The unstructured data imperative:

Why enterprises need to act now

The Unstructured Data Company

INDICO DATA

85% of all data in large enterprises is unstructured. Think of all you're missing.

It's time to address the 175 zettabyte elephant in the room. While robotic process automation (RPA) and other forms of intelligent automation technology have unleashed a torrent of activity and conversation about the role of artificial intelligence in transforming the enterprise, most organizations and their vendors shrink back from the subject of unstructured data. Worse, they're often resigned to the fact that unstructured data has historically been too complex and difficult to meaningfully ingest and make actionable.

As its name implies, unstructured data by its nature does not follow an established format or model, making it challenging to search and analyze. It can be generated by humans or machines. It can be text based, or not. Examples range from business documents such as invoices, contracts, emails and call center transcripts, to rich media such as photos, videos and audio files.

By avoiding their critical mass of unstructured data, enterprises risk this elephant inevitably rising up and crushing them. Consider the weighty facts about the expanding universe of unstructured data:

- Most experts estimate that between 80% to 90% of the world's data is unstructured

- About 90% of it has been created in the last two years alone, and just 0.5% is analyzed and used today[1]

- The amount of unstructured data is projected to explode on a monumental scale: according to research firm ITC, the volume of unstructured data is set to grow 136.5% in the next several years (from what was 33 zettabytes in 2018 to 175 zettabytes in 2025; that's 175 billion terabytes!)

Big data has been mission critical for nearly a decade in document-intensive organizations such as financial services firms, insurance providers, and real estate brokerages. But today, facing the unprecedented data proliferation, as well as other intensifying factors this eBook will address, the unstructured data imperative for these companies is greater than ever. As they fail to capitalize on what could be their most valuable assets, the risks and opportunities are becoming too great to ignore.

> Organizations can harness **a lot of value by leveraging the latent potency and power of semistructured and unstructured data** – hidden as threaded emails, images, audio, video, blogs and content management systems that make up a major chunk of the data available to an organization."[3]
>
> – Gartner

The longer enterprises wait to act, the worse the challenges will become. Those who don't heed this imperative risk finding themselves in regulatory non-compliance or left in the dust by competitors. Fortunately, as this eBook will explore, new advances in deep learning algorithms and AI platforms are making unstructured data not only actionable, but unlocking tremendous benefits for enterprises of all types, such as driving out cost and risk, expanding margins and accelerating revenue, and elevating customer experience.

Read on to discover how enterprise automation leaders, their centers of excellence (COE) and line of business leaders can (and must) begin to successfully leverage their unstructured data.

Risk:

What you don't know can cost you (a lot)

Application forms. Supporting documentation. Pictures and audio. Documents and data are the lifeblood of financial services, insurance, real estate and other major industries. They power everyday consumer interactions and customer experience. Unfortunately, they also pose significant threats to these organizations, especially in the case of unchecked, unmanaged unstructured data. A perfect storm of new and established challenges exacerbated by the COVID-19 pandemic pose significant risks and amplify the imperative for action.

1. Regulatory compliance

Aptly named, unstructured data is by its nature unorganized. This creates a considerable challenge when it comes to complying with the requirements of complex privacy regulations, ranging from GDPR to HIPAA and state-level personally identifiable information or personal health information (PII/PHI) laws. And, as unstructured data continues to proliferate, so does the risk.

Gartner estimates 65% of the world's population data will be impacted due to privacy regulations by 2023, up from 10% in 2020.[4] Right-to-know and right-to-be-forgotten mandates place additional burden to maintaining compliance. And the costs of non-compliance can be huge; one report suggests that financial services firms face costs of $2.5 million annually for unstructured data compliance.[5]

To make things even more complicated, data collected in compliance with consent laws could be compromised if analysis changes the nature of that data. As Mathieu Gorge, CEO of compliance specialists Vigitrust, stated in a 2019 ComputerWeekly article,[6] "Most members of the public would, for example, support the use of CCTV for public safety or theft prevention, he says. But combining video footage with, say, facial recognition and loyalty card data, would be a serious privacy breach."

2. Cybersecurity

An enterprise's unstructured data could include sensitive information, such as intellectual property, employee's personal information, or other strategic documents. This makes unstructured data incredibly appealing for hackers, thieves or other bad actors.

If an enterprise can not manage its unstructured data, it can not know what to protect. And although enterprises have faced a continually rising onslaught of incidents over the past five years, the threat has grown even greater in the past eighteen months.

Cybersecurity attacks increased significantly and immediately amid the COVID-19 pandemic – especially in the financial services actor. Last year, VMware Carbon Black's Modern Bank Heists report revealed that financial services firms faced a 238% increase in cyber attacks between February and the end of April, during the onset and global spread of the virus.[7]

3. Competition

Odds are that even if you're not taking advantage of your unstructured data, your competitors likely are beginning to leverage theirs. And that could mean significant competitive advantages for them in the future (advantages like those we will cover in the next section.

How great are the odds? At least 50/50 now, and far, far higher over the next three years.

50%+
Over half of respondents say their organizations have currently adopted AI in at least one function.

McKinsey Global Survey: The State of AI in 2020

80%
By 2022, 80% of organizations that deployed RPA will introduce AI, including machine learning and natural language processing algorithms for improving business processing activities.

Gartner Competitive Landscape: Robotic Process Automation Software

75%
By the end of 2024, 75% of companies will have moved from piloting to incorporating AI, resulting in a 5 times increase in streaming data and analytics facilities.

Gartner Top 10 Trends in Data and Analytics, 2021

> " Only enterprises that implement effective semistructured and unstructured data analysis methods to their insight-building process will see significant competitive advantages."[8]
>
> – Gartner

4. The war for talent

In March 2021, a Microsoft survey of 31,000 workers globally revealed that nearly half of the global workforce (41%) are considering leaving their jobs.[9] In April, a record 4 million people followed through and quit; followed by another 4 million in May. Dubbed "The Great Resignation," this mass movement placed job vacancies at a 20-year high. Worse, employers are facing a shortage of skilled labor to fill the roles.

Corporations from McDonald's and Walmart to Starbucks and Amazon have boosted wages or offered new incentives to drive recruitment and retention. Companies ranging from stalwarts like Nationwide Insurance and Mastercard to Silicon Valley giants Google and Facebook have moved to prolonged or even permanent work-from-home policies. But, as one Gallup report[10] shows, the exodus is not necessarily about any given industry or its pay. It's about engagement.

What does this have to do with unstructured data? Quite a lot, actually.

For employees who have been mentally or physically burned out by the pandemic, and for the many more who have reassessed their personal priorities amid a once-in-a-century health crisis, the prospect of taking or remaining in a job that does not make them feel valued or deeply fulfilled has taken its toll.

Consider data entry and data processing professionals who spend hours of their work lives keying and rekeying unstructured form data. Enterprises that don't consider how they can augment the roles of these individuals risk losing them. And, they risk being unable to recruit against other most satisfying digital jobs in software development or project management.

5. The unknown

When it comes to unstructured data, enterprises don't know what they don't know. And that presents tremendous risk on several levels.

First, as noted above, there is risk of a data security breach or regulatory non-compliance, both of which can lead to significant financial loss or damage to a brand's reputation. Consider CapitalOne's breach in 2019, which affected 100 million customers across North America; cost the firm $150 million[11], including paying for credit monitoring for affected customers; and resulted in the company's stock dropping 6% following the incident's announcement.

Less obvious can be the uncalculated costs of growing process inefficiencies and lost productivity. Consider the thousands of work hours spent on manual data processing that could be accelerated or eliminated – and the value created, not to mention errors reduced – by empowering teams with unstructured data automation technologies.

At the same time, to remain competitive in their markets and attractive on The Street, enterprises need to act now. Or else, they'll be forced to face the music when digital disruptors steal share and outshine them thanks to their impeccable expense ratios.

Walk the data-driven talk

"We are a data company."

"Our data is our most valuable asset."

These mantras permeate the mission statements and annual reports of modern enterprises of all kinds, not just those whose business models are digitally native. But, if this is the case, the vast majority of so-called 'data' companies are wasting their 'most valuable asset' by leaving 85% of it untouched.

Unstructured data offers enterprises a potential goldmine of valuable insights and opportunities to drive both top line and bottom line revenue growth, as well as superior customer experiences.

Consider the power of predictive analytics for streaming services like Netflix and Spotify. In fact, by analyzing their subscriber data, Netflix and its AI algorithms have been able to influence 80% of the content viewed by its 100 million subscribers.[12]
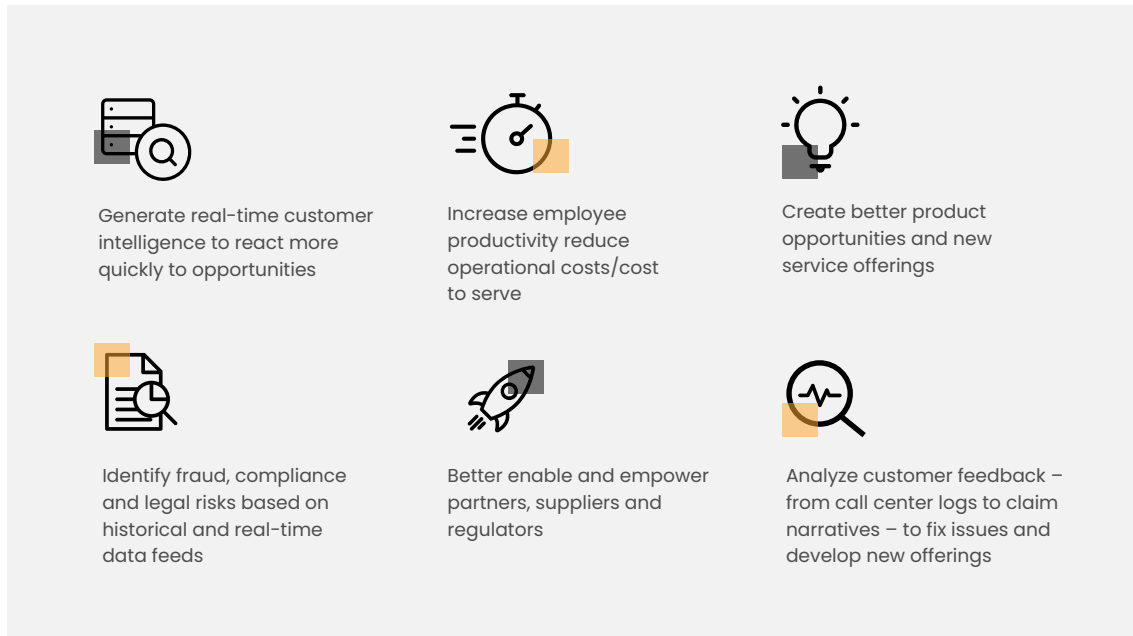
It's not only the media and entertainment that outperforms thanks to fully leveraging its data. Deloitte Insights research shows that using AI and predictive analytics has given some firms "an early lead in realizing better business outcomes, especially in achieving revenue enhancement goals."[13] AI leaders in financial services have demonstrated:

- 44% improvement in pursuing new markets, versus 24% of laggards and 8% of companies getting started.

- 60% increase in revenue versus 46% and 42% for laggards and beginners respectively.

Delottie further states that the advantage for these financial services pioneers will grow considerably if competitors do not move quickly.

Derive new value from your unstructured data

Unlike RPA or other automation technologies which deliver bottom line improvements, unstructured data can also unlock topline revenue through new product or service opportunities. Consider the unlimited ways an enterprise could leverage the untapped potential of unstructured data.

Generate real-time customer intelligence to react more quickly to opportunities

Increase employee productivity reduce operational costs/cost to serve

Create better product opportunities and new service offerings

Identify fraud, compliance and legal risks based on historical and real-time data feeds

Better enable and empower partners, suppliers and regulators

Analyze customer feedback – from call center logs to claim narratives – to fix issues and develop new offerings

Maximize existing technology investments

By structuring unstructured data, enterprises can make their data more valuable to use and leverage across its technology stack, maximizing existing investments in everything from business intelligence (BI) tools to CRMs, ERPs and more. Consider these use cases:

ERP and insurance : accelerating the underwriting process

Assume you're an insurance carrier, receiving requests for quotes from commercial brokers. You receive a raft of document bundles, each in different formats. The sooner you can get the pertinent information in front of your underwriter and respond to the opportunity – and increase your chances of winning. There's a limit to how much a human can process.

Imagine if you had unstructured data technology to immediately ingest and structure this data, reducing turnaround time and helping you win more business, more quickly.

RPA and commercial real estate : mitigating interest rate shifts

Assume you're a commercial real estate firm. Your deal desk is responsible for making sure all paperwork around a customer deal is in good order, and that it gets routed to and approved by the appropriate people. The deal review process involves people assessing a multitude of complex documents, many of them 10 to 100 pages in length.

Imagine if you had an unstructured data technology to convert these documents into a structured format, enabling an RPA tool to then enter the data into downstream customer relationship management (CRM) and enterprise resource planning (ERP) systems – and cutting deal times by more than half in the process.

CRM and consumer banking : shining a light on best practices

Assume you're a consumer bank. To assure regulatory compliance, you need to record every customer call and maintain audio recordings and transcripts, associating them with the corresponding customer account in your CRM.

Imagine if you had an unstructured data technology to review those conversations to look for not only bad or non-compliant behaviors, but to identify language or interactions that deliver positive sales or customer service outcomes. You could then take those learnings and incorporate them into your trainings, improving customer experience and sales effectiveness.

Impact:

Unlocking value from unstructured data

Enterprises have long struggled with their unstructured data. Though effective with structured data

challenges, RPA vendors and point solutions have fallen down or fallen short with traditional approaches to automation. But now, the tide is turning thanks to breakthrough deep learning technologies.

At its simplest, deep learning is a type of machine learning that simulates the behavior of the human brain, allowing it to be trained and learn from very large data sets. It can adapt and recognize patterns in unstructured data in ways that RPA can't – enabling it to take unstructured documents and then restructure them for utilization.

At the forefront of this revolution is Indico Data and its pioneering Unstructured Data Platform. Through its innovative AI and ML software, the Indico Platform allows enterprises to ingest unstructured data at massive scale and add structure, enabling them to do what's been impossible with traditional automation and analytics tools: realize the unlimited potential of their unstructured data. With the Indico Platform, enterprises can:

Automate

Automate the intake of unstructured documents, emails, CSVs, images, videos, audio and more.

Analyze

Analyze unstructured data, extracting actionable business insights and intelligence.

Apply

Apply this data, creating new application experiences to transform manual processes into automated advantages.

For the first time, Indico gives enterprises a single solution that allows them to ingest and structure a diverse range of unstructured formats – text, CSVs, videos, audio files, PDFs, contracts, emails, and much more – and gain rich insights, as well as maximize the value of their existing software investments, including RPA, CRM, ERP, analytics, and more.

Real-world success stories

At a time when only 20% of AI-enabled initiatives make it to production, Indico's approach has delivered a 97% success rate in moving customers' unstructured data projects successfully into production. From there, the business impact of the Indico Unstructured Data Platform has been immediate and pronounced. Here are just a few examples of how document- and other data-intensive enterprises in insurance, financial services, commercial real estate and more are turning their unstructured data into unlimited opportunities with Indico.
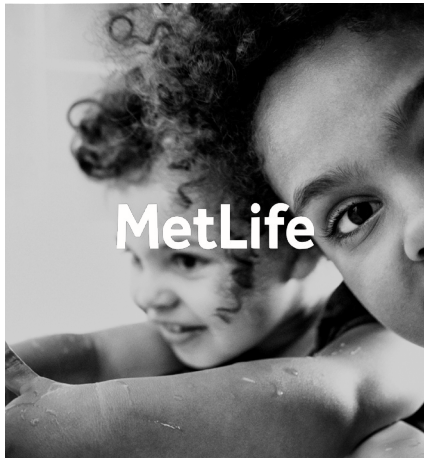
MetLife

MetLife has been leading the insurance industry for more than 150 years. Today, it's still innovating and laying the foundation for another century of success through its unstructured data. Leveraging the Indico Platform to automate the onerous and complex processes of contract analysis, invoice processing and customer onboarding, MetLife has increased subject matter experts' capacity for regulatory responses by a factor of three, reduced time to get its structured settlements in good order, and found $100M in savings that they can unlock over the next 5 years.

Top 10 U.S. Bank

Indico is helping transform one of the largest diversified financial services institutions in the United States, with assets exceeding $55 billion and serving customers with retail banking, residential mortgage, corporate and institutional banking, and asset management solutions. Document processing is core to the bank's business, and it has automated and enhanced several of its process-es with Indico – structuring and leveraging millions of unstructured documents for operations ranging from mortgage servicing and lease agreements to invoice and lock box processing and more.

Cushman & Wakefield

Cushman & Wakefield is a leading global commercial real estate firm with over 50,000 employees operating in 60 countries generating close to $7 Billion in annual revenue. A significant part of Cushman's digital transformation efforts have included a major investment in automation to drive gains in business efficiencies across the board. With Indico's platform, Cushman has freed up 12,000 hours of employee time previously spent manually reading documents and extracting data – and accelerated the turnaround time on each deal by 65%.

Waste Management

Waste Management (WM), the largest waste services company in the United States, equips its SmartTruck collection vehicles with proprietary technology to validate service to every customer, using GPS mapping and dedicated cameras to photograph or video every bin or cart serviced. Prior to Indico these images were shipped to a team overseas for manual review and classification as part of its customer invoicing. By automating the process with Indico, WM has been able to process over 2 billion images per year, reducing image analysis turnaround time by 95% and dramatically reducing its costs.

> " We've identified almost $100 million in hard value, hard dollar savings, that we can quite easily achieve over the next three to four years using unstructured data digitization and analytics tools. That just headlines how impactful this is. "
>
> – *Sean Nicolello, VP of Intelligent Automation,*

Roadmap:

Where to start with unstructured

Based on recommendations from automation leaders at some of the pioneering enterprises above and several more Indico Data customers, here are a few first steps you can take to address your unstructured data imperative.

1. Admit you have a problem

The first step to finding solutions is always admitting there's a problem. Treat unstructured data as its own category of challenges with its own set of process requirements and necessary technologies. Understand and embrace that it is uniquely difficult and that other platforms in the market typically can't address it.

By the same token, take early steps to engage your line of business and IT partners to understand their needs and make the case for change. Too often, the "tyranny of the urgent" prevents organizations from tackling big challenges or opportunities. Teams feel they're too burdened with supporting current processes that they can't dare take on initiatives that may actually drive greater impact for the future. Get everyone on board with unstructured.

2. Identify areas for automation

Leverage those conversations with business units and practice areas to develop a roster of viable problems you could solve through automation. And, don't feel that you need to take on the biggest challenges right away. In fact, many companies recommend the opposite – failing and succeeding fast with smaller projects that prove immediate impact.

Find the big unstructured data use cases; then determine the smaller question you could ask that would enable meaningful automation right away. Demonstrate feasibility, and then scale up and out.

3. Build the business case

Line of business leaders will want to understand the real-world impact of the projects you take on together. Demonstrate how your project can:

- Expand margins by driving costs out of the business through reduced time per task, cost per task, and number of tasks that require manual intervention

- Reduce risk and avoid costs of non-compliance

- Create or capture new opportunity to expand margin, accelerate revenue, monetize new data/data services or increase customer satisfaction

4. Find partners you can trust

You don't have to go it alone. Look for expert partners who understand the specifics and nuances of unstructured data, who know why it is so difficult to solve, and who have the right technologies to unlock the potential of your data and maximize your existing technology investments as well.

Ready to unlock the value of your unstructured data?

With the Indico Unstructured Data platform, big data has never been more unlimited or more powerful.
To learn more about how you can put all your data to use, request a demo and no-cost consultation at IndicoData.ai

About Indico Data

Indico Data transforms unstructured data into actionable insights. With the Indico Unstructured Data Platform™, enterprises of all sizes can automate, analyze, and apply unstructured data −− documents, emails, images, videos and more −− to a wide range of enterprise workflows. This enables them to gain rich insight and maximize the value of their existing software investments, including RPA, CRM, ERP, BI, by enabling these systems to work with unstructured data.

For more information, visit IndicoData.ai

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