



# Documents - Physical, Digital, or Both? A Framework for Evaluation

ARMA Atlanta Chapter  
17-Feb-2009

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## Goals

Explore the dynamics of physical and digital document management solutions and create a framework that allows you to evaluate the benefits of digital documents. There will be an overview of the basic concepts, a survey of the core capabilities you will need, and examples of successful applications.

Key topics discussed will include:

- Physical and digital storage
- Scanning and data capture
- Cost and Value

In this presentation we are addressing documents, not necessarily records. Think about how this discussion would be different if the focus were records.



The logo for Recall, featuring the word "recall" in a bold, blue, sans-serif font with a trademark symbol (TM) to the upper right.

- We manage the secure storage, retrieval and destruction of physical and digital information for customers worldwide
- 5 continents, 22 countries, 300 locations
- 4,500 employees 80,000 customers
- Global services, processes, and systems
- Industry leader, committed people, best practices
- Recall world headquarters – Atlanta, Georgia
- Subsidiary of Brambles Limited, Australia



## Why are we talking about this?

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Everybody is 100% digital now, we all work in a paperless office, right?

There are important differences between digital and paper:

- Cost
- Ease of use, suitability to the task
- Legal status, originality, regulations
- Distribution, access
- Maintenance, retention

...To help you MAKE INFORMED, FACT BASED DECISIONS.

# Let's put this to a test

How do you answer...

**recall**<sup>™</sup>

**Should we eliminate  
offsite storage and  
digitize everything?**

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## Eliminate offsite storage

- Should we scan everything so you don't have to pay for offsite storage?
  - Any requirements for retention of originals?
    - Wet signatures
    - Intrinsic, tangible, negotiable value
- Scanning could cost you 10x more than a year of physical storage
  - I don't care if you store it yourself or use a vendor
  - I don't care if you scan it yourself or use a vendor
  - One cost isn't materially different from another's, it's not about price

Physical storage costs aren't the only costs...

- Activity during the document's life
- Permanent removal / out fees
- Secure Destruction fees

Scanning costs aren't the only costs...

- Indexing
- Storage / Control / Access
- Software application?
- Media conversion (over time)?
- Secure Destruction fees

# Do the math

Assume typical industry pricing, process 1 carton, about 2,000 pages, and store for 7 years...

Physical		Digital	
Transportation	\$ 10.00	Transportation	\$ 10.00
Cartons	1	Cartons	1
Months/yr	12	Pages	2,000
Storage/mo	\$ 0.35	Scanning/page	\$ 0.08
		Scanning Cost	\$ 160.00
		Pages/file	50
		Files/carton	40
		Index/file	\$ 0.25
		Index Cost	\$ 10.00
		Image (mb)	0.05
		Total storage (mb)	100
Storage cost(carton/yr)	\$ 4.20	Storage cost (gb/yr)	\$ 2.00
Years	7	Years	7
Storage Cost	\$ 29.40	Storage Cost	\$ 1.40
Perm Out	\$ 2.00	Software	\$ -
Destruction	\$ 5.00	Destruction	\$ -
<b>TOTAL</b>	<b>\$ 46.40</b>	<b>TOTAL</b>	<b>\$ 181.40</b>

Assume:

- \$10 transportation
- 2000 pages per carton
- \$0.08 per page to scan
- 50kb per page to store
- \$2/gb/year digital storage
- \$0.00 software cost
- \$0.25 per document to index
- 50 pages per document
- \$0.35/month physical storage
- \$2.00 carton perm-out
- \$5.00 carton destruction

Scanning inactive documents is NOT likely to lower you costs

## Overview – Physical Documents

- Active / Files
- Archive / Cartons
- In house / Easy access
- Offsite / Low cost



### Key attributes:

- Volume [ Existing storage + add – destroy ]
- Access [ Access ] & [ Unique / Cumulative Access ]

+ No conversion cost  
+ Very reliable, easy to use

o Original can only be in 1 place at a time

- Physical shipping is costly  
- Access control / audit is difficult  
- No provision for loss or damage



# Overview – Digital Documents

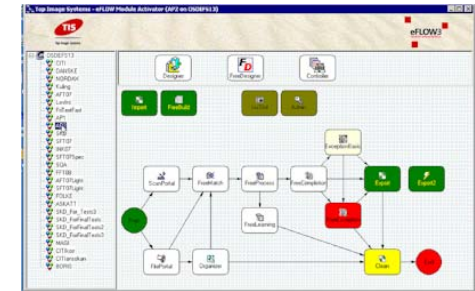
- Many different sources and types
- Most often transactional
- Ability to capture data

## Key attributes:

- Volume [ Conversion->Add + Storage - destroy ]
- Transaction [ Data Capture ]
- Access [Cumulative Access] & [ Archive Access ]

+ Rapid, multiple access  
 + Any time, anywhere  
 + Rides for “free” on existing infrastructure  
 + Easy audit, replicate, DR

- Costly conversion process  
 - Loss of fidelity, status  
 - Technology support system can fail



## Digital Capabilities

- Document handling, mailroom, file prep, sorting, etc.
- Scanning and document conversion, capture print streams, web forms
- Data capture, manual data entry, Optical Character Recognition (OCR), data transformation
- Content Management software application
  - Hosting of images and other digital documents
  - Search
  - Presentation tools
  - Workflow and other Business Process Management (BPM) capabilities



# Techniques, Buzzwords, Standards

- Prep – sort, organize, remove staples, tape, repair
- Coversheets, patch codes, inserts
- File Format - Standard?
  - 200dpi TIFF G4
  - PDF, PDF-A
- Simplex, Duplex, blank page deletion
- Deskew, threshold, crop
- Key – From image, from original
- Edit rules
- Table lookup
- OCR, structured, semi-structured, unstructured
- XML, CSV
- Backfile



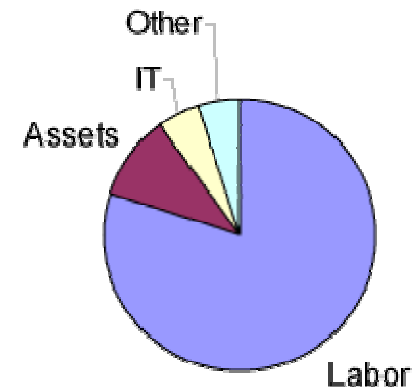
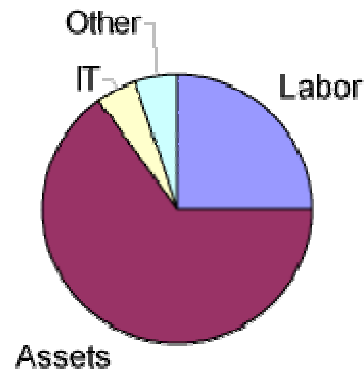
# Cost Drivers

## Physical Documents

- Labor to setup files
- Materials costs, folders
  
- Materials handling – shelves, racking
- Real Estate, space
  
- Transportation
- Transactional labor
- Inventory control system

## Digital Documents

- Labor to setup files
- Scanning labor & equipment
  
- Data capture labor & software
  
- Content Management application
  - IT labor - configuration, support
  - IT infrastructure, servers, storage



# Value Drivers

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## Physical Documents

- Compliance
- Control
- Minimize business risk
- Preserve institutional knowledge
- Support business process
  
- Fit solution to minimize cost

## Digital Documents

- Drive a business process
- Reduce data capture cost
  - Automation
  - Labor arbitrage
- Access to documents
  - Frequent
  - Multiple locations
- Enforce business rules
- Transparency into business process
- Business continuity

## So, where is the Digital value?

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Scanning is an enabler that allows you to \_\_\_\_\_ your documents.

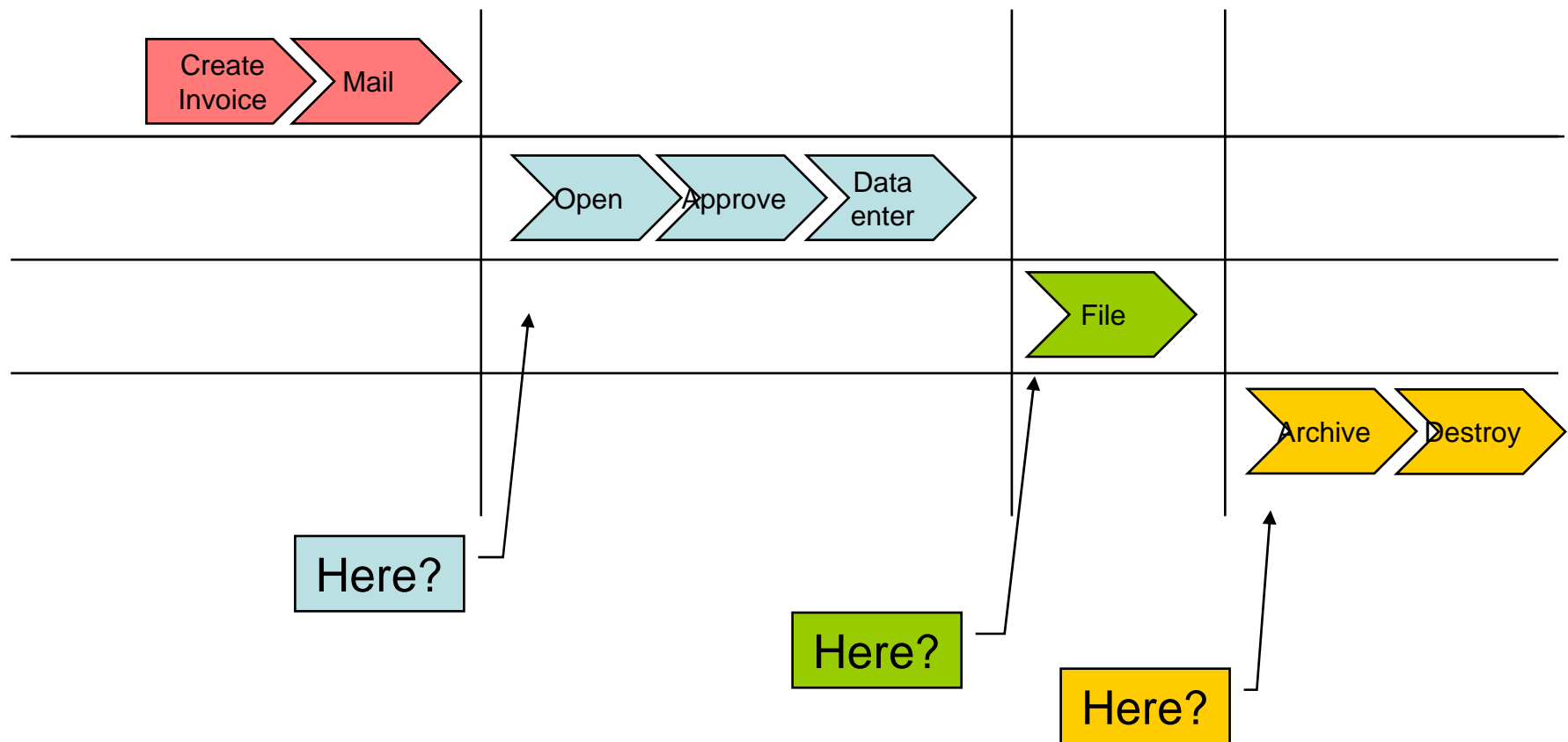
- Efficiently capture information
- Access, share, automate a business process
- Reduce business risk, improve process transparency, audit

**Scanning alone  
seldom delivers value.**

# Where is the right place to digitize?



## Accounts Payable Process Map



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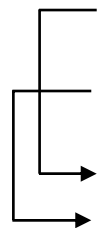


# Accounts Payable example



- Simple AP Invoice processing (5k invoices/mo)
- Industry estimates set manual processing costs from \$3.00 to \$5.00 per invoice (Benchmark by The Hackett Group and the American Institute of Certified Public Accountants)

	Receive	Process	File	Archive	Destroy	TOTAL
Manual	\$0.05	\$3.11	\$0.21	<b>\$0.06</b>		\$3.43
Digital Back-end	\$0.05	\$3.11	<b>\$0.36</b> (scan, index, store 3 yrs)			\$3.52
Digital Front-end	<b>\$1.84</b> (receive, scan, data capture, process, store 3 yrs)					\$1.84



Back-end=Digital *after* the business process is complete  
 Front-end=Digital at the *start* of the business process



## Archive document and back end value

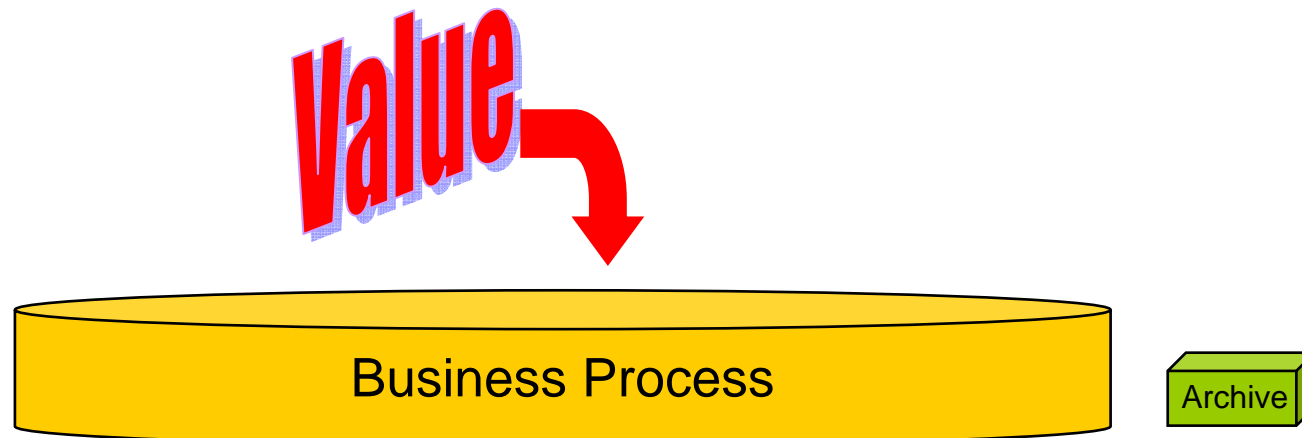
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- Driven almost exclusively by access
  - Typically you need to access the same document 2 or 3 times to get value from digitization
  - Low volume prevents significant labor and process efficiencies
- Difficult to get value with unstructured content
  - Low volume makes Content Management applications difficult to justify
  - Quality is difficult to maintain
- “On Demand” services don’t deliver much value
  - Often the transportation savings are offset by the cost of scanning
- Aggressive destruction is not often possible, you end up with both physical and digital copies of the same documents



## The value is in the business process

- You need to have a basic understanding of the business process to help your users/clients/peers to realize value from technology like scanning
- The value is unlikely to come from archiving inactive documents



- However, do you think that a formal records management would benefit from a well defined business process with digital documents? **SURE!**



You need physical and digital strategy...

... aligned with your organizational goals and business needs.

Which is the *most* important to your organization?

- The safety and security of your documents
- Legal, regulatory, business compliance
- Requirements to retain or destroy documents
- Accuracy, integrity
- Per document cost - transactional cost, retention cost

Active documents present two opportunities to add value:

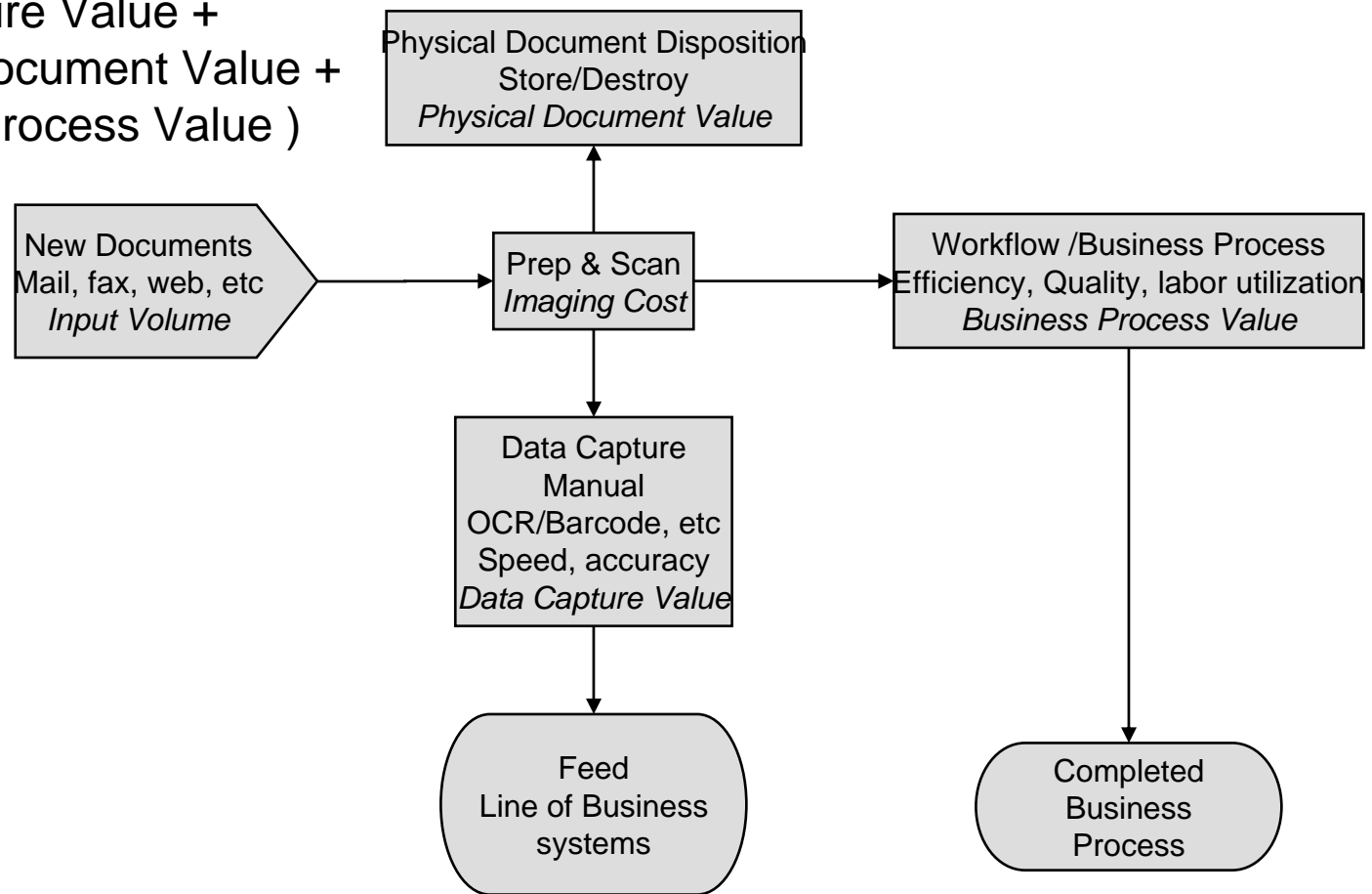
1. Capture data to feed a business process (applications, forms, invoices)
2. Provide accessibility (workflow, collaboration)



# Active document front end framework



$$\begin{aligned} \$\text{Value} &= \text{Input Volume} * \\ & ( \text{Imaging Cost} + \\ & \text{Data Capture Value} + \\ & \text{Physical Document Value} + \\ & \text{Business Process Value} ) \end{aligned}$$



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## Hybrid solutions

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### High value applications for digital documents

- Feed line of business systems with data capture
- Automate a business process
- Provide multi-user, simultaneous access to documents
- Eliminate filing and physical storage

### High value applications for physical documents

- Documents of intrinsic value
- Regulatory and business requirements for originals
- Long-term (> 5year) retention
- Documents unlikely to be accessed more than once

Should physical and digital retention be identical? Maybe not.

Is there a case for...



# Digital Archive? YES!

Born-digital documents

- Statements
- Email
- Web content

Can you overcome the cost of scanning and indexing to provide a digital archive environment for inactive paper documents?

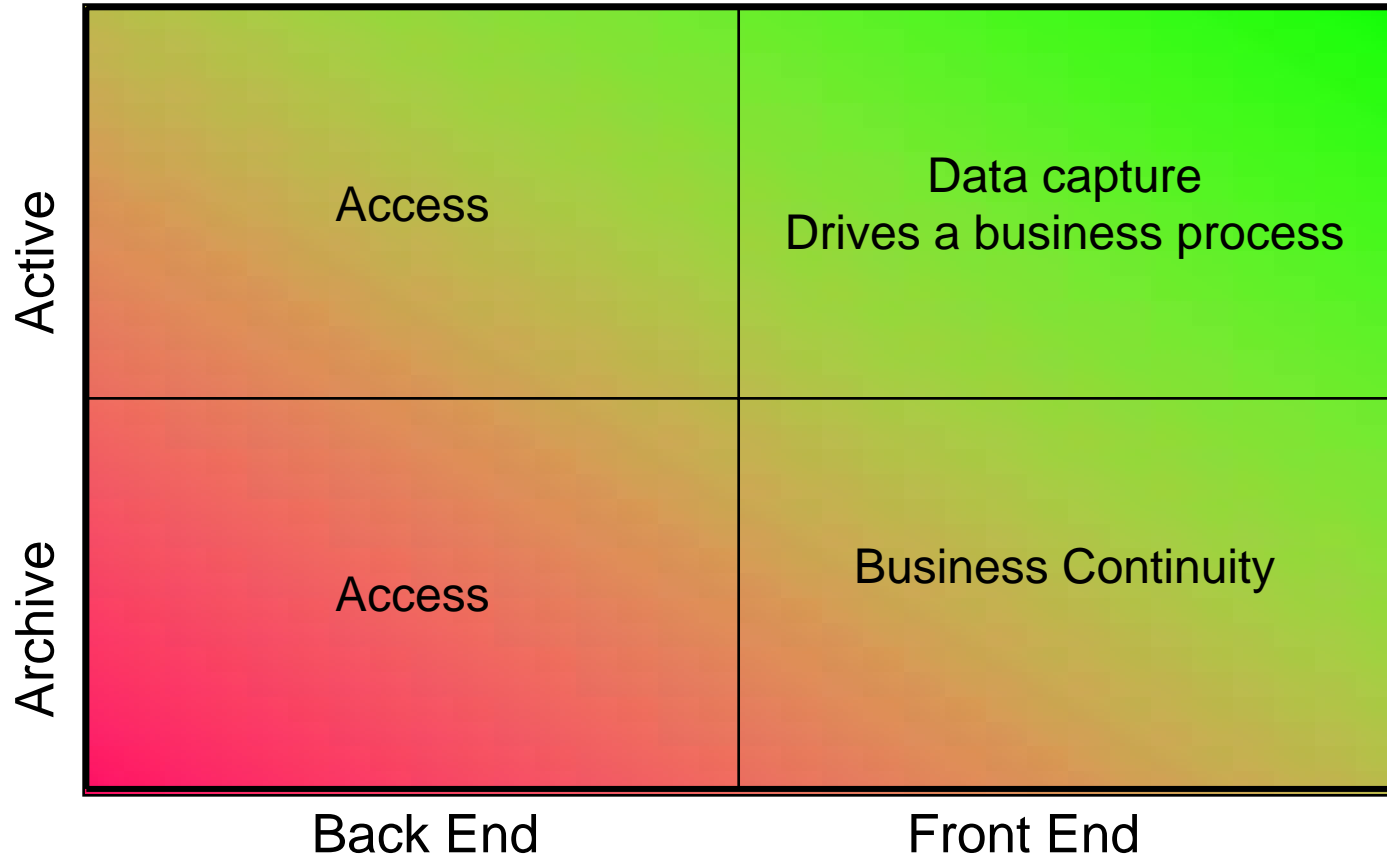
Probably not



# Value Drivers



## Value Drivers



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## Destruction

- Do you manage destruction independent of storage media?
  - Physical and digital copies destroyed together
  - Retain digital working copies, destroy paper originals
- Does your litigation hold apply to information independent of storage media?
  - For a held record, Is it OK to preserve a digital copy and destroy the paper original?
- Do you have standards when you destroy physical documents?
  - Requirements like cross cut, 3/4" cut, pulverize, incinerate
  - Affidavit or certificate of destruction
- What about digital destruction?
  - Delete the files? Aggressive overwrite? More?
  - All copies, backups, mirrors, temporary copies?
  - How do you document this?



## In summary

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Physical, Digital or both? How to decide?

Understand and evaluate the:

- Cost, value
- Different physical and digital advantages
- Difference between
  - Front end / Back end
  - Active / Archive
- Framework for evaluation considers:
  - Costs for digitization: scanning, data capture, Content Management application, digital storage
  - Savings/Value from digitization: efficient data capture, rapid, multi-use access, business process automation, transparency & audit, business continuity

Thanks for your time and attention



For more than 30 years, Recall has focused on continuously improving our quality service, so that today we help companies effectively and securely manage and use information throughout its life cycle. We've done this by building quality into our life cycle information management offerings — from document management to data protection to information destruction. Recall employees deliver unequalled performance to you, day in and day out. No matter what corner of the world your business is in, you'll benefit from the consistent quality Recall delivers through standard operating procedures, global service menus, passionate employees, best-of-breed technologies, and total quality improvement program — Perfect Order.

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