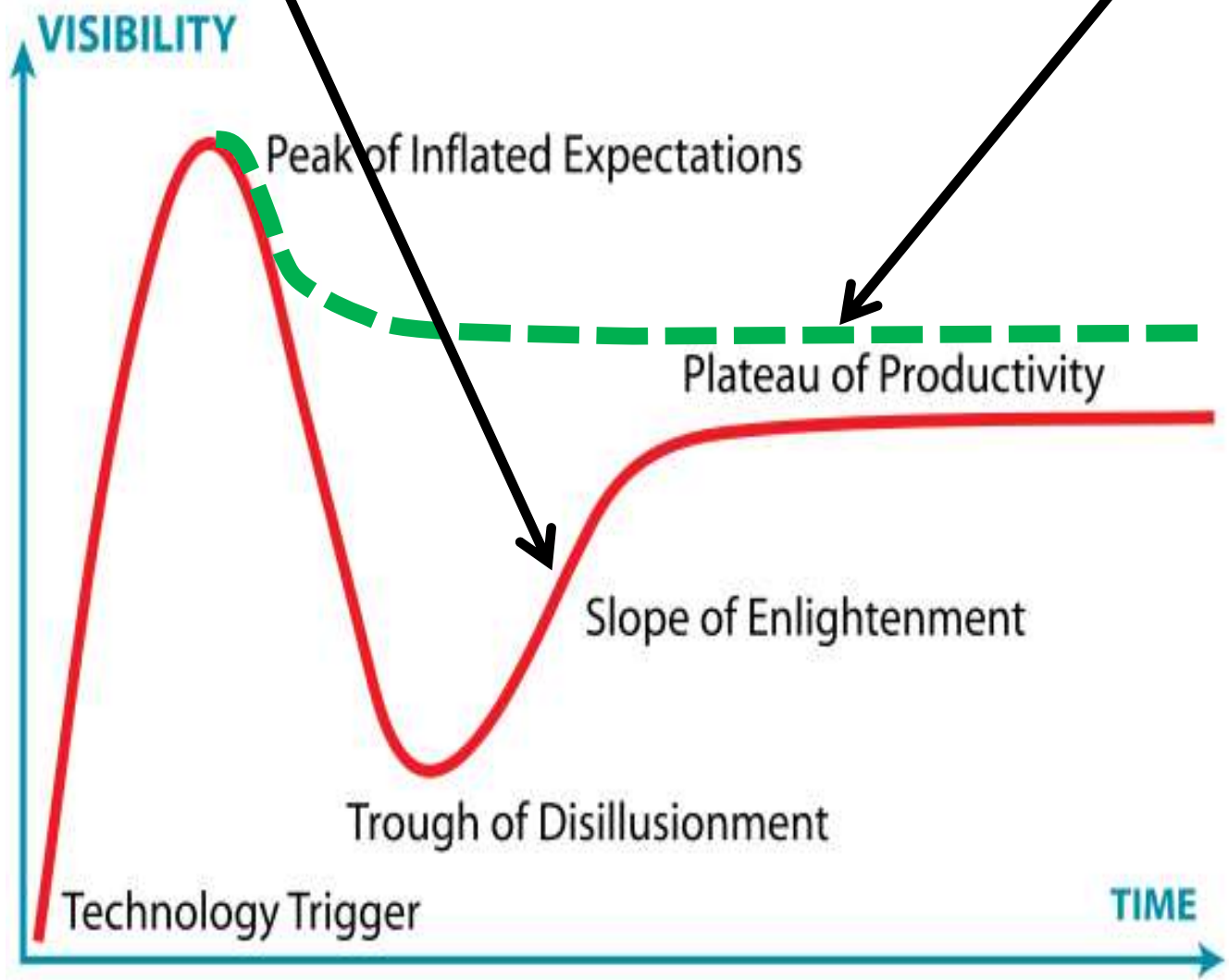
Standard		
Initial Burden		
Valid Foundation		
Valid Application		



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The Promise of TAR* Is Promising
And The Practice of TAR Needs Practice

Questions & Answers

The Future of eDiscovery
Closing Comments

Resources

- The Sedona Conference Commentary on Defense of Process Public Comment Version September 2016, September 2016
- David Horrigan, *Judge Peck, TAR, and Cooperation in Hyles v. New York City*, ***THE RELATIVITY BLOG***, August 2, 2016.
- *TREC 2016 Total Recall Track*, ***Programming Languages Group, University of Waterloo***, May 2016
- David Horrigan, *Case Law Update: The UK Joins the US and Ireland in Approving TAR*, ***THE RELATIVITY BLOG***, February 17, 2016.
- *TAR 3.0 Performance*, ***Clustify Blog***, *January 28, 2016*
- *Welcome to 2016! The Age of eDiscovery Automation is Upon Us!: eDiscovery Trends*, ***eDiscovery Daily***, January 4, 2016
- *Reconsidering Dr. Cormack's "Considered Response",* Bill Speros, August 17, 2016

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- *Considering Fourth Generation eDiscovery Technology Offerings: Two Approaches*, Part One and Part Two, ***Complex Discovery***, January 8, 2016
- *eRecall: No Free Lunch*, ***Clustify Blog***, *September 8, 2014*
- *Is Automation What's Next (and What's Necessary) for E-discovery?*, ***Legaltech News***, March 23, 2016
- David Horrigan, *Tech is Litigants' Boon, Not Profession's Doom: Assisted Review is Merely One Way for Attorneys to Find their Way Through Mountains of Evidence*, ***THE NATIONAL LAW JOURNAL***, Sept. 1, 2014.
- *Not Only is the Age of eDiscovery Automation Upon Us, But So is the Age of Cloud-Based eDiscovery*: eDiscovery Trends, ***eDiscovery Daily***, January 8, 2016
- *Predictive Coding Performance and the Silly F1 Score*, ***Clustify Blog***, *May 2013*
- *Combination of Technology and Humans Work Best in E-Discovery Review*, Study Finds, ***Daily Business Review***, November 1, 2016

Resources

- *Despite Early Success, Technology Assisted Review's General Acceptance Is Limited by Its Lack of Definition and, Therefore, Its Lack of Justification*, Bill Speros, Accepted by and presented at Arizona State University – Arkfeld E-Discovery and E-Evidence Conference, March, 2016.
- *eDiscovery Vendor Viability: Comparisons Beyond Technology and Talent*, ***Complex Discovery***, May 13, 2015
- *Predictive Coding's Erroneous Zones Are Emerging Junk Science*, Bill Speros, April 28, 2013
- *E-discovery: Effects of automated technologies on electronic document preservation and review obligations*, ***Inside Counsel***, December 18, 2012
- David Horrigan, *Assisted Review Technologies: E-Discovery's 'Brave New World' of Predictive Coding and TAR*, ***451 Research Report***, July 13, 2012.
- *TREC Legal Track*, ***Text Retrieval Conference (TREC)***, *2012*

Resources

- *Experts on Computer-Assisted Review: Why Federal Rule of Evidence 702 Should Apply to Their Use*, ***Washburn Law Journal,*** *Vol. 52 (2012-2013).*
- *"Defensible" By What Standard?"*, ***Hon. Craig B. Shaffer, The Sedona Conference*** (2012).
- *Plaintiff Must Cooperate on Search Terms, Says Court: eDiscovery Case Law*, ***eDiscovery Daily****, October 27, 2016*

THANKS
FOR ATTENDING

YOU MAKE E-DISCOVERY DAY POSSIBLE

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