

# Content Intelligence: Algorithms Assign Meaning And Value To Content

How Artificial Intelligence Technologies Help Marketers Resolve The Content Paradox

by Erna Alfred Liousas and Ryan Skinner

March 23, 2017

## Why Read This Report

Your content is dumb — the systems that store and deliver it have no inkling of what it's actually about. Tagging is, at best, unsystematic; at worst, it's absent or inappropriate. Content intelligence changes all that. This algorithmic capability automates and scales the process of establishing what content is about (down to its smallest components), what it's good for, and which customers it's for. The upshot will be the kinds of radical content personalization B2C marketers have been shooting for — and eye-popping results. This report introduces content intelligence.

## Key Takeaways

### **Content Challenges Surpass Resources**

Marketers fear that their piles of content are damaging the brand and hurting customer experience (CX). But they don't have the budget or resources to stay on top of it.

### **Content Intelligence Automates Key Tasks**

Natural language processing and image analysis, together with the computational power to support them, are at the heart of a new category of content intelligence vendors that bring marketers relief from problems and new opportunities.

### **Two Kinds Of Vendors Tackle Content Intelligence**

Content intelligence rises in importance as marketers better understand the differences between what persuades a customer and what creates momentary buzz. Because it's a layer of technology that sits across the marketing technology stack, this intelligence becomes applicable across the enterprise as brands create holistic experiences.

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## How Artificial Intelligence Technologies Help Marketers Resolve The Content Paradox

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### Related Research Documents

[Breakout Vendors: Content Intelligence For Marketing](#)

[Valuable Content Is Every Marketing Team's Job](#)

[Your Brand Needs Content Governance Now](#)

**Content Intelligence: Algorithms Assign Meaning And Value To Content**

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## The Content Paradox: Do You Choose Cost Or Volume Or Quality?

Marketing leaders grasp that today's unparalleled content opportunity hides a grave threat. Said Unilever CMO Keith Weed: "The fragmentation of brands is a massive risk . . . You see in different places that the brand isn't quite the brand, and that is a real challenge for marketers. How do you create the power of a brand, the consistency and integration across all these different voices?"<sup>1</sup> It turns out that content — the text, images, video, and audio that marketers create to win over customers — can accomplish a lot, but it can't easily organize and optimize itself. The content paradox rests on immovable forces:

- › **Content costs can't go any lower.** Producing content requires expensive people. The need for ever more content has driven brands to a desperate search for cheaper content hires. Accenture Interactive — which firms treat as a content production engine, and which was the highest-earning digital agency in 2015 — has made its fortune by getting the most from outsourcing content to lower-cost markets. But there's only so much juice you can squeeze from an outsourced or offshore lemon.<sup>2</sup>
- › **Content volumes continue to grow.** Content's growth isn't linear. New stories, new channels, new formats, and new campaigns — plus maintenance — create an escalating curve of content work. Add in all of the permutations of content that you can create or build due to granular customer understanding, and teams quickly lose the ability to stay on top of it and ensure quality. For example, the CX team from a major US automaker told us that executing on an enterprisewide product vocabulary — not in theory, but in reality — was effectively a 10-year project.<sup>3</sup>
- › **Content is dumb within content stacks.** Today, content lives where it works. Content for emails may live in Salesforce ExactTarget; for the blog, in WordPress; for the site, in Adobe Experience Manager; and for social feeds, in Sprinklr. This hurts content quality in two ways: 1) Content created in one system stays in that system and 2) each system optimizes content for its own channel delivery, not for the content's overall value to customer or brand. Fragmented content stacks are a direct threat to brand consistency.

## Content Intelligence Provides The Answer To The Content Paradox

It's not possible to solve the content paradox by doing more of what you're doing today. You must do something different using technology. We call that different thing "content intelligence," which we define as (see Figure 1):

*The use of artificial intelligence technologies to understand and capture the qualities inherent in any content — its emotional appeal, subject matter, style, tone, or sentiment, for example.*

With content intelligence solutions, marketers can:

- › **Scale their content operations.** Content intelligence allows marketers to establish rules and governance for content at a far more granular and informed level than they could by manually tagging assets. By parsing content at the subasset level — words, phrases, symbols in an image

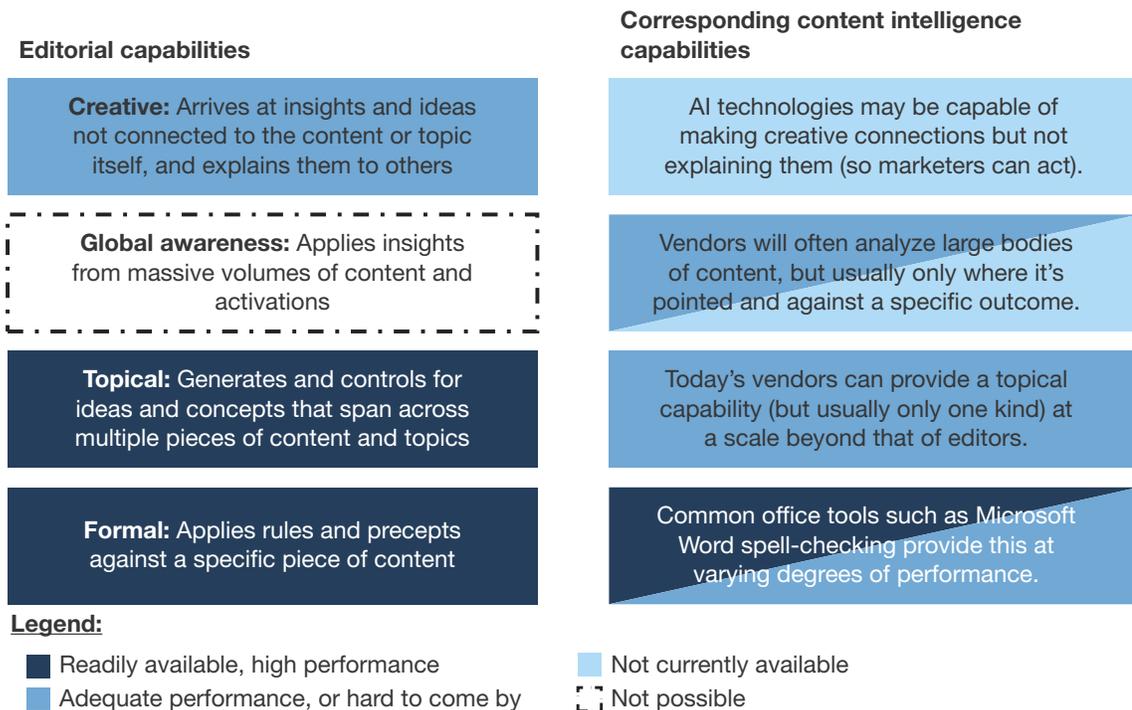
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or video — and applying structure to it, content intelligence opens up tedious manual tasks to automation and opens up new capabilities. The sum: the removal of many constraints that lay behind the content paradox.

- › **Optimize content for customer relevance.** The true “right message, right moment, right person” mantra was always out of reach to marketers, who — even when they understood the person and context — could only optimize the message against a tiny subset of labels, which they had applied by hand, often with errors, and sometimes based on outdated business rules. By vastly extending the metadata available to any part or particle of content, content intelligence allows marketers to address many new levels of contextual delivery, combine them, or apply machine learning to optimize them.
- › **Inform, even automate, content creation.** Content intelligence opens up new horizons for textual, image, and video analysis across endless amounts of content (owned by the brand or otherwise) and delivery endpoints. This intelligence can come back to the brand in one of two ways: 1) recommendations at the moment of new inspiration for a creator (for the community manager who wants to guide her tribe of brand followers, for example) or 2) automated messages. Today, a mobile messaging system might respond to a customer’s text saying they’re lost with a link to a directions page; tomorrow, it’ll just cut and send the bit of map the customer needs.

**FIGURE 1** In Most Instances, Content Intelligence Capabilities Map To Corresponding Capabilities By Human Editors



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### How Content Intelligence Solutions Work

The tremendous promise of content intelligence rests on principles that anyone can understand. They build off of easily relatable editorial principles but then extend them with machine learning or deep learning. Content intelligence solutions — that is, software and algorithms:

- › **Execute semantic or stylistic editorial tasks exponentially faster and cheaper.** Software can do many editorial jobs against vast troves of content, such as assigning appropriate taxonomy (or topic) labels to content, in a fraction of the time that it would take a human editor to do even one piece of content. At its most basic, imagine spell- and grammar-checking in word processing applications.<sup>4</sup> Provided a reference data set is available to make comparisons against, this kind of automation is possible. A business publisher uses content intelligence to automatically apply relevant topical labels to its vast stores of content, freeing up three specialists to attack other challenges.
- › **Learn which content works — and for whom — at a rate human editors can't match.** Great editors have expansive minds and rich experience, but even the best editor is unable to assess the advice that she's giving against thousands or even millions of user experiences with the content. Content intelligence can draw inferences on content's performance based on its inherent qualities and then produce and deliver variations on that content in nearly infinite variations. A major broadcaster's direct marketing team used a content intelligence technology to optimize the emotional tenor of the team's offers and saw a 22.3% lift in open rates on average, with some tests returning higher results.
- › **Create a crucial, assistive quality control layer for content stacks.** Today's content repositories are effectively post offices, sending appropriately addressed content packages where they need to go. But, like post offices, they don't care what's in the box. Content intelligence helps marketing leaders more effectively ensure that their content, across repositories, is maintained, on brand, effective, and useful wherever it appears. This assistance can accelerate the work of human editors or — to varying extents — replace it. A user of content intelligence technology at IBM told us: "We've saved untold money in straight savings from efficiencies and improved content, and in a machine-measurable way."

### Understanding The Content Intelligence Process

Content intelligence isn't magic. It's a set of capabilities powered by AI technologies like natural language processing, text analytics, deep learning, and computational linguistics (for example, the ability to associate a word in context with its appropriate part of speech) that vendors offer to help marketers resolve the content paradox. Content intelligence uses a four-step process (see Figure 2):

1. **Ingest a brand's content.** Vendors need different volumes of content to achieve results, but they all start with a corpus of content. Some vendors can start with a simple offer or proposition, but many use varying connectors and integrations to pull in as much of a brand's marketing content

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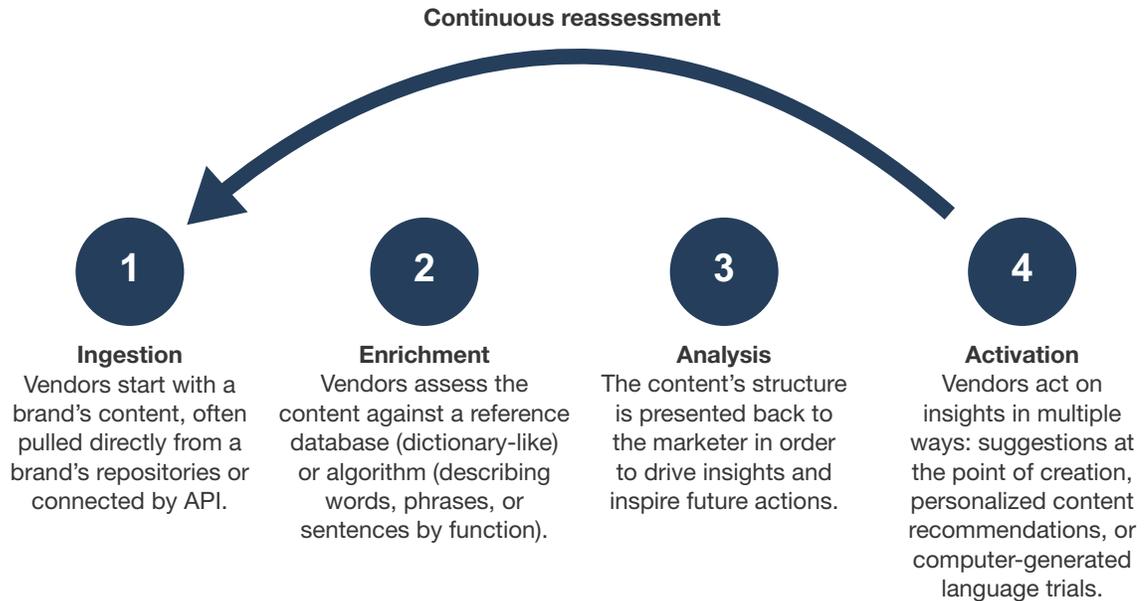
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as possible. One vendor built a plug-in for the Chrome browser so that it could be applied to any web-based text entry system. Another drops a script on a client's web properties to scrape all live content automatically. Other content or asset management vendors already sit on large stores of marketing content.

- 2. Enrich the brand's content with structured intelligence.** With the brand's unstructured marketing content as a starting point, vendors use some form of reference to provide a systematic way for marketers to optimize their content and map it to their key product groups or business labels. For example, Persado can associate a vast number of words and phrases to a specific emotion, say anxiety or glee. The process is comparable to a user applying tags to content based on the features of each asset, except it's automated, rules- or algorithmic-based, and operates at the subasset level (such as word by word or phrase by phrase).
- 3. Analyze performance against the structure.** Most vendors, by creating some structured means of relating to the content (against its emotional appeal, its topics, its readability, or its tone, for example), can help you visualize how the brand's content relates to those dimensions. This analysis can be displayed in word clouds to reflect content's dominant emotional content, graphed to show the volume of content against a topic's performance in driving conversions, or applied to essentially any dimension of business data. The goal: Help marketers understand how their content is, or isn't, serving their objectives — as well as make better content decisions.
- 4. Automate the content intelligence insights or provide suggestions.** Vendors go beyond simple visualization of the findings. At least one vendor automates the creation and delivery of new content based on the analysis, in conjunction with decision making by the marketer. Another can select content assets from across a brand's repositories based on their likelihood to interest a reader, across multiple channels. A third embeds its suggestions into the editing interface for all users. Marketers are not simply left to bridge the chasm between the insights derived from the analysis and their application to marketing goals.

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**FIGURE 2** Content Intelligence Operates Over Four Steps With A Recursive Loop For Iterative Improvements

## App Vendors And Pure Plays Offer Content Intelligence Capabilities

The steadily increasing focus on digital customer experiences, driven by consumers' own digital behavior, has given marketing technology vendors more opportunity to develop and market content intelligence capabilities. While there is a lot of variability in this young market, we find that all vendors fall into two broad groups, depending on how they relate to marketers' existing content (see Figure 3):

› **Digital experience vendors like Adobe, BloomReach, and IBM start with applications.**

These vendors start with owned repositories supporting digital experience applications. Several large vendors in the content management and asset management spaces have focused their development efforts on content intelligence to inform the digital experiences — web or mobile — that they support. Late in 2016, Adobe introduced capabilities to automatically apply relevant tags to visual content based on image recognition, which helps marketers find content more easily and optimizes delivery. IBM Watson does the same analysis for sentiment, and BloomReach via onsite and offsite search terms as a reference.

› **Pure-play vendors like Acrolinx, Idio, and Persado fit into others' systems.** These vendors sit outside an application. Some vendors start with a logic that they will structure content against, then they connect across marketers' repositories and processes to apply the intelligence. Often these systems demonstrate uplift in specific contexts, such as click-through from emails or onsite conversions, but part of their value proposition stems from autonomous application across

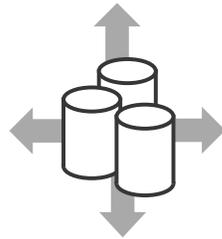
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all content repositories and channel executions. For example, Idio’s ability to link customers to their interests with topical content intelligence excels when seen across many different touchpoints and experiences.

**FIGURE 3** Content Intelligence Is Delivered From Inside Content Repositories Or By Vendors That Cut Across Them

**Embedded experience applications**



Adobe will apply image recognition to its repositories and automatically tag for subject matter.

BloomReach connects search queries to content assets to understand and tag searcher intent.

IBM analyzes content on the web to understand the sentiment of content and apply sentiment tags to new content.

**Cross-system applications**



Acrolinx analyzes content against tone, style, and brand and automates recommendations and insights.

Idio analyzes and tags content against subject matter in order to optimize its relevance for different audiences.

Persado analyzes offer language against emotional appeal and automates optimized offer language.

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**What It Means**

## The Future Of Content Shines Bright For Marketers

Content intelligence technologies will help marketers create better content that's more likely to resonate with customers and prompt them to take action. That means better offers, better real-time experiences, and better business outcomes. But it will also elevate marketers' content acumen — blending art and science to understand what really resonates. That makes content intelligence a powerful tool to help marketers bring more relevance to content types, specific audiences, and different touchpoints. It's just the beginning. In this brighter future:

- › **Marketers will be savvier about what truly persuades customers.** One content intelligence vendor describes its value proposition as “your customers are what they read — so understand what they read, in order to determine what they'll do.” As content intelligence capabilities increase in efficiency and automation, marketers will better understand the things customers love to read but that fail to drive action. Empowered with knowledge across customer experiences and the data to back it up, marketers will galvanize around the concept of getting the job done with the least possible amount of content. This brings about a new development paradigm: SPUR, or smallest possible (content) unit for result.
- › **Content intelligence options will shift the marketing technology ecosystem.** Content intelligence point solutions opened our eyes to the world of content relevance, but as these technology providers extend their capabilities and start to specialize across use cases, larger players will circle. Digital experience platform vendors like Oracle or Salesforce will build or buy content intelligence solutions to strengthen their offerings and ecosystem. As a result, content intelligence capabilities will become embedded as deeply in your CX management solution as the airbags in your car.
- › **Marketers will become guardians of enterprise content's purpose, voice, and results.** Marketers will take the helm of enterprise content. With systematic processes powering continuous data-driven content and customer understanding, marketers will push this intelligence throughout the enterprise, ensuring the entire brand remains in lockstep in its approach to external- and internal-facing content. Vendors already help customer service reps uncover the most effective answer to a given customer question; soon, they'll also be advised how to deliver it based on the caller's predisposition.

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## Supplemental Material

### Companies Interviewed For This Report

We would like to thank the individuals from the following companies who generously gave their time during the research for this report.

Acrolinx

IBM

Idio

Persado

## Endnotes

- <sup>1</sup> Source: Leonie Roderick, “Unilever’s Keith Weed: ‘Brand integration keeps me up at night,’” Marketing Week, January 20, 2017 (<https://www.marketingweek.com/2017/01/20/unilevers-weed-brand-integration/>).
- <sup>2</sup> Source: “Accenture Interactive Named World’s Biggest and Fastest-Growing Digital Agency Network by Advertising Age in Annual Agency Report,” Accenture press release, May 2, 2016 (<https://newsroom.accenture.com/news/accenture-interactive-named-worlds-biggest-and-fastest-growing-digital-agency-network-by-advertising-age-in-annual-agency-report.htm>).
- <sup>3</sup> See the Forrester report “[Your Brand Needs Content Governance Now.](#)”
- <sup>4</sup> Source: Grammarly (<https://www.grammarly.com/>).

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