



E-DISCOVERY SEARCH COMPETENCE

To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, ...

ABA Model Rules Comment #8 on Rule 1.1
Competence

Maintaining competence

To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, engage in continuing study and education, including an understanding of the benefits and risks associated with the use of technology, and comply with all continuing legal education requirements to which the lawyer is subject.

1. Initially assess e-discovery needs and issues, if any;
2. Implement/cause to implement appropriate ESI preservation procedures;
3. Analyze and understand a client's ESI systems and storage;
4. Advise the client on available options for collection and preservation of ESI;
5. Identify custodians of potentially relevant ESI;
6. Engage in competent and meaningful meet and confer with opposing counsel concerning an e-discovery plan;
7. Perform data searches;
8. Collect responsive ESI in a manner that preserves the integrity of the ESI; and
9. Produce responsive non-privileged ESI in a recognized and appropriate manner.

<http://www.calbar.ca.gov/Attorneys/Sections/Litigation/Publications/California-Litigation-Review/E-Discovery-Skills>

What happens in an INTERNET MINUTE?



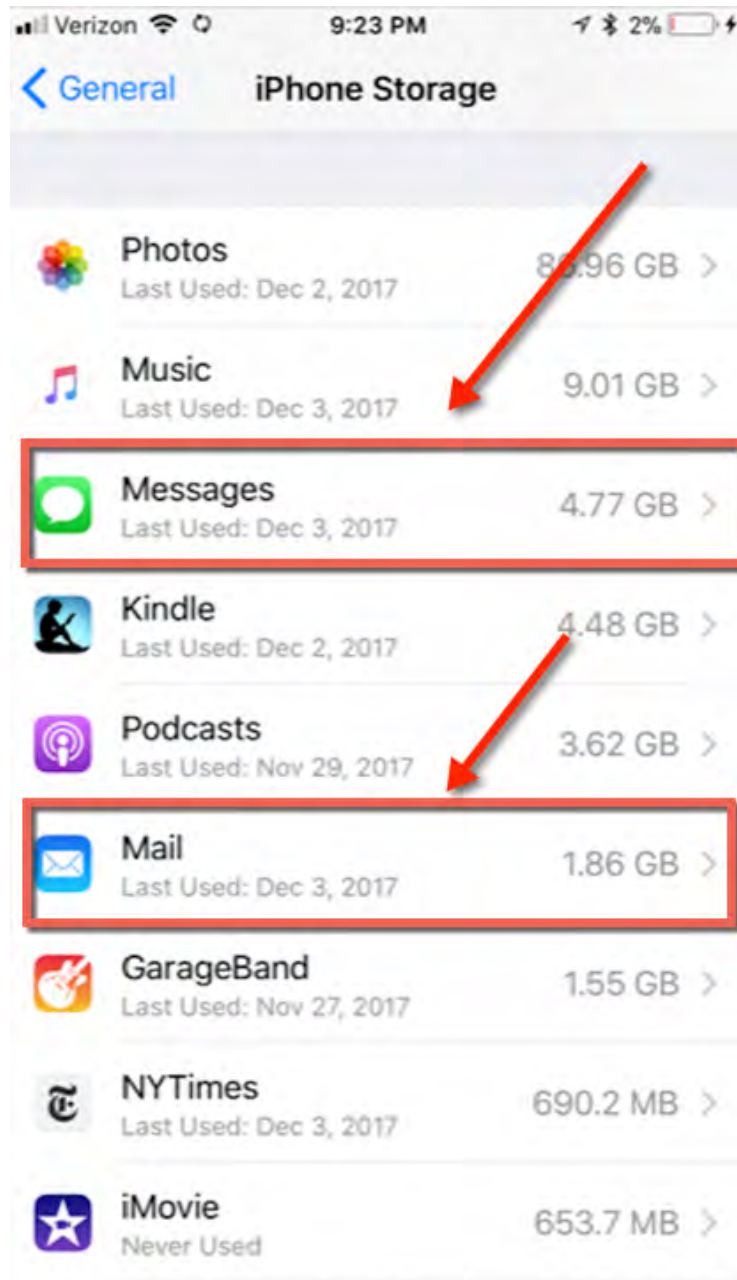
EXCELACOM
©2015 Excelacom, Inc.

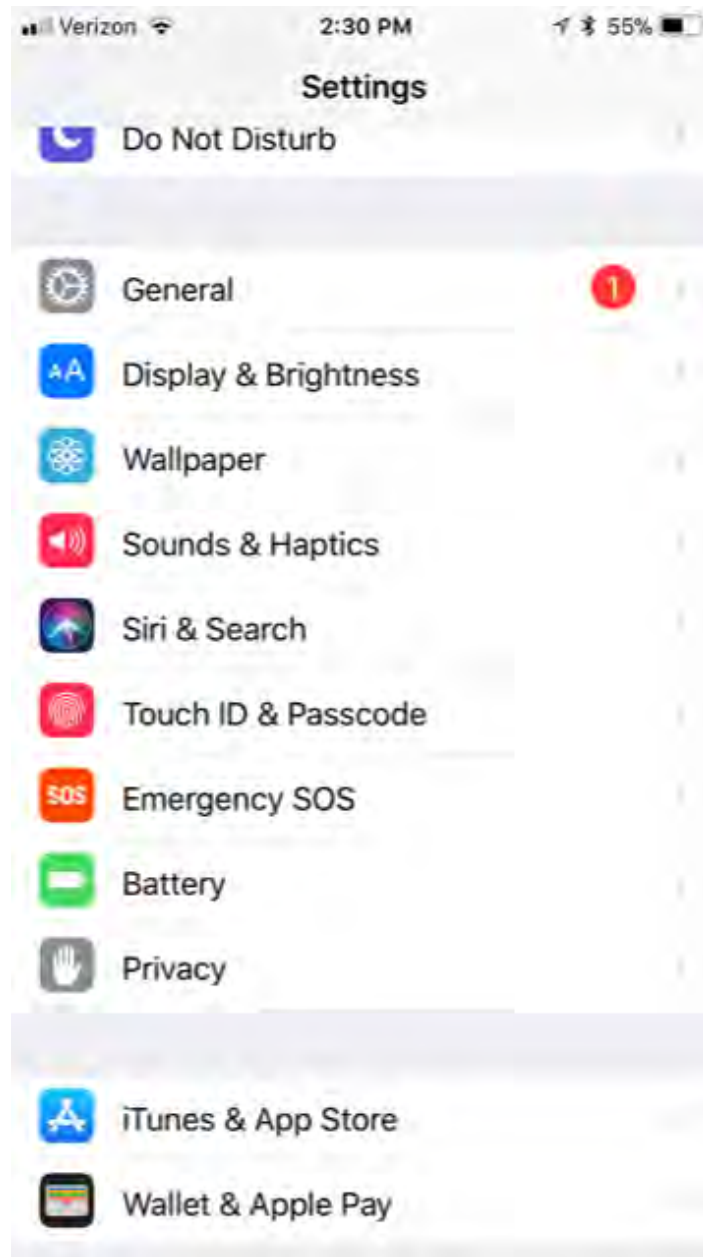
- Less than 0.5% of all data we create is ever analyzed and used;
- 73% of organizations have already invested or will invest in big data by the end of 2016;
- A 10% increase in data accessibility will result in more than \$65 million additional net income for the typical Fortune 1000 company;
- By 2020, there will be more than 50 billion smart connected devices in the world, collecting, analyzing and sharing data;
- In 2015, an estimated 1 trillion photos were taken and billions of them will be shared online;
- By 2017, nearly 80% of photos will be taken on smart phones and most will become searchable data;
- We perform 40,000 search queries every second on Google alone, 1.2 trillion searches per year;
- By 2020, about 7 megabytes of new information will be created every second for every human on the planet;
- Bad data costs US businesses alone \$600 billion annually;
- Big data will drive an estimated \$232 billion in spending in 2016.
- 70% of data is created by individuals, but enterprises are responsible for storing and managing 80% of that.

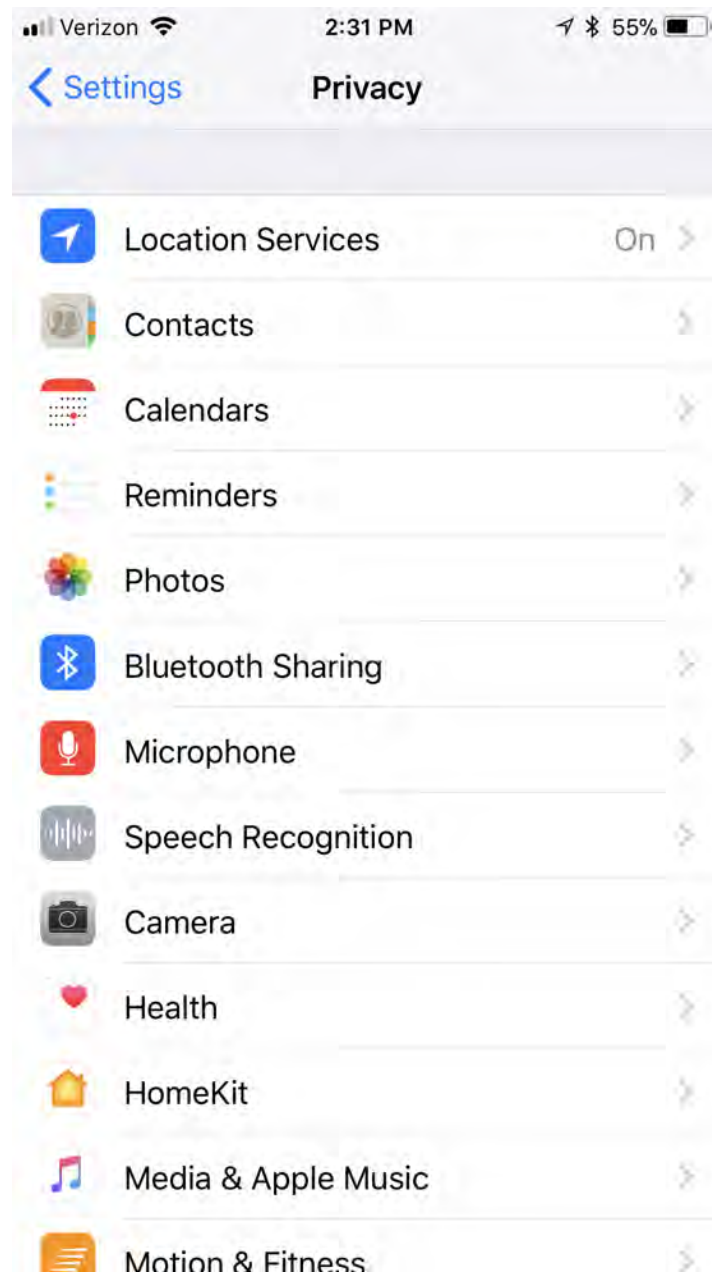
<https://www.ediscovery.co/ediscoverydaily/electronic-discovery/date-fun-facts-big-data-ediscovery-trends/>

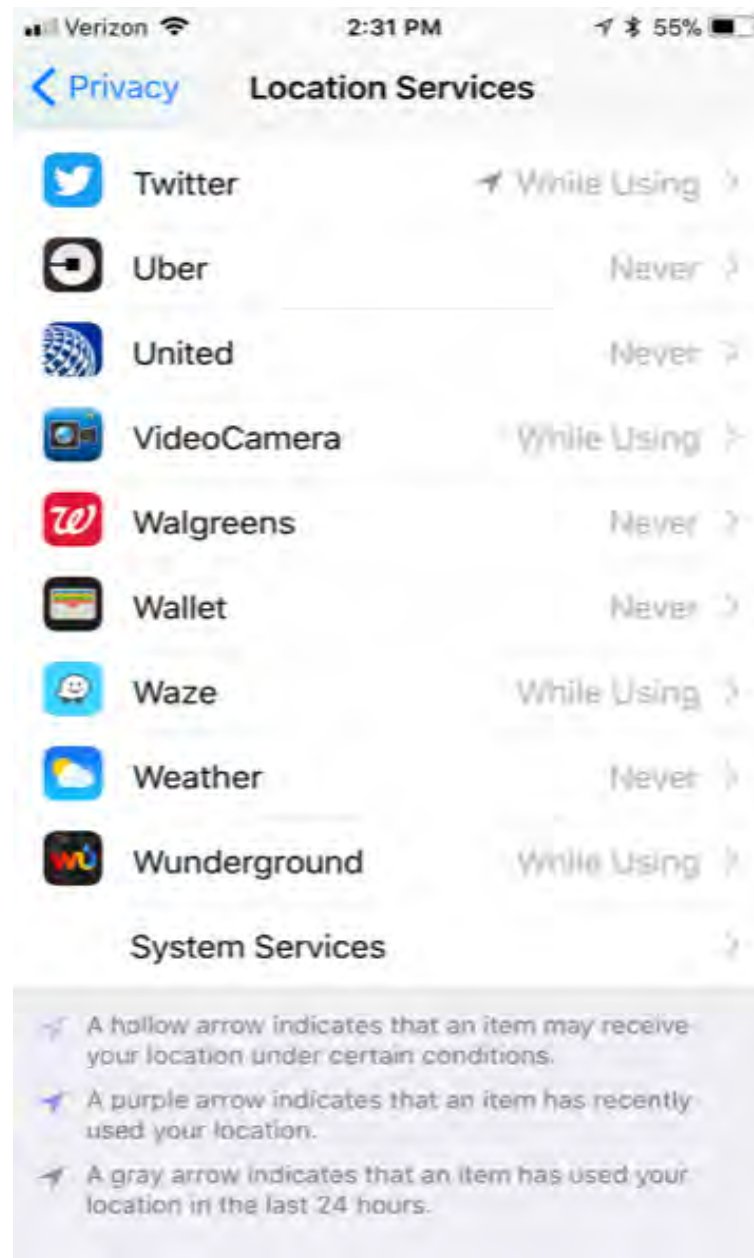


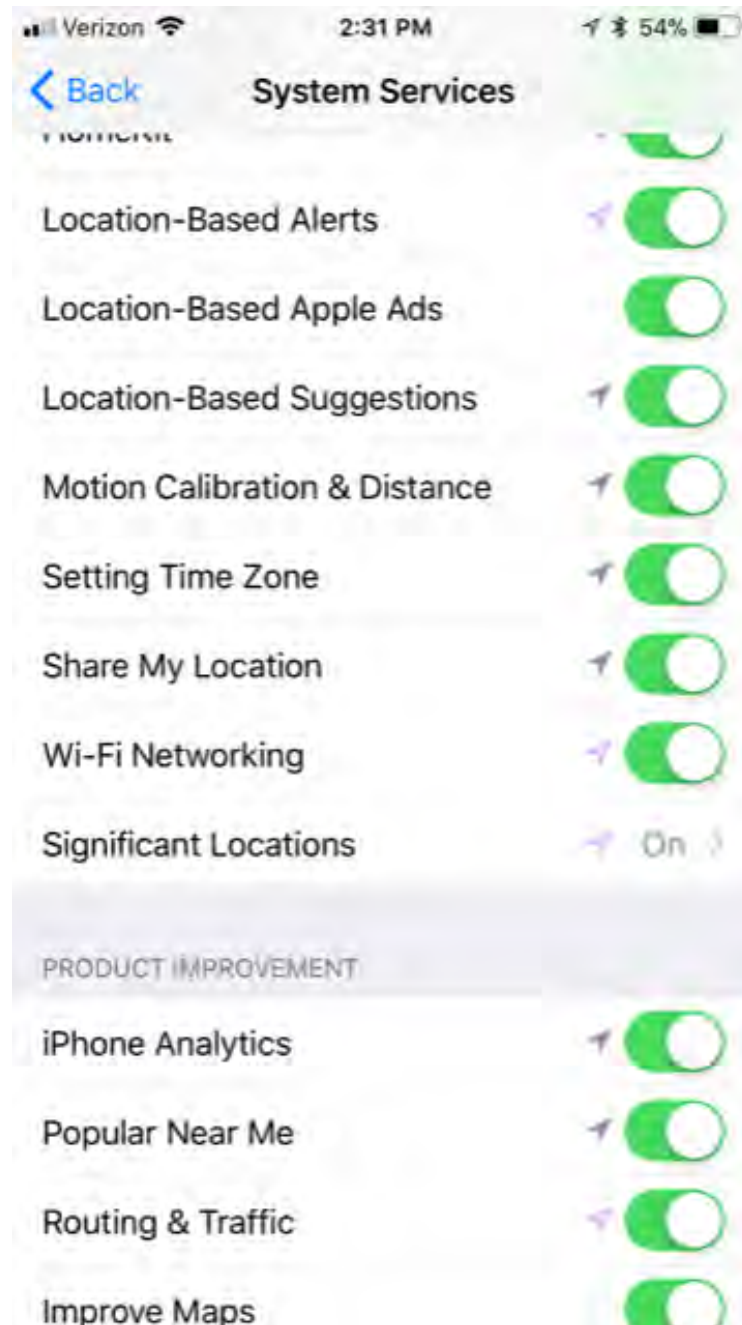
E-Discovery Godzilla

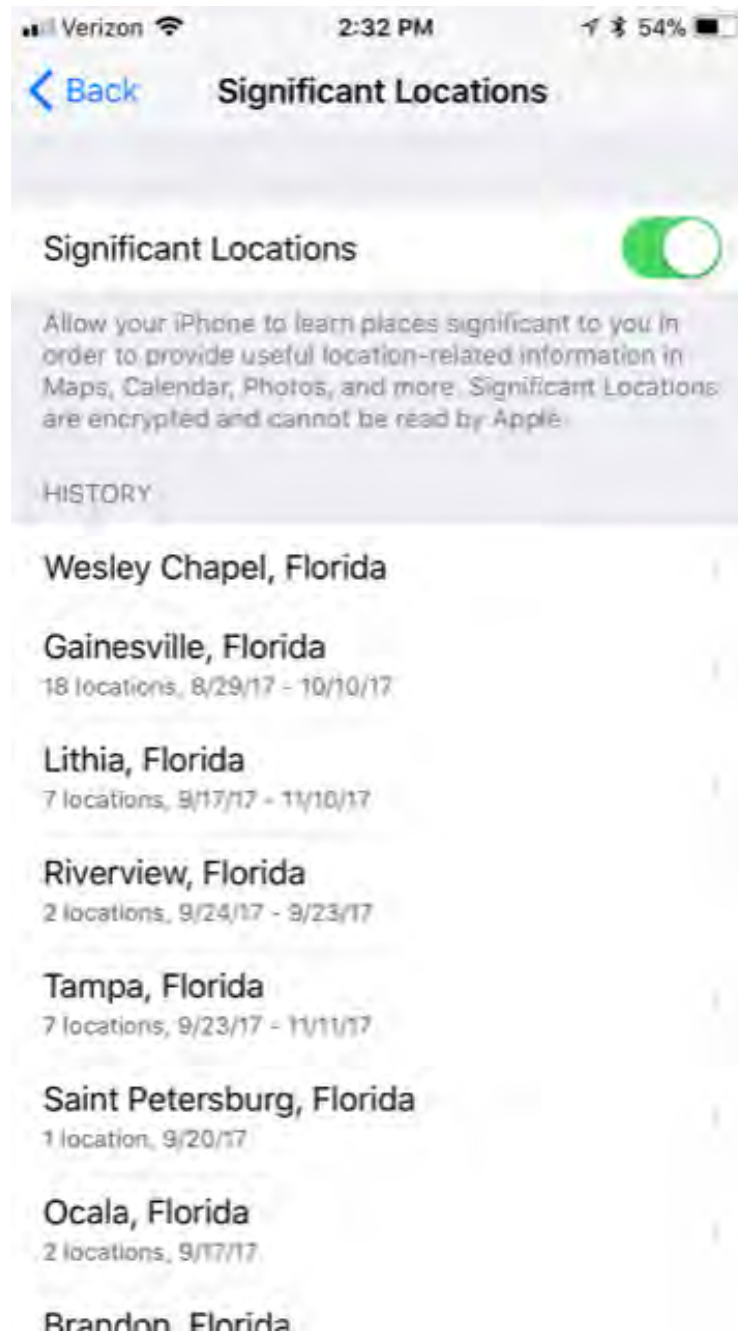


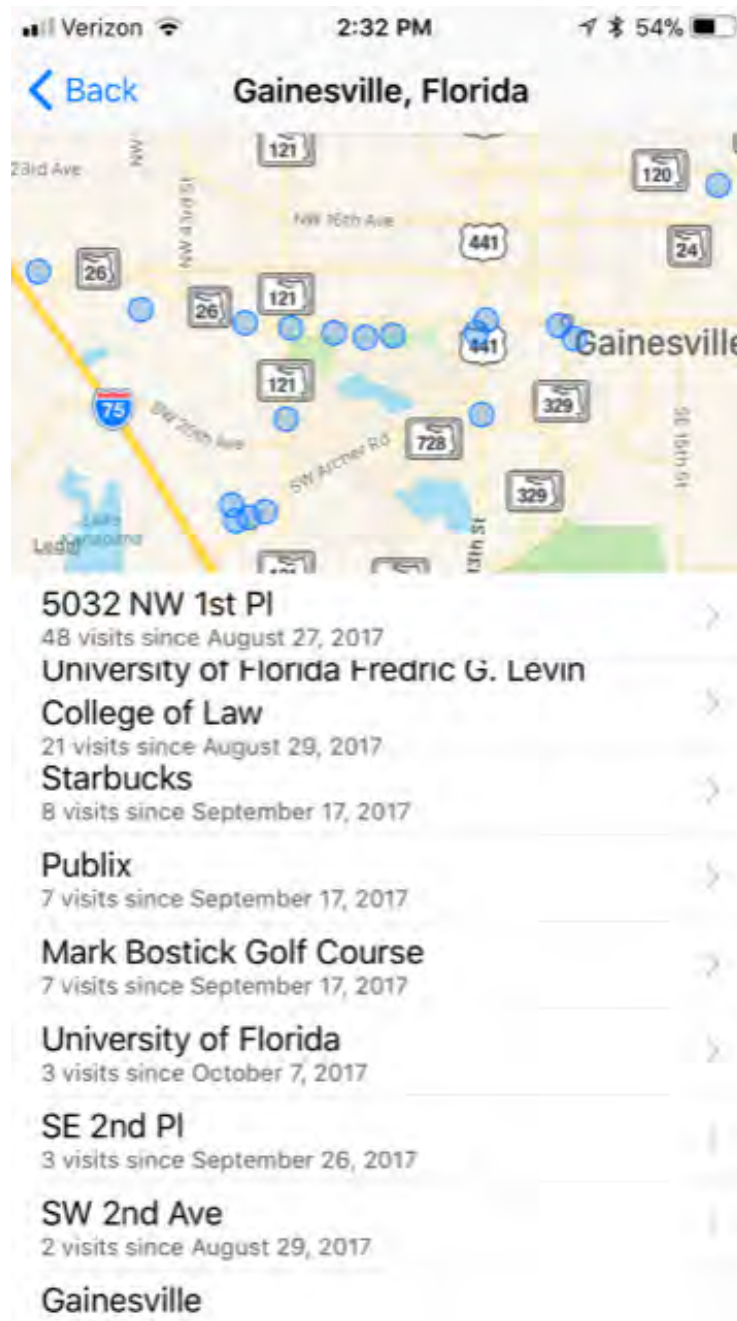












Verizon 2:33 PM 54%

< University of Florida Fredric G. Levin Coll...



9:34 AM - 2:31 PM

10/18/17

9:03 AM - 12:49 PM

10/17/17

12:14 PM - 2:05 PM

10/16/17

7:35 PM - 7:58 PM

10/10/17

8:53 AM - 3:20 PM

10/10/17

11:10 AM - 1:28 PM

10/4/17

2:53 PM - 4:13 PM

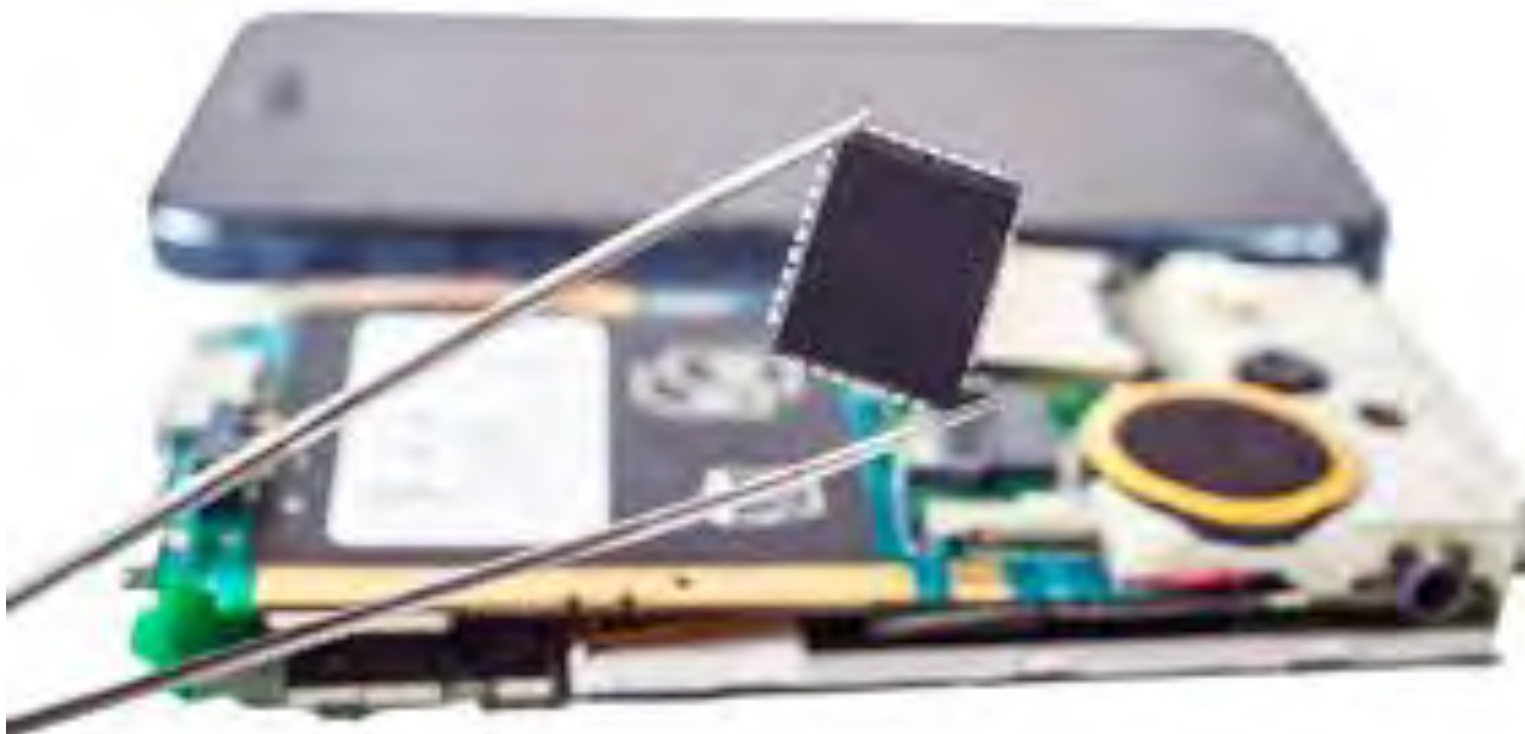
10/3/17

7:53 AM - 1:13 PM

10/3/17

9:07 AM - 5:51 PM







The League of Women Voters v. Detzner, 179 So. 3d 258 (Fla. 2015)



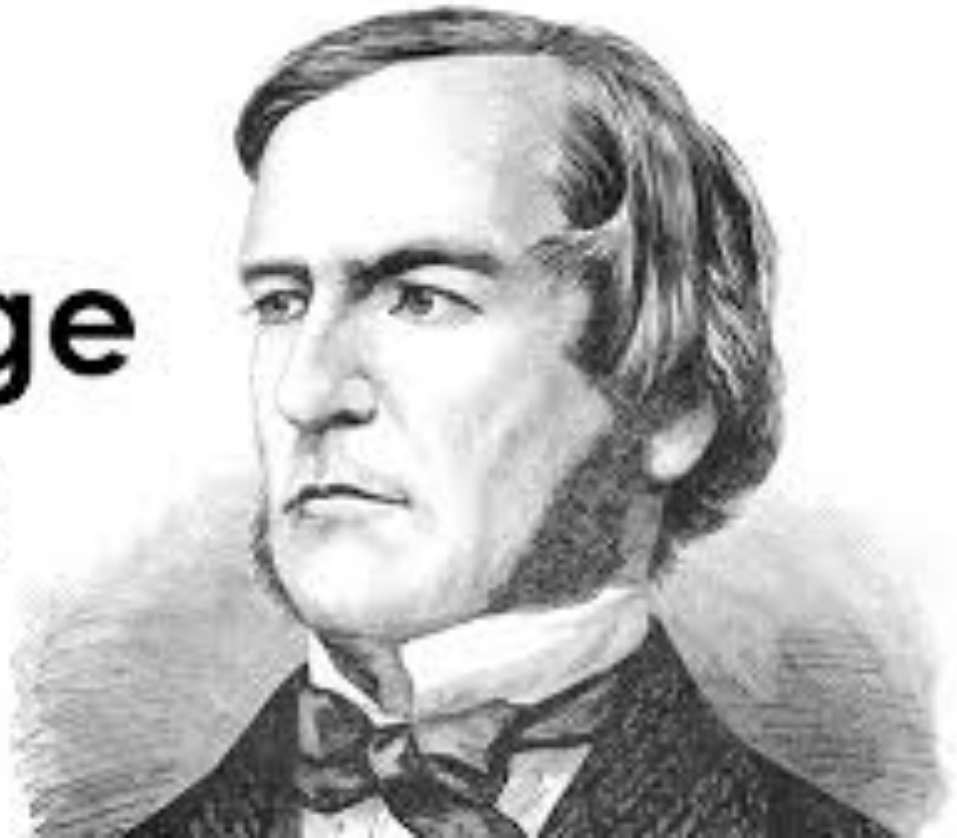
UnitedHealthcare of Florida v. Am. Renal Ass., 2017 US Dist. Lexis 174454

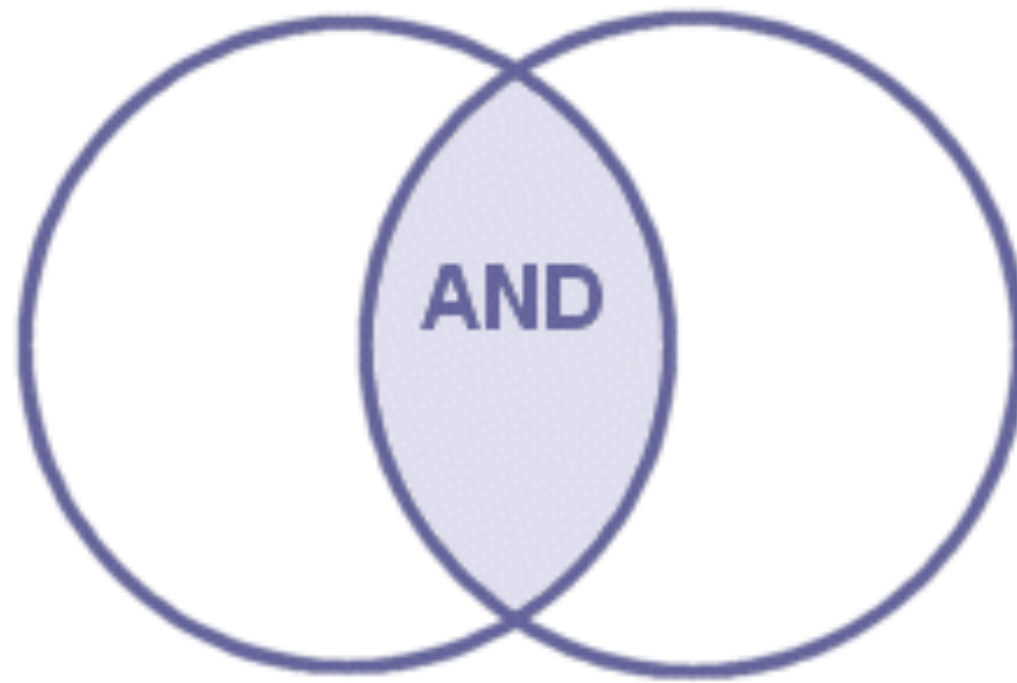
“[The Court expects counsel] to run those search terms and engage in sampling to see if the search terms are producing responsive documents or excessive irrelevant hits, and then to continue to refine the search terms in a cooperative, professional effort until the search terms are appropriately refined and produce relevant documents without including an excessive number of irrelevant documents.”



Wooden v. Barringer, 2017 U.S. Dist. LEXIS 183170

George Boole





P	Q	P and Q
T	T	T
T	F	F
F	T	F
F	F	F

*54·43. $\vdash \therefore \alpha, \beta \in 1 \supset : \alpha \cap \beta = \Lambda \equiv . \alpha \cup \beta \in 2$

Dem.

$\vdash . *54·26 \supset \vdash \therefore \alpha = t'x, \beta = t'y \supset : \alpha \cup \beta \in 2 \equiv . x \neq y .$

[*51·231] $\equiv . t'x \cap t'y = \Lambda .$

[*13·12] $\equiv . \alpha \cap \beta = \Lambda \quad (1)$

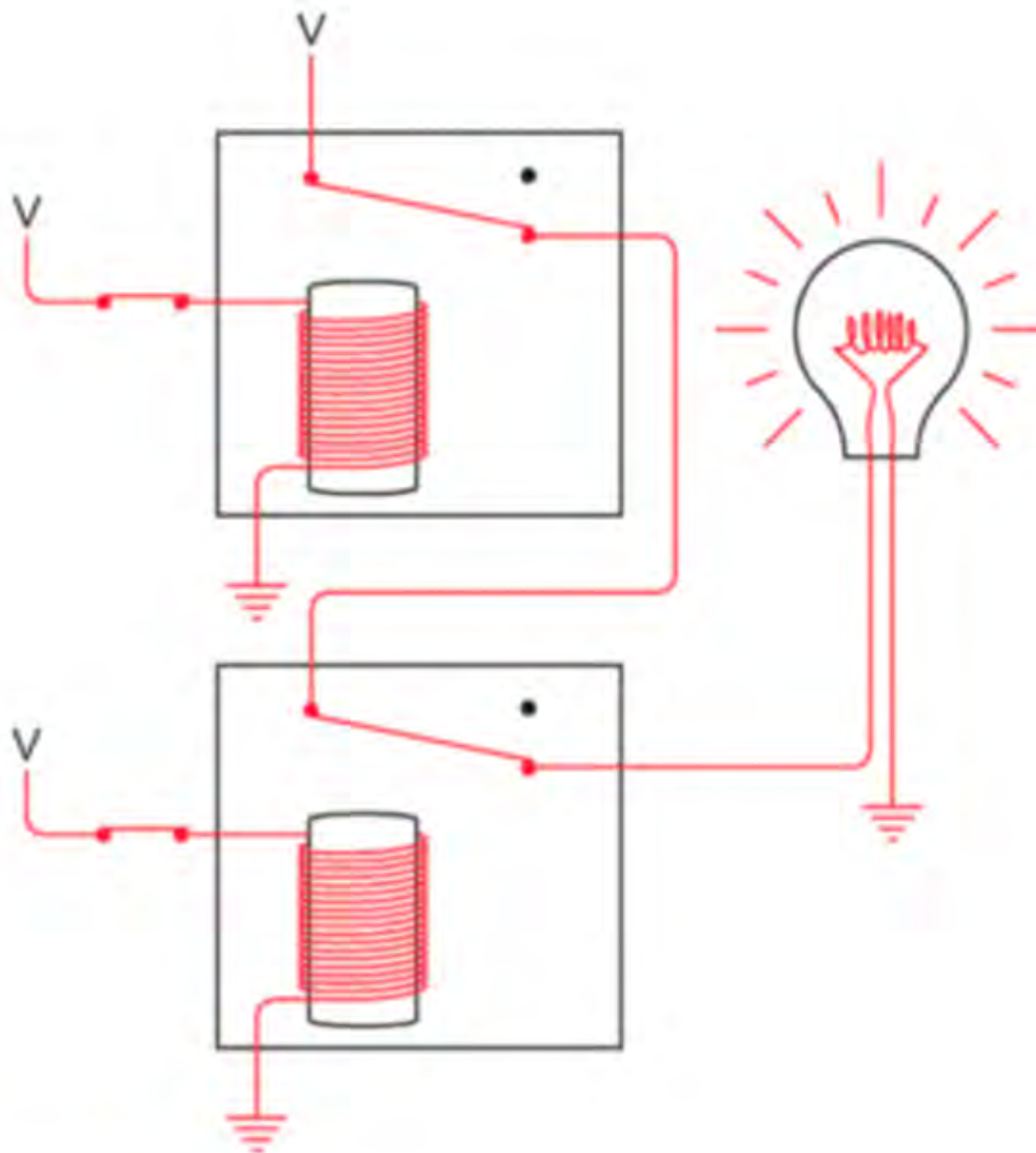
$\vdash . (1) . *11·11·35 \supset$

$\vdash \therefore (\exists x, y) . \alpha = t'x, \beta = t'y \supset : \alpha \cup \beta \in 2 \equiv . \alpha \cap \beta = \Lambda \quad (2)$

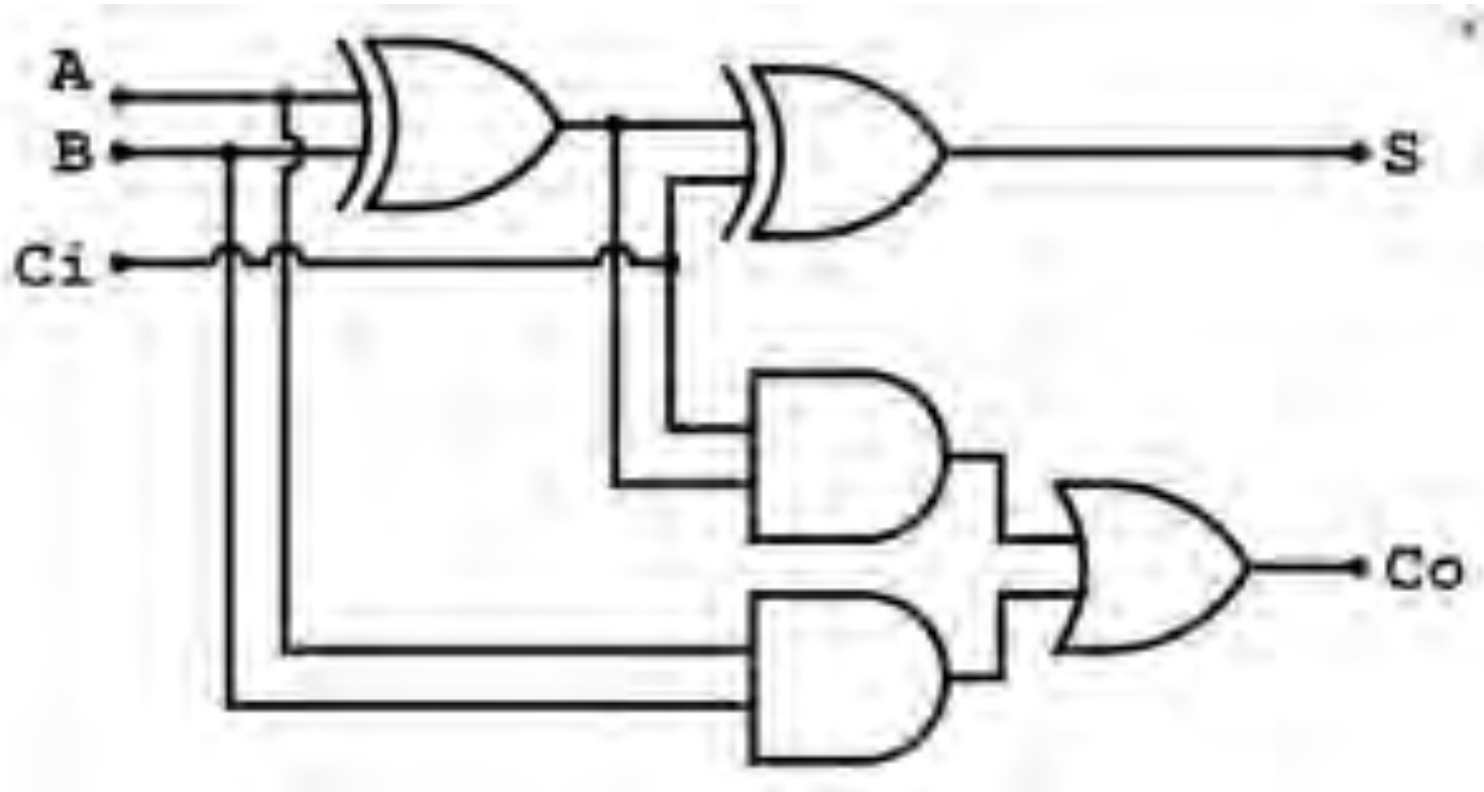
$\vdash . (2) . *11·54 . *52·1 \supset \vdash . \text{Prop}$

From this proposition it will follow, when arithmetical addition has been defined, that $1 + 1 = 2$











ASCII Code: Character to Binary

0	0011 0000	O	0100 1111	m	0110 1101
1	0011 0001	P	0101 0000	n	0110 1110
2	0011 0010	Q	0101 0001	o	0110 1111
3	0011 0011	R	0101 0010	p	0111 0000
4	0011 0100	S	0101 0011	q	0111 0001
5	0011 0101	T	0101 0100	r	0111 0010
6	0011 0110	U	0101 0101	s	0111 0011
7	0011 0111	V	0101 0110	t	0111 0100
8	0011 1000	W	0101 0111	u	0111 0101
9	0011 1001	X	0101 1000	v	0111 0110
A	0100 0001	Y	0101 1001	w	0111 0111
B	0100 0010	Z	0101 1010	x	0111 1000
C	0100 0011	a	0110 0001	y	0111 1001
D	0100 0100	b	0110 0010	z	0111 1010
E	0100 0101	c	0110 0011	.	0010 1110
F	0100 0110	d	0110 0100	,	0010 0111
G	0100 0111	e	0110 0101	:	0011 1010
H	0100 1000	f	0110 0110	;	0011 1011
I	0100 1001	g	0110 0111	?	0011 1111
J	0100 1010	h	0110 1000	!	0010 0001
K	0100 1011	I	0110 1001		0010 1100
L	0100 1100	j	0110 1010	"	0010 0010
M	0100 1101	k	0110 1011	(0010 1000
N	0100 1110	l	0110 1100)	0010 1001
				space	0010 0000


```

000009F0: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00000A00: 14 52 41 46 54 20 34 2F 32 37 2F 32 30 31 37 0
00000A10: 09 09 00 00 00 55 6E 69 76 65 72 73 69 74 79 2
00000A20: 0F 66 20 46 6C 6F 72 69 64 61 20 20 0D 43 6F 6
00000A30: 6C 65 67 65 20 6F 66 20 4C 61 77 0D 43 6F 6D 7
00000A40: 6C 65 78 20 4C 69 74 69 67 61 74 69 6F 6E 20 4
00000A50: 6F 75 72 73 65 20 53 79 6C 6C 61 62 75 73 0D 0
00000A60: 0D 0D 43 6F 75 72 73 65 3A 20 43 6F 6D 70 6C 6
00000A70: 78 20 4C 69 74 69 67 61 74 69 6F 6E 0D 09 20 2
00000A80: 20 20 46 61 6C 6C 20 53 65 6D 65 73 74 65 72 2
00000A90: 32 30 31 37 0D 0D 43 6C 61 73 73 20 54 69 6D 6
00000AA0: 3A 20 20 54 75 65 73 64 61 79 20 31 30 3A 30 3
00000AB0: 20 96 20 31 31 3A 34 30 3B 20 52 6F 6F 6D 20 3
00000AC0: 04 35 0D 0D 4F 66 66 69 63 65 20 48 6F 75 72 7
00000AD0: 3A 20 54 75 65 73 64 61 79 73 20 31 3A 30 30 2
00000AE0: 50 4D 20 96 20 33 3A 30 30 20 50 4D 2E 20 41 6
00000AF0: 64 69 74 69 6F 6E 61 6C 6C 79 2C 20 61 6E 20 6
00000B00: 70 70 6F 69 6E 74 6D 65 6E 74 20 6D 61 79 20 6
00000B10: 55 20 72 65 61 64 69 6C 79 20 73 63 68 65 64 7
00000B20: 6C 65 64 20 66 6F 72 20 6F 74 68 65 72 20 64 6
00000B30: 79 73 20 61 6E 64 20 74 69 6D 65 73 20 62 79 2
00000B40: 63 6F 6E 74 61 63 74 69 6E 67 20 74 68 65 20 6
00000B50: 6E 73 74 72 75 63 74 6F 72 2E 20 56 69 64 65 6
00000B60: 63 6F 6E 66 65 72 65 6E 63 65 73 20 2D 2D 69 6
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00000B80: 20 67 72 6F 75 70 73 2D 2D 20 77 69 74 68 20 7
00000B90: 68 65 20 69 6E 73 74 72 75 63 74 6F 72 20 61 7
00000BA0: 65 20 65 6E 63 6F 75 72 61 67 65 64 2E 0D 0D 4
00000BB0: 6E 73 74 72 75 63 74 6F 72 3A 0D 0D 57 69 6C 6
00000BC0: 69 61 6D 20 46 2E 20 48 61 6D 69 6C 74 6F 6E 0
00000BD0: 0D 4C 65 67 61 6C 20 53 68 69 6C 6C 73 20 50 7
00000BE0: 6F 66 65 73 73 6F 72 20 61 6E 64 20 0D 45 78 6
00000BF0: 63 75 74 69 76 65 20 44 69 72 65 63 74 6F 72 0
00000C00: 09 6E 74 65 72 6E 61 74 69 6F 6E 61 6C 20 43 6
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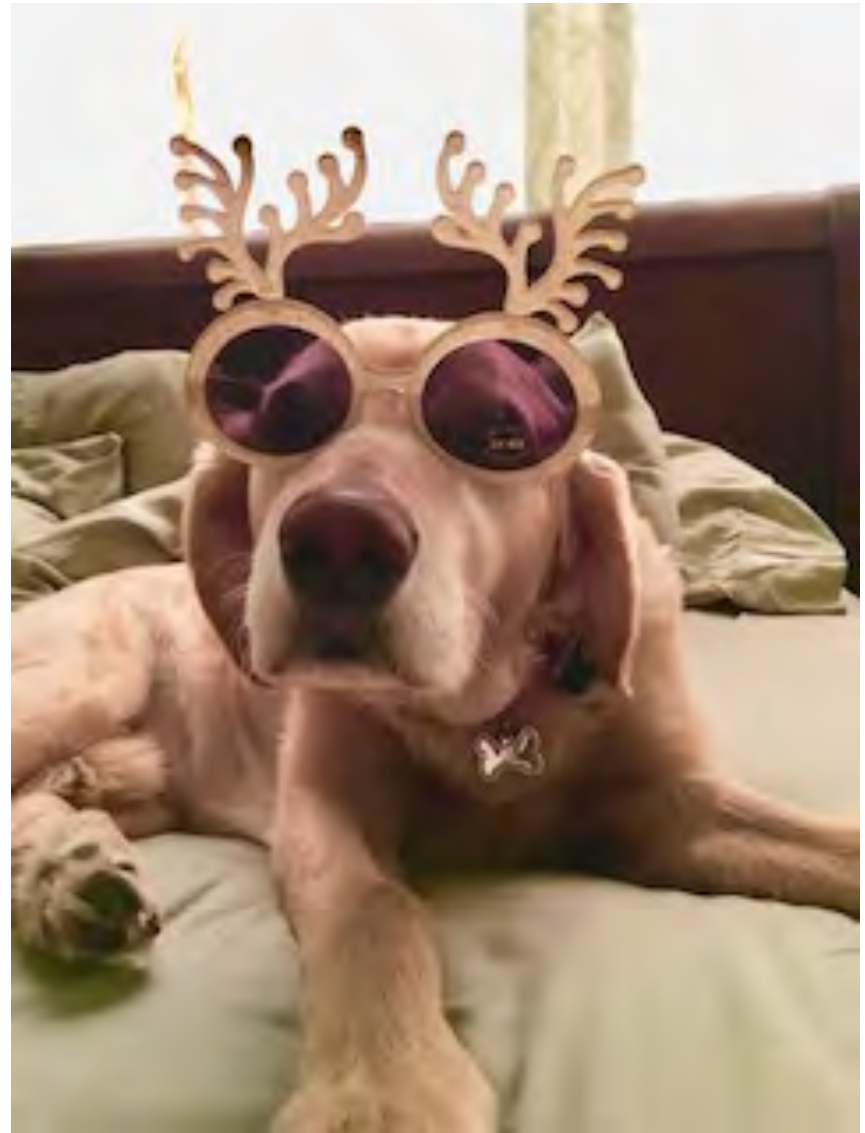
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*****
DRAFT 4/27/2017.
.....University
of Florida .Col
lege of Law.Comp
lex Litigation C
ourse Syllabus..
..Course: Comple
x Litigation..
Fall Semester
2017..Class Time
; Tuesday 10:00
. 11:40; Room 3
45..Office Hours
: Tuesdays 1:00
PM . 3:00 PM. Ad
ditionally, an a
ppointment may b
e readily schedu
led for other da
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contacting the i
nstructor. Video
conferences --in
dividually or in
groups-- with t
he instructor ar
e encouraged....I
nstructor:..Will
iam F. Hamilton.
.Legal Skills Pr
ofessor and .Exe
cutive Director.
International Ce
nter for Automat
ed Information R

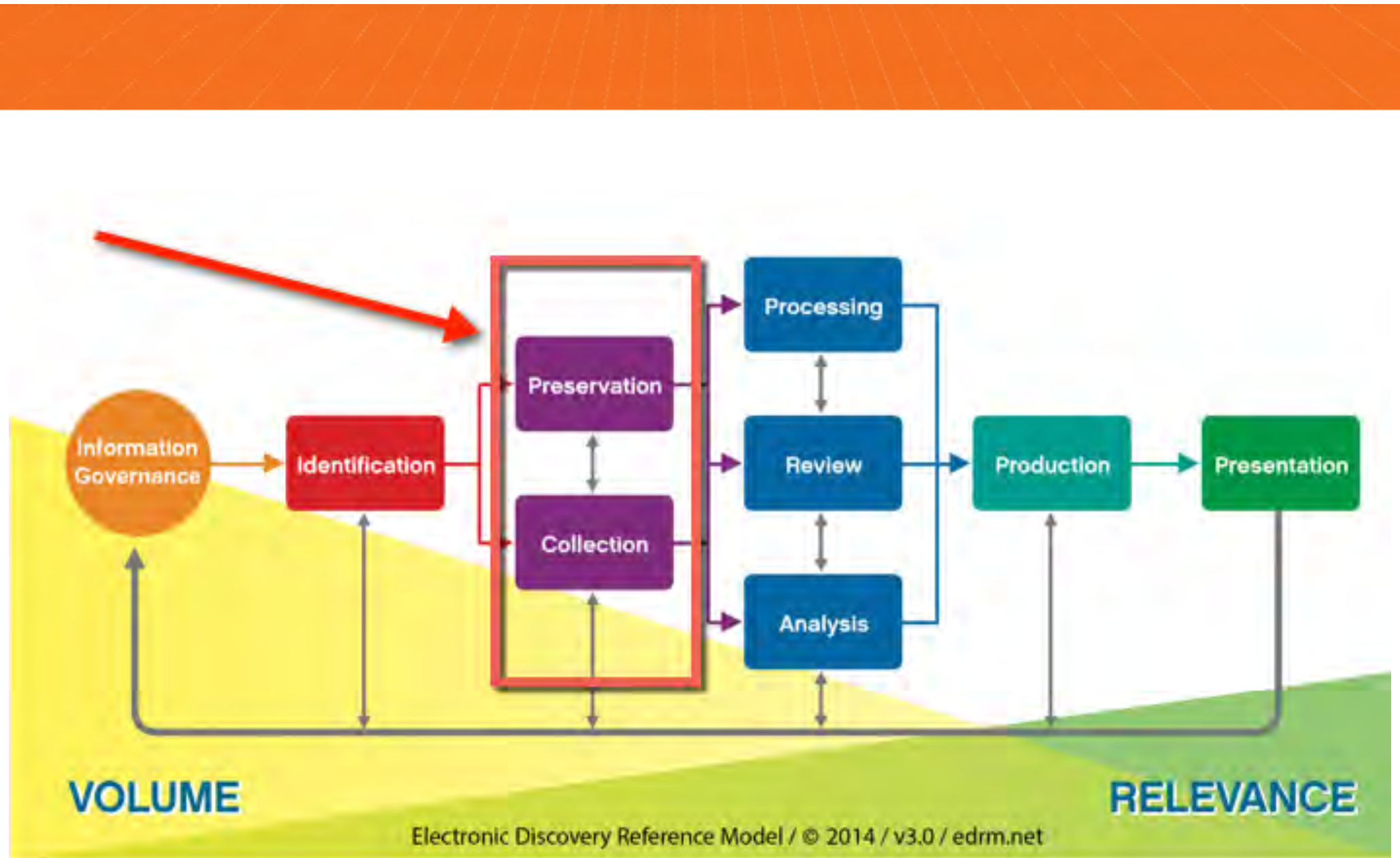
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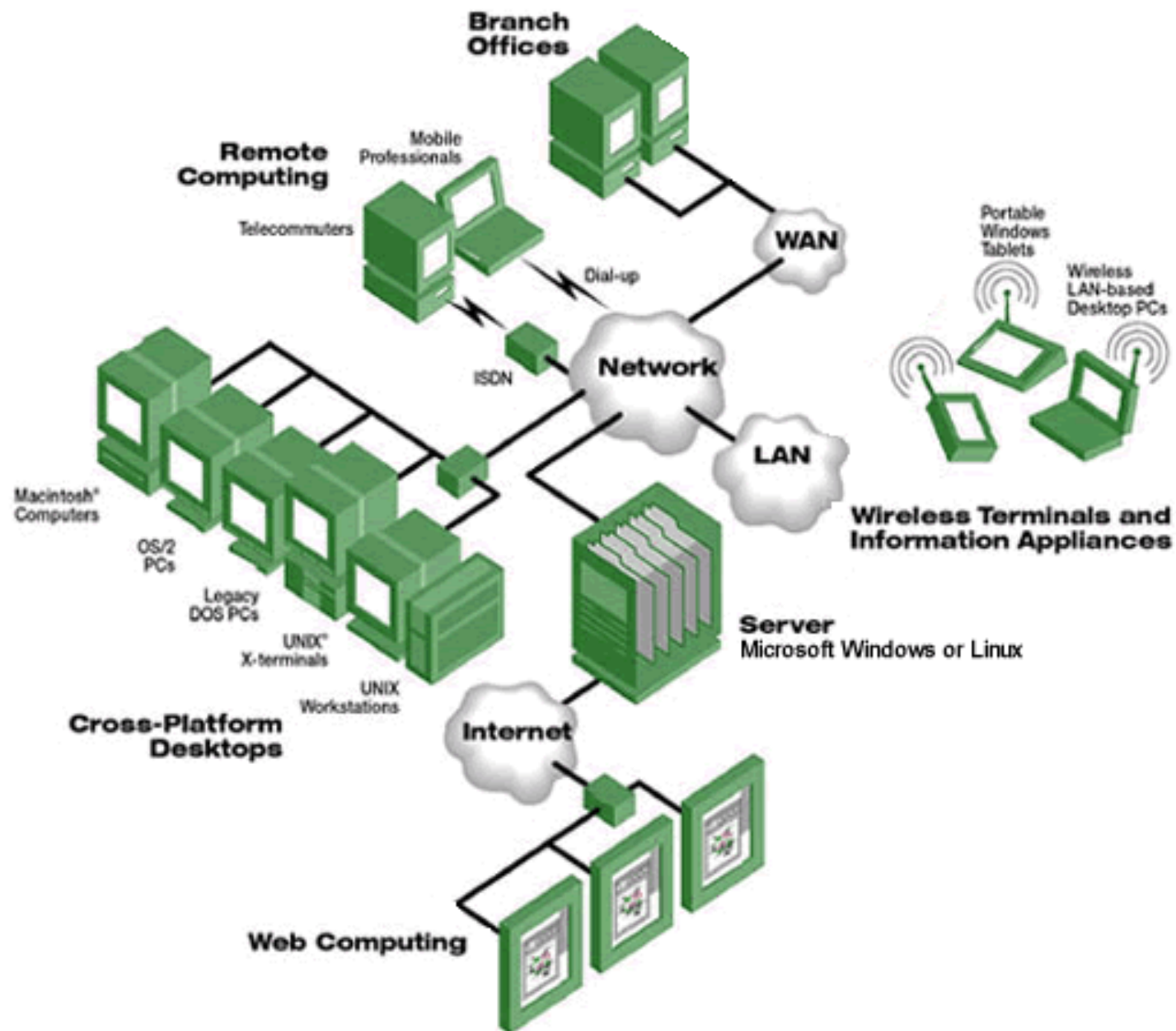
Pictures, documents, presentations,
sounds, messages, databases,
powerpoints, excel, spreadsheets, web
pages, video, text, logs, chats,

Desktop, backup, discs, flash, USB,
servers (web, email, files), tablets,
smartphones,.....

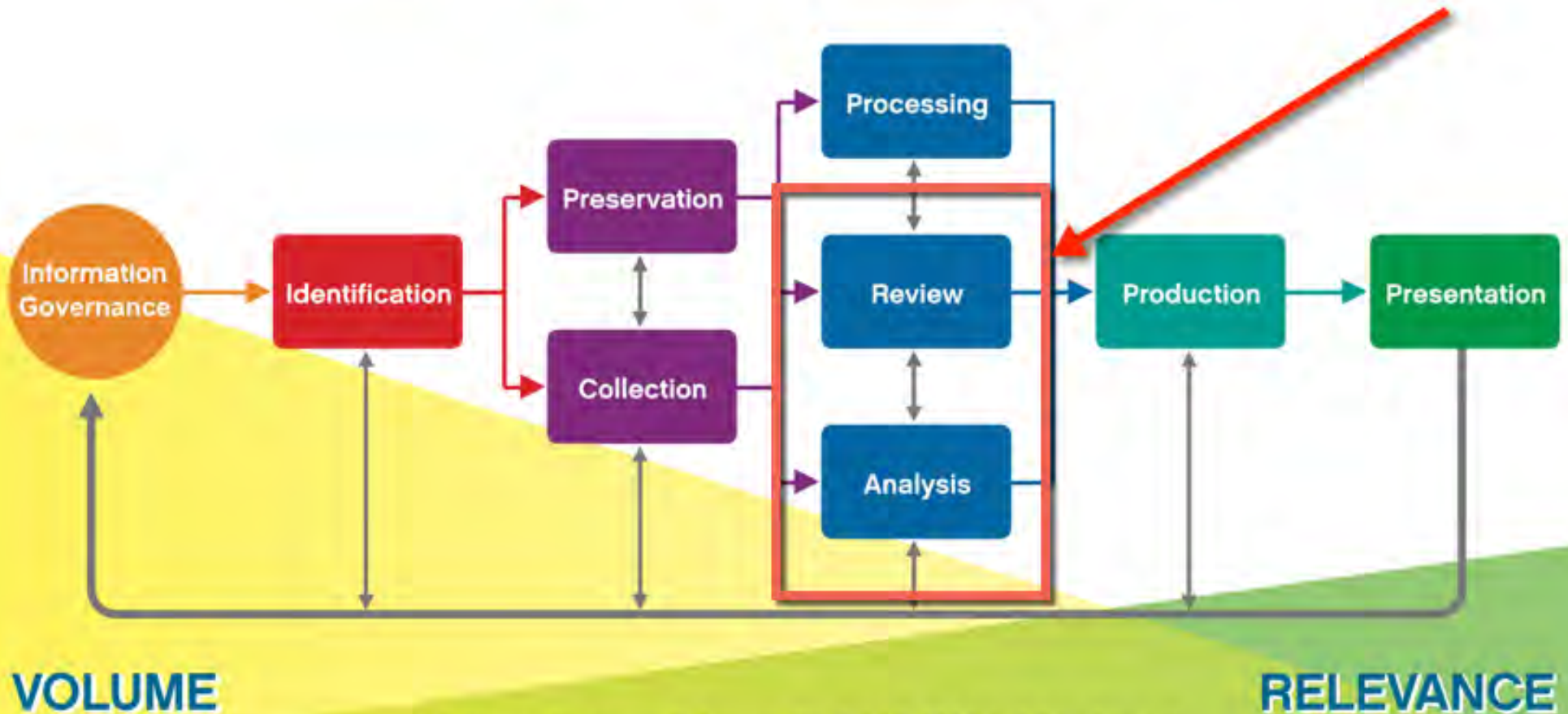


Company XYZ Data Map

Data Type	Responsible	Online Data	Nearline Data	Offline Data	Inaccessible	Retention Policy	Information last updated
Email	Ted Brown	Exchange Server 2010 (SERVER1 - Phoenix location) - email up to 1 year old	Email archiving system (SQLSRVR6), emails from 1 January 2008 until present	Daily backup tapes - Exchange Server - Server room - Phoenix location, email 2005-2008	Email backup tapes Lotus Domino 2004-2005	Retain for 5 years	12/20/11
Voice mails	Ted Brown	Exchange Server 2010 (SERVER1 - Phoenix location) - email up to 1 year old	Email archiving system (SQLSRVR6), emails from 1 January 2008 until present	Daily backup tapes - Exchange Server - Server room - Phoenix location, email 2005-2008	Email backup tapes Lotus Domino 2004-2005	Retain for 5 years	12/20/11
CRM System	Eric Hamm	CRM application (SERVER2 Los Angeles location). All up to date customer and supplier records.	Online Backup Store from 5 February 2010	Daily backup tapes - Server room - Los Angeles location, backups 2008-2010	Backup tapes from legacy system 2001- 2008.	Retain for 5 years	11/15/11
Faxes	Ted Brown	Exchange Server 2010 (SERVER1 - Phoenix location) - email up to 1 year old	Email archiving system (SQLSRVR6), emails from 1 January 2008 until present	Daily backup tapes - Exchange Server - Server room - Phoenix location, email 2005-2008	Email backup tapes Lotus Domino 2004-2005	Retain for 5 years	12/20/11
Documents	Derek Lawson	Microsoft SharePoint (SHARESRVR4 - Phoenix location)	Online Backup Store from 5 February 2010	Daily Backup tapes from 2008-present	Backup tapes from legacy system prior to 2008.	Retain for 5 years	12/8/11
Website	Sonia Mint	Content Management System (CMSSSRVR3- Los Angeles location) - current website	Online Backup Store from 5 February 2010	Monthly backup tapes 2006-2010	Legacy website files 2004-2006	Retain for 5 years	12/25/11
Accounting	Bob Jones	Accounting System from 1 January 2011 (FILESRV5 - Los Angeles location)	Online Backup Store from 5 February 2010	Daily backups 2001 - present Server room - Los Angeles location.		Retain for 10 years	12/25/11
Mobile devices	Ted Brown	On devices	Online Backup Store from 5 February 2010	Backup tapes 2007-2010		Retain for 5 years	8/30/11
Laptops	Ted Brown	On devices	Online Backup Store from 5 February 2010	Backup tapes 2007-2010		Retain for 5 years	8/30/11
Online Data: Data is immediately accessible							
Nearline Data: Recovery effort is minimal							
Offline Data: Recovery effort is considerable							
Inaccessible Data: Recovery is close to impossible							
Adapted from: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=0CGsQFjAA&url=http%3A%2F%2Fwww.policypatrol.com%2Fdocs%2Fdiscovery-data-map.xls&ei=Uf7gTpGkGu6osALnzozdBg&usq=AFQjCNEbuxjUnSZTGhHWMdstL8-wCZDkg&sig2=q-BdguwlnptCHb5uvKFavQ							

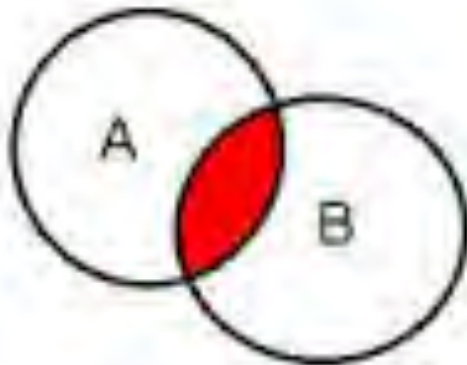


Electronic Discovery Reference Model

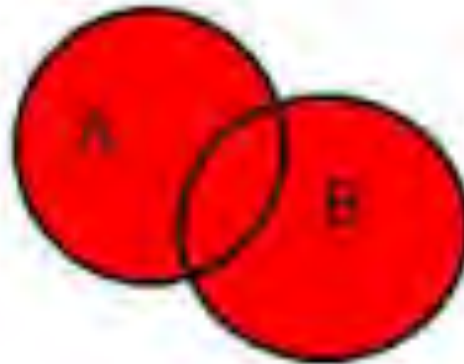


Electronic Discovery Reference Model / © 2014 / v3.0 / edrm.net

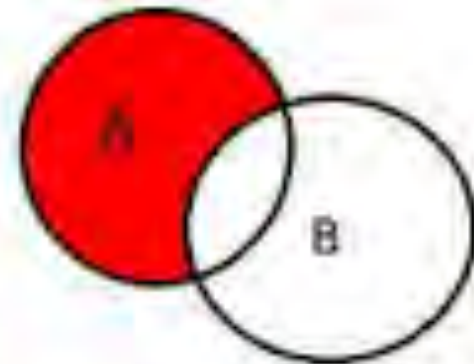
BOOLEAN OPERATORS



A AND B



A OR B



A NOT B

Search: Profit AND ((Loss OR gain) OR energy)

Evidence (1,460/20,800 hits; 7.02%)

Enron_Lay_2 (1,460)

Filtered Items

All Items (1,460)

Email (1,221)

Calendar (0)

Contacts (0)

Documents (196)

Spreadsheets (25)

Presentations (9)

Drawings (9)

Other Documents (0)

Images (0)

Multimedia (0)

Databases (0)

Containers (0)

System Files (0)

File Data (0)

Unrecognised (0)

Logs (0)

Email Attachments (239)

Emails and Loose Files (1,221)

Irregular Items (13)

Index and Storage (7)

Commented (0)

Internet (7)

Communications (7)

Mobile (7)

Computer (7)

Multimedia (7)

Named Entries (0)

Markup Sets

Languages (1,426)

Writing Scripts (6)

Review Jobs

Tagged

Results

Immaterial Items: Hide

Deduplication: MDS

Name	MIME Type	Description
Lay-RFF-Energy Company.doc	application/vnd.ms-word	Energy Services in t
IWOV annual Report.pdf	application/pdf	Unknown
P004302520001110D01.pdf	application/pdf	Microsoft Word - PV
globpaper53.pdf	application/pdf	
MPR 11302001.xls	application/vnd.ms-excel	sayala; sayala
H: E-business for Energy briefing	application/vnd.ms-outloo...	Streaming Media <r
cmolis-2.doc	application/vnd.ms-word	1234; Bill Rutherfor
mime001.txt	application/pdf	
P004484220001201D01.pdf	application/pdf	Microsoft Word - PV
Preliminary Programme - Energy Governors	application/vnd.ms-outloo...	"rosalee fleming"; "r
MPR 12102001.xls	application/vnd.ms-excel	sayala; sayala
MPR 10252001.xls	application/vnd.ms-excel	sayala; sayala
MPR 10262001.xls	application/vnd.ms-excel	sayala; sayala
MPR 12212001.xls	application/vnd.ms-excel	sayala; sayala
P011928720001124D01.pdf	application/pdf	
ng010611.pdf	application/pdf	ng061101.qxd; ng
October 2000 e-EFFICIENCY NEWS - New Issue!	application/vnd.ms-outloo...	owner-e-fficiencyne
Cal--fixing whats broken.doc	application/vnd.ms-word	California is only hal
[Unnamed Spreadsheet]	application/vnd.ms-excel	robert lawler; pfostr
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COPPS-1.TXT	application/vnd.corel-wor...	
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kudlow060701.doc	application/vnd.ms-word	Industry Name: Susi
ENRON.DOC	application/vnd.ms-word	Smith; Smith
10.08.01 Analyst Reports.doc	application/vnd.ms-word	08:36am EDT 8-O
10.06.00 Analyst Reports.doc	application/vnd.ms-word	05:44AM EDT 6-O
SEC Doc Draft 1114.doc	application/vnd.ms-word	CONFIDENTIAL; Mck
SEC Task Force Draft 04092001.doc	application/vnd.ms-word	CONFIDENTIAL; Mck
Lay-EESComments.doc	application/vnd.ms-word	Comments to EES Ei
FW: A Happy Landing For PGE	application/vnd.ms-outloo...	Koenig Mark <mar
kudlow102201.doc	application/vnd.ms-word	Industry Name: Susi
restructuring_CA experience revisited_SacBee_Se...	application/vnd.ms-word	Special Report: Ene
Sept21.01desk.PDF	application/pdf	Sept21.01desk.p65
10.13.00 Analyst Reports.doc	application/vnd.ms-word	08:31am EDT 13-C
6.07.01 Analyst Reports.doc	application/vnd.ms-word	08:11AM EDT 7-JL
6.04.01 Analyst Reports.doc	application/vnd.ms-word	09:11AM EDT 4-JL
10.10.00 Analyst Reports.doc	application/vnd.ms-word	08:06am EDT 10-C
2001progexternal.doc	application/vnd.ms-word	INDIA ECONOMIC SL
11.09.00 Analyst Reports.doc	application/vnd.ms-word	08:04AM EST 9-N
Saturday Articles	application/vnd.ms-outloo...	Denne Karen <kar
5.31.01 Analyst Reports.doc	application/vnd.ms-word	Compaq; Compaq
FINALGIPPER CONFERENCE CALL SCRIPT.doc	application/vnd.ms-word	SECOND QUARTER
FINALGIPPER CONFERENCE CALL SCRIPT.doc	application/vnd.ms-word	SECOND QUARTER
11.08.01 Analyst Reports.doc	application/vnd.ms-word	Moore; Moore
POWER BRIEFS - June 8, 2001	application/vnd.ms-outloo...	NewPower Commun

Displaying 1,247 items. (1,460 total > 9 immaterial items hidden > 204 duplicates removed)

Add Tags... Exclude Items... Export...

Review and Tag

Lay-RFF-Energy Company.doc

Click [here](#) to configure Tags for this case.

No date filter

Jan 1, 1980

Jul 27, 2013

Clear

Advanced

Preview

Lay-RFF-Energy Company.d...

Comment

Save As...

Launch

Path:

Evidence 1> kenneth_lay_000_1_1_1_1.pst

Top of Personal Folders> lay-k> Kenneth Lay_Dec2000

Notes Folders> All documents> RFF Talk

Duplicates:

Exact (2)

Near (2)

Similar items:

High (3)

Medium (16)

Low (74)

Text

Metadata

Family (2)

PDF

Binary

Word List

Diff

History

All Metadata

Name	Value
Nuix-defined Metadata	
File Size	60,928
File Type	Microsoft Word Document
GUID	15e5189c-7932-4666-a853-29962b...
Item Date	Friday, October 6, 2000 at 7:22:00 PM...
MD5 Digest	f5de06916af56d686097651d97f3a7d6
Path Name	/Evidence 1/kenneth_lay_000_1_1_1_1...
Shannon Entropy	4.146
Properties	
Application Version	593,645
AppName	Microsoft Word 9.0
Author	Rob Bradley
Char Count	13,687
Char Count with Spaces	16,808
CLSID	{00020906-0000-0000-C000-000000...
Comment Authors	Unknown
Company	ect
Contains Comments	false
Contains Hidden Text	false
Contains White Text	false
Created	Thursday, September 28, 2000 at 9:43...
DocSecurity	0
Edit Time	11 hours, 17 minutes, 0 seconds
Hyperlinks Changed	false
Keywords	
Last Author	R Bradley

Click on a metadata entry above to show its details here.

Edit Tags

Nuix eDiscovery Workstation

Default Configuration

507M of 1778M

Determine Sample Size

Confidence Level: ☒ 95% ☐ 99%

Confidence Interval:

Population:

Sample size needed:

<https://www.surveysystem.com/sscalc.htm>



TOP

TIP
TOM
POT





prooffinder

Search: Profit AND ((Loss OR gain) OR energy)

No date filterJan 1, 1980Jul 27, 2013ClearAdvanced

Document Navigator

Evidence (1,460/20,800 hits; 7.02%)

Enron_Lay_2 (1,460)

Evidence 1 (1,460)

kenneth_lay_000_1_1_1_1.pdf (1,460)

kenneth_lay_000_1_1_1_1.pst (1,460)

Filtered Items

All Items (1,460)

Email (1,221)

Calendar (0)

Contacts (0)

Documents (196)

Spreadsheets (25)

Presentations (9)

Drawings (9)

Other Documents (0)

Images (0)

Audio/Media (0)

Databases (0)

Containers (0)

System Files (0)

No Data (0)

Unrecognized (0)

Logs (0)

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Irregular Items (13)

Index and Storage (7)

Commented (0)

Internet (7)

Communications (0)

Mobile (7)

Computer (7)

Multimedia (0)

Named Entries (0)

Marked Sets

Results

Immaterial items: HideDeduplication: MDS

Name	MIME Type	Description
Lay-RFF-Energy Company.doc	application/vnd.ms-word	Energy Services in t
IWOV annual Report.pdf	application/pdf	Unknown
P004302520001110D01.pdf	application/pdf	Microsoft Word - PV
globpaper53.pdf	application/pdf	
MPR 11302001.xls	application/vnd.ms-excel	sayala; sayala
H: E-business for Energy briefing	application/vnd.ms-outloo...	Streaming Media <t
cmadis-2.doc	application/vnd.ms-word	1234; Bill Rutherfor
mime001.txt	application/pdf	
P004484220001201D01.pdf	application/pdf	Microsoft Word - PV
Preliminary Programme - Energy Governors	application/vnd.ms-outloo...	"rosalee Fleming"; "r
MPR 12102001.xls	application/vnd.ms-excel	sayala; sayala
MPR 10252001.xls	application/vnd.ms-excel	sayala; sayala
MPR 10262001.xls	application/vnd.ms-excel	sayala; sayala
MPR 12212001.xls	application/vnd.ms-excel	sayala; sayala
P011928720001124D01.pdf	application/pdf	
ng010611.pdf	application/pdf	ng061101.qxd; ng
October 2000 e-EFFICIENCY NEWS - New Issue!	application/vnd.ms-outloo...	owner-e-fficiencyn
Cal--fixing whats broken.doc	application/vnd.ms-word	California is only hal
[Unnamed Spreadsheet]	application/vnd.ms-excel	robert lawler; pfo
[Unnamed Spreadsheet]	application/vnd.ms-excel	robert lawler; pfo
[Unnamed Spreadsheet]	application/vnd.ms-excel	robert lawler; pfo
COPSS-1.TXT	application/vnd.corel-wor...	
[Unnamed Spreadsheet]	application/vnd.ms-excel	robert lawler; pfo
kudlow060701.doc	application/vnd.ms-word	Industry Name; Sus
ENRON.DOC	application/vnd.ms-word	Smith; Smith
10.08.01 Analyst Reports.doc	application/vnd.ms-word	08:36am EDT 8-O
10.06.00 Analyst Reports.doc	application/vnd.ms-word	05:44AM EDT 6-O
SEC Doc Draft 1114.doc	application/vnd.ms-word	CONFIDENTIAL; Mck
SEC Task Force Draft 04092001.doc	application/vnd.ms-word	CONFIDENTIAL; Mck
Lay-EESComments.doc	application/vnd.ms-word	Comments to EES E
FW: A Happy Landing For PGE	application/vnd.ms-outloo...	Koenig Mark <mar
kudlow102201.doc	application/vnd.ms-word	Industry Name; Sus
restructuring_CA experience revisited_SacBee_Se...	application/vnd.ms-word	Special Report: Ene
Sept21.01desk.PDF	application/pdf	Sept21.01desk.p65
10.13.00 Analyst Reports.doc	application/vnd.ms-word	08:31am EDT 13-C
6.07.01 Analyst Reports.doc	application/vnd.ms-word	08:11AM EDT 7-JL
6.04.01 Analyst Reports.doc	application/vnd.ms-word	09:11AM EDT 4-JL
10.10.00 Analyst Reports.doc	application/vnd.ms-word	08:06am EDT 10-C
2001proexternal.doc	application/vnd.ms-word	INDIA ECONOMIC SL
11.09.00 Analyst Reports.doc	application/vnd.ms-word	08:04AM EST 9-N
Saturday Articles	application/vnd.ms-outloo...	Denne Karen <kar
5.31.01 Analyst Reports.doc	application/vnd.ms-word	Compaq; Compaq
FINALGIPPER CONFERENCE CALL SCRIPT.doc	application/vnd.ms-word	SECOND QUARTER
FINALGIPPER CONFERENCE CALL SCRIPT.doc	application/vnd.ms-word	SECOND QUARTER
11.08.01 Analyst Reports.doc	application/vnd.ms-word	Moore; Moore
POWER BRIEFS - June 8, 2001	application/vnd.ms-outloo...	NewPower Commu

Displaying 1,247 items. (1,460 total > 9 immaterial items hidden > 204 duplicates removed)

Preview

IWOV annual Report.pdf

CommentSave As...Launch

Path: Evidence 1 > kenneth_lay_000_1_1_1_1.pst > Top of Personal Folders > lay-k > KLAY (Non-Privileged) > Lay_Kenneth > Inbox > Interwoven's Web Content Infrastructure in support of Enron&ar > [Unnamed Container] > [Unnamed Container] > Enron RFI.zip

Duplicates: Exact (1) Near (1)

Similar items: High (2) Medium (5) Low (36)

TextMetadataFamily (21+308)PDFBinaryWord ListDiffHistory

All Metadata

Name	Value
Nuix-defined Metadata	
File Size	1,380,352
File Type	Portable Document Format
GUID	e2fd8855-f4fb-4cda-826a-e0cea0e9...
Item Date	Wednesday, September 19, 2001 at 2:...
MDS Digest	81cba94c735d0e377867d45c50e924...
Path Name	/Evidence 1/kenneth_lay_000_1_1_1_1...
Shannon Entropy	7.906
Properties	
Application Created	Tuesday, May 1, 2001 at 10:14:38 AM...
Application Modified	Thursday, May 3, 2001 at 6:33:47 PM ...
Compressed	true
Compressed File Size	1,147,498
Compression Method	Deflated
File Modified	Wednesday, September 19, 2001 at 2:...
Name	IWOV annual Report.pdf
Page Count	80
PDF Certification Level	Not Certified
PDF Contains Annotations	false
PDF Contains Comments	false
PDF Encryption Level	None
PDF Images JPEG	92
PDF Images TIFF	1
PDF Metadata Encrypted	false

Click on a metadata entry above to show its details here.

The University of Florida is a great law school.

1. Take out “stop” words.

University Florida great law school

2. Create shingles.

University Florida great
Florida great law
great law school

3. Run through the document collection:
90%, 80%, 70% similar.

$$\text{tf}_{x,y} \times \log \left(\frac{N}{df_x} \right)$$

Search for keywords: law AND school AND Florida

1. How many documents contain "law" and how many times in each document? In Document A law apps 5 times. In the collection of 10,000 documents "law" appears in 100. Value of document A for law is $5 \times \text{Log}(10,000/100) = 5 \times \text{Log}(100) = 5 \times 2 = 10$.

2. Same for "school" and "Florida"

3. Then sum up all the values for each document to get the scores highest to lowest.



Enron_Lay_2 - Nuix

Search: Profit AND ((Loss OR gain) OR energy)

Document Navigator

Evidence (1,460/20,800 hits; 7.02%)

Enron_Lay_2 (1,460)

Evidence 1 (1,460)

kenneth_lay_000_1_1_1_1.pst (1,460)

kenneth_lay_000_1_2_1.pst (1,460)

Filtered Items

All Items (1,460)

Email (1,221)

Calendar (0)

Contacts (0)

Documents (196)

Spreadsheets (25)

Presentations (9)

Drawings (9)

Other Documents (0)

Images (0)

Multimedia (0)

Databases (0)

Containers (0)

System Files (0)

No Data (0)

Unrecognised (0)

Logs (0)

Email Attachments (239)

Emails and Loose Files (1,221)

Irregular Items (13)

Index and Storage (7)

Comments (0)

Internet (7)

Communications (1)

Mobile (7)

Computer (7)

Multimedia (1)

Named Entities (0)

Markup Sets

Languages (1,426)

Results

View by: Network Immaterial Items: Hide Deduplication: MDS

Topic keyword filter: All Topic Keywords

Max. topics (1% of results): 12 Displaying 12 topics.

Lay Kenneth

Neal nshaw@...

mshaw@chiefs.nfl.com

lyow@indiana.edu ...

gladdy@earthlink... MTeisan@aol.com M...

mike@way-wired.co... ERUN@WEBACCESS.NE...

Kenneth L. Lay

doctorbonner@alta... skinnerj@central...

aprilhoov... randymonk@hotmail...

Beck Sally

Ayal

Buy Rick

steven j kean

rob bradley kenneth lay lisa iannotti

Davis Elizabeth

Preview

IWOV annual Report.pdf

Comment Save As... Launch

Path:

Evidence 1> kenneth_lay_000_1_1_1_1.pst

Top of Personal Folders> lay-k> KLAY (Non-Privileged)

Lay, Kenneth> Inbox

Interwoven's Web Content Infrastructure in support of Enron'

oledata.mso> [Unnamed Container]> [Unnamed Container]

[Unnamed Container]> Enron RFI.zip

Duplicates: Exact (1) Near (1)

Similar items: High (2) Medium (5) Low (36)

Text Metadata Family (21+308) PDF Binary Word List Diff History

Name Value

Nuix-defined Metadata

File Size 1,380,352

File Type Portable Document Format

GUID e2fd8855-f4fb-4cda-826a-e0cea0e9...

Item Date Wednesday, September 19, 2001 at 2:...

MDS Digest 81cba94c735d0e377867d45c50e924...

Path Name /Evidence 1/kenneth_lay_000_1_1_1_1...

Shannon Entropy 7.906

Properties

Application Created Tuesday, May 1, 2001 at 10:14:38 AM...

Application Modified Thursday, May 3, 2001 at 6:33:47 PM ...

Compressed true

Compressed File Size 1,147,498

Compression Method Deflated

File Modified Wednesday, September 19, 2001 at 2:...

Name IWOV annual Report.pdf

Page Count 80

PDF Certification Level Not Certified

PDF Contains Annotations false

PDF Contains Comments false

PDF Encryption Level None

PDF Images JPEG 92

PDF Images TIFF 1

PDF Metadata Encrypted false

Click on a metadata entry above to show its details here.

Enron_Lay_2 - Nuix

Search: Profit AND ((Loss OR gain) OR energy)

Document Navigator

Evidence (1,460/20,800 hits; 7.02%)

Enron_Lay_2 (1,460)

Filtered Items

All Items (1,460)

Network

View by: Network Immaterial items: Hide Deduplication: MDS

Topic keyword filter: All Topic Keywords

Max. topics (1% of results): 12 Displaying 12 topics.

Lay Kenneth

Neal nshaw@...

mshaw@chiefs.nfl.com

lyow@indiana.edu ...

gladdy@earthlink... MTeisan@aol.com M...

mike@way-wired.co... ERUN@WEBACCESS.NE...

Kenneth L. Lay

doctorbonner@alta... skinnerj@central...

aprilhoov... randymonk@hotmail...

Beck Sally

Ayal

Buy Rick

steven j kean

rob bradley kenneth lay lisa iannotti

Davis Elizabeth

Preview

IWOV annual Report.pdf

Path:

Evidence 1* kenneth_lay_000_1_1_1_1.pst

Top of Personal Folders* lay-k* KLAY (Non-Privileged)

Lay, Kenneth* Inbox

Interwoven's Web Content Infrastructure in support of Enron'

oledata.mso [Unnamed Container] [Unnamed Container]

[Unnamed Container] Enron RFI.zip

Duplicates: Exact (1) Near (1)

Similar items: High (2) Medium (5) Low (36)

Text Metadata Family (21+308) PDF Binary Word List Diff History

Name Value

Nuix-defined Metadata

File Size 1,380,352

File Type Portable Document Format

GUID e2fd8855-f4fb-4cda-826a-e0cea0e9...

Item Date Wednesday, September 19, 2001 at 2:...

MDS Digest 81cba94c735d0e377867d45c50e924...

Path Name /Evidence 1/kenneth_lay_000_1_1_1_1...

Shannon Entropy 7.906

Properties

Application Created Tuesday, May 1, 2001 at 10:14:38 AM...

Application Modified Thursday, May 3, 2001 at 6:33:47 PM ...

Compressed true

Compressed File Size 1,147,498

Compression Method Deflated

File Modified Wednesday, September 19, 2001 at 2:...

Name IWOV annual Report.pdf

Page Count 80

PDF Certification Level Not Certified

PDF Contains Annotations false

PDF Contains Comments false

PDF Encryption Level None

PDF Images JPEG 92

PDF Images TIFF 1

PDF Metadata Encrypted false

Click on a metadata entry above to show its details here.



Search: Profit AND ((Loss OR gain) OR energy)

Document Navigator

Evidence (1,460/20,800 hits; 7.02%)

Enron_Lay_2 (1,460)

Evidence 1 (1,460)

keneth_lay_000_1_1_1_1.pst (1,221)

keneth_lay_000_1_2_1.pst (1,337)

Filtered Items

All Items (1,460)

Email (1,221)

Calendar (0)

Contacts (0)

Documents (196)

Spreadsheets (25)

Presentations (9)

Drawings (9)

Other Documents (0)

Images (0)

Multimedia (0)

Databases (0)

Containers (0)

System Files (0)

No Data (0)

Unrecognized (0)

Logs (0)

Enron_Lay_2 - Nuix

Results

General

Results

Thumbnails

Per-Day Timeline

Timeline

Statistics

Files

Addresses

Words

Shingles

Topics

Visualisations

Event Map

Network

Map

No date filter

Jan 1, 1980

Jul 27, 2013

Clear

Adv...

Preview

IWOV annual Report.pdf

Comment

Save As...

La...

Path:

Evidence 1

keneth_lay_000_1_1_1_1.pst

Top of Personal Folders

lay-k

KLAY (Non-Privileged)

Lay, Kenneth

Inbox

Interwoven's Web Content Infrastructure in support of Enron

pledata.mso

Unnamed Container

Unnamed Container

Unnamed Container

Enron RFI.zip

Duplicates:

Exact (1)

Near (1)

Similar items:

High (2)

Medium (5)

Low (36)

Text

Metadata

Family (21+308)

PDF

Binary

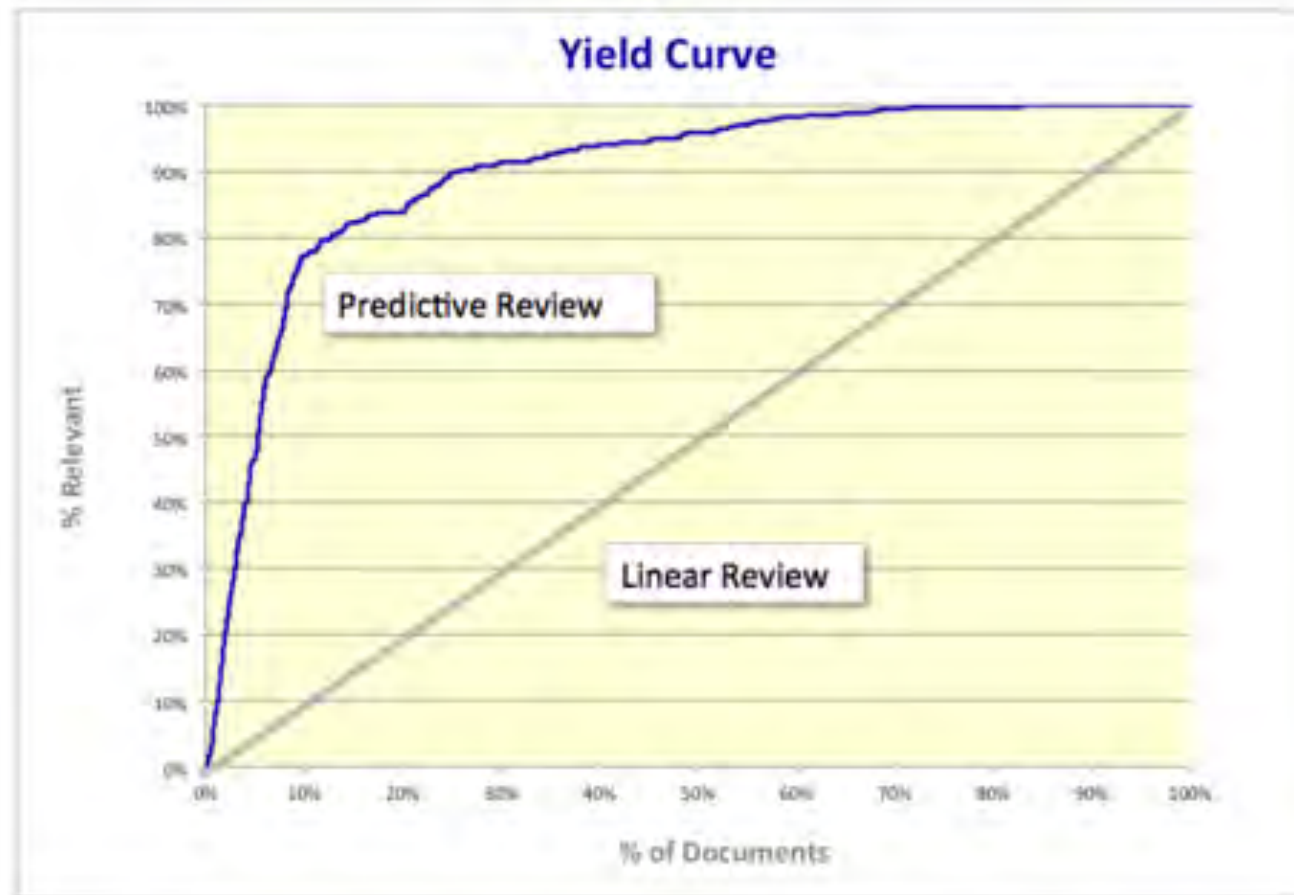
Word List

Diff

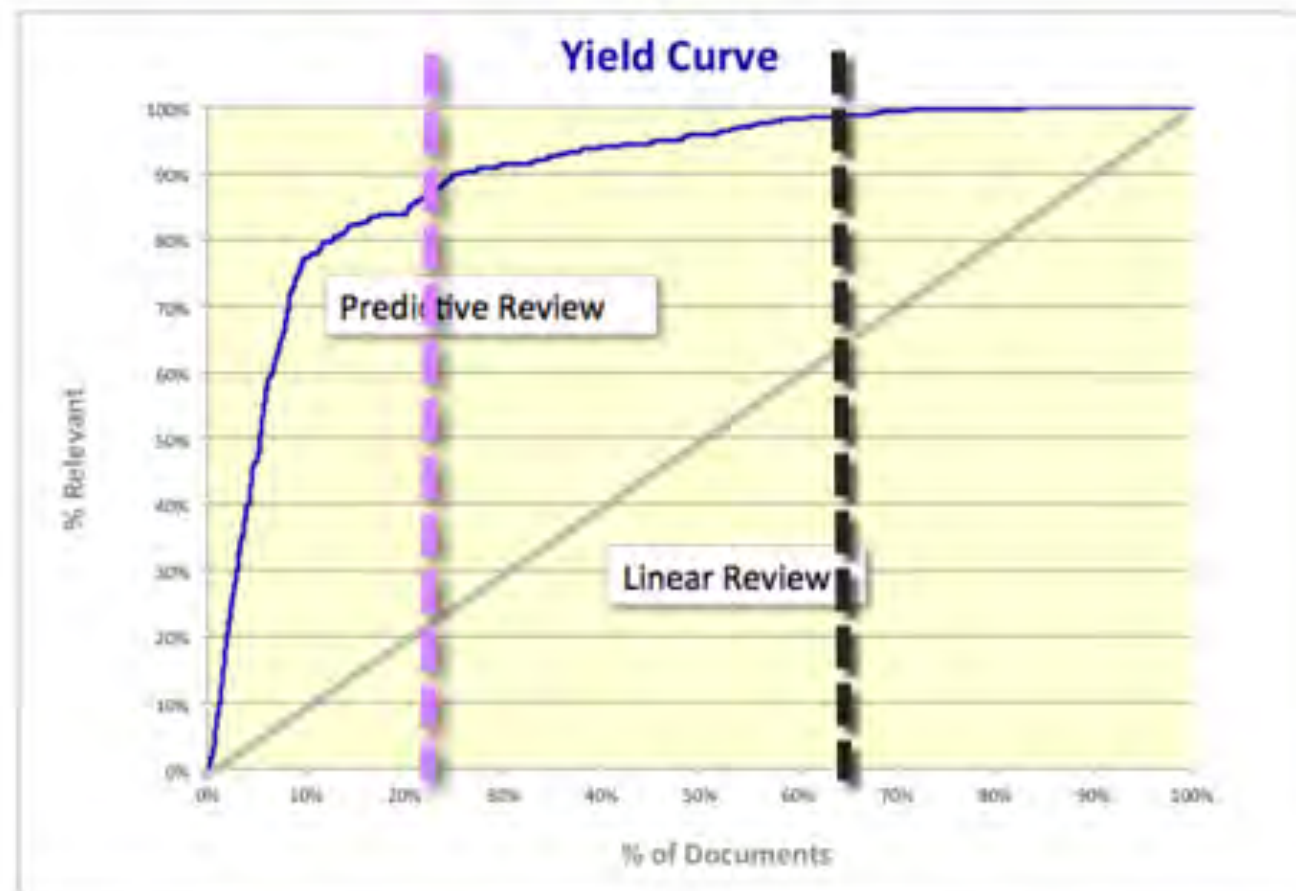
History


All Metadata

Name	Value
Nuix-defined Metadata	
File Size	1,380,352
File Type	Portable Document Format
GUID	e2fd8855-f4fb-4cda-826a-e0cea0e9
Item Date	Wednesday, September 19, 2001 at 2:
MD5 Digest	81cba94c735d0e377867d45c50e924
Path Name	/Evidence 1/keneth_lay_000_1_1_1_1
Shannon Entropy	7.906
Properties	
Application Created	Tuesday, May 1, 2001 at 10:14:38 AM
Application Modified	Thursday, May 3, 2001 at 6:33:47 PM
Compressed	true
Compressed File Size	1,147,498
Compression Method	Deflated
File Modified	Wednesday, September 19, 2001 at 2:
Name	IWOV annual Report.pdf
Page Count	80



TAR for Smart People, Catalyst Repositories



A dark, moody background image for the conference banner. It shows a person's hands holding a smartphone, with a laptop keyboard visible on the left and a pair of scales of justice in the center. The text is overlaid on this image.

6TH ANNUAL UF LAW E-DISCOVERY CONFERENCE

E-DISCOVERY: THE CRITICAL FIRST STEPS

Thursday, March 29, 2018 | 8:00 AM to 5:30 PM

Gainesville, FL and Livestream

THANK YOU AND QUESTIONS



William F. Hamilton
Legal Skills Professor
Levin College of Law
University of Florida

hamiltonw@law.ufl.edu