



Artificial Intelligence, Machine Learning and Content

Tim Collins

box

HiMSS

CENTRAL & SOUTHERN OHIO *Chapter*

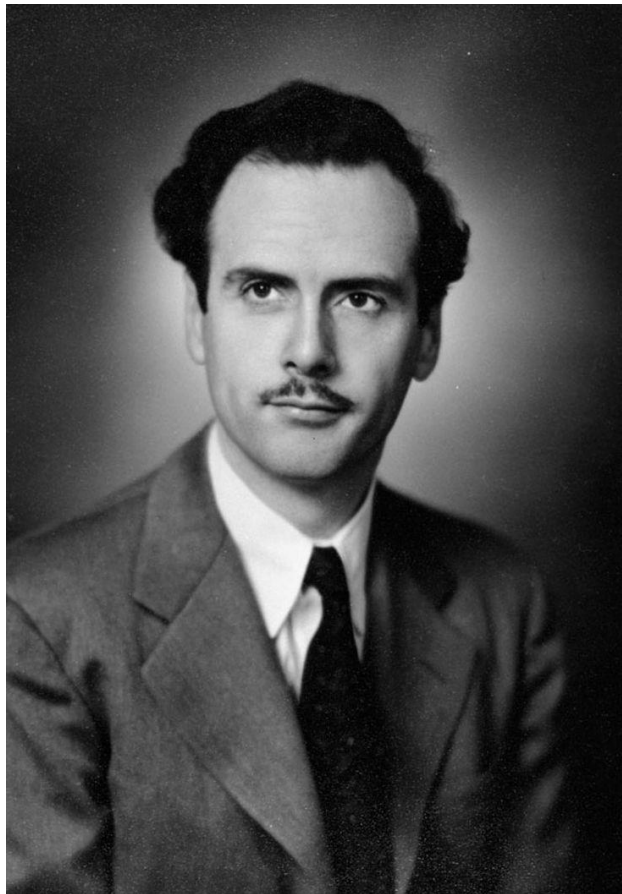
Digital Disruption and Transformation

“We’ve got to get from the exam table to the kitchen table. At the kitchen table, you learn about the real existence of an individual and how it impacts their life.”

Mark T. Bertolini
Chairman and CEO Aetna



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“The medium is the message”

Marshall McLuhan:
Understanding Media the Extensions of Man
1964 Mentor, New York

**Businesses today face an explosion of
content**

Businesses today face an explosion of content

800%

increase in the amount of data in the
enterprise by 2021

80%

of that data will be in unstructured
formats (documents, images, etc.)

Source: Gartner

The explosion of content creates real business challenges

Employee productivity

Employees spend valuable time searching for information to do their jobs and recreating content that already exists, much of which is never consumed

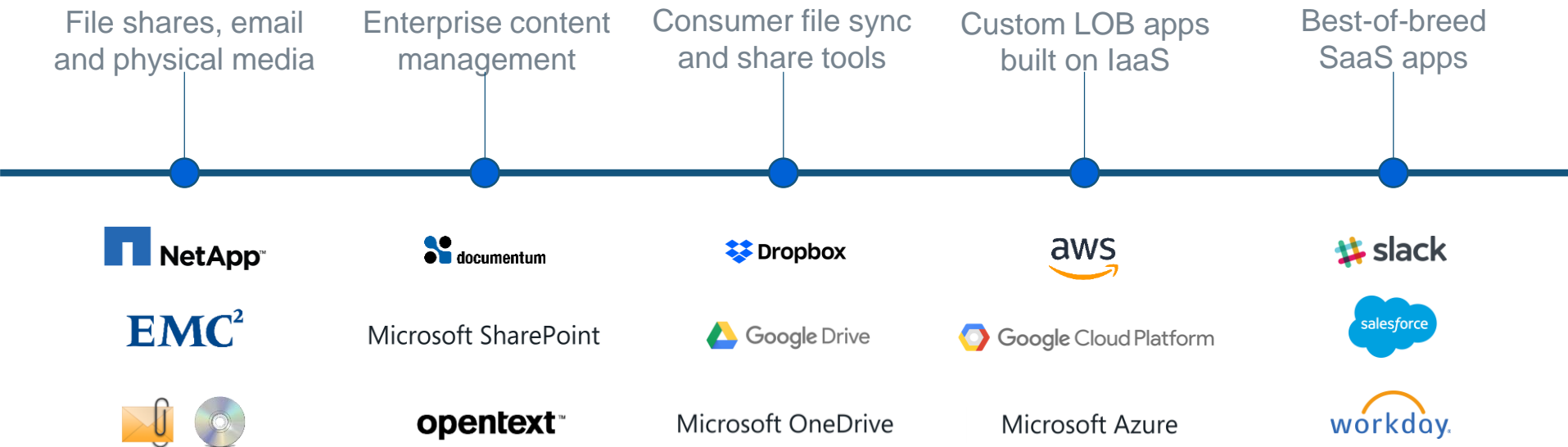
Business process efficiency

Content-centric business processes are mired in manual reviews and mundane data entry, which is time consuming and error prone

Security and compliance risk

User-driven classification of confidential or sensitive information is prone to errors and regulation puts pressure on how information is managed and secured

This problem only gets worse when content is fragmented



As a result, businesses invest in expensive and manual methods for tagging, classifying, and extracting data from all their content

**But artificial intelligence can help
solve this problem at scale**

Leading technology companies offer powerful AI services

- Keyword and topic extraction
- Speech-to-text transcription and translation
- Image classification and labeling
- Text and handwriting recognition
- Celebrity and landmark recognition
- Sentiment analysis
- Facial and emotion recognition
- Object, scene, and activity detection
- Explicit or offensive content moderation
- ...and many more

IBM **Watson**[®]



Google Cloud Platform

Example Skills Metadata Enhancement (Audio Data)

Transcript

0:01 Agent: Hi, this is C.S.V. shipping company. Bryon speaking how can I help you?

0:05 Caller: Bryon This is Henry A that we spoke earlier about a quote from you guys and I NEED THIS, I NEED SOMETHING stepped outside the company.

0:14 Agent: OK, Great, Yes, Henry, I do remember you have this pinball machines and you.

0:22 Caller: Machine ship.

0:24 Agent: Very cool. OK. Do you

Topics

reference number credit card
operator forklift pinball
address dollars reference
canada

Sensitive Information Detected

PCI



SSN



Agent Activity

Agent Greeting: Yes

Address Confirmed: Yes

Asked for Payment: Yes

Proper Closing: Yes



Appointment Status

Appointment Made: No (4.19%)

Call Metrics

Caller Talk: 41.64%



Agent Talk: 69.09%



Agent Overtalk: 0.00%



Caller Overtalk: 8.53%



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Apply AI from major vendors to content

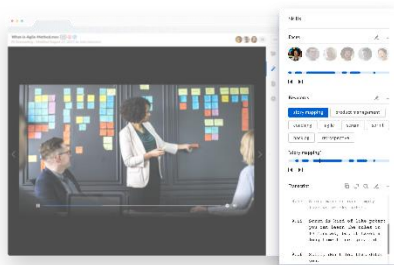


01837476.MOV

File is uploaded and sent to AI provider



IBM **Watson**[®]



Rich insights are written back to the content



 Microsoft
Azure


Google Cloud Platform

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Apply best-of-breed AI to your content

Apply AI across your business

Productivity

Make content more discoverable and increase engagement with content

- Improve discoverability by applying keywords and labels to rich media
- Display rich insights to end users with an interactive preview experience

Process

Automate legacy data entry and classification and trigger content-centric processes

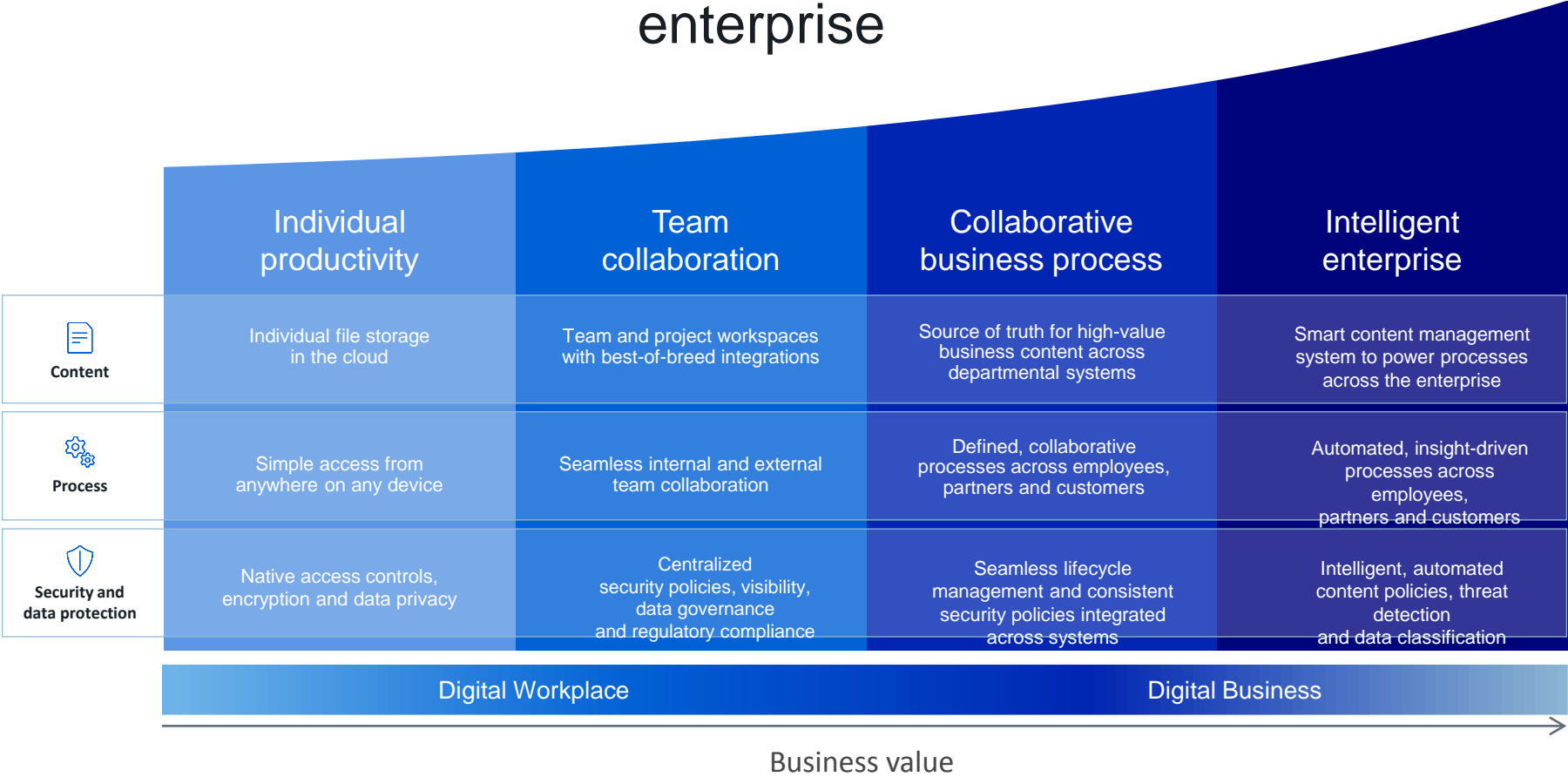
- Sort and categorize ingested content and apply labels
- Extract key information from forms or documents and store in custom metadata

Security

Automate data classification and detection and trigger security policies

- Classify content that contains sensitive or confidential information
- Trigger intelligent virus scanning upon upload

Content powers digital transformation across the enterprise



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