



AI

White Paper

Content AI Whitepaper

Let's Talk



The Artificial Intelligence (AI) evolution is continuing to take shape. AI can now be easily integrated into all aspects of content marketing execution thus taking both time-consuming and skill-wasting tasks out of the marketers hands. Machine learning and natural language technologies have transformed the digital marketing landscape into a never-ending innovation loop.

Today, content marketers are able to combine their own creative genius with the technological power of AI to enhance customer experiences with hyper-personalized marketing content. In the ever-evolving marketing environment, content professionals are pressing forward with AI at un-unprecedented levels.

The Six Faces of AI in Content Marketing

The term “artificial intelligence” has become a catch-all term for multiple forms of technology. However, AI can be broken into six different categories based on how data is collected and used. The six types of AI include:

1 **Machine Learning**

2 **Evolutionary Computation**

3 **Neural Networks**

4 **Speech Processing**

5 **Natural Language Processing**

6 **Planning**

Generally speaking, Machine Learning (ML) and Natural Language Processing (NLP) are the two types of AI that drive most content marketing use cases. In this whitepaper, we'll be taking a deeper dive into how AI is used with a specific lens on content marketing.

A Deeper Dive

Natural Language Processing (NLP): NLP allows computers to understand human language as it's commonly spoken. For example, frequently used in search functions such as Siri or Alexa, NLP picks up keywords in our language and responds accordingly. NLP identifies patterns in stored data as well as previously heard or read language. Computer systems that harness NLP read text in human languages, interpret what it means using filters, and translate it back to us.

How does the NLP output get *understood* by the AI?

Cloud computing provides the necessary technological laboratory to power AI analysis. Without cloud technology's processing power, AI-powered solutions would hamper the bandwidth needed for practical applications. Innovations with NLP are rapidly improving with increasing accuracy and quality. NLP is the power behind chatbots, voice searches, and other marketing innovations.

Machine Learning (ML): At its core, ML is the most important driver of AI in content marketing. Systems learn from absorbing data, identifying patterns, and making decisions based on ML informed pattern recognition. These decisions are largely automated with minimal human interaction. Content itself might change, but how and why it's delivered to audience profiles can be critical for campaign decisions. A wide variety of content types with segmented performance attribution is a common for how machine learning is applied digital marketing.

Modern Uses of AI in Content Marketing:


Before we delve into the benefits AI can provide for content marketing, let's investigate the applications it brings to the world at large. What niches does AI fit? What jobs is AI making obsolete? By investigating the effect AI is having on other industries, we can more easily understand how it addresses the shortcomings of content marketing.

Here are 10 ways AI is being used across a spectrum of different industries:

1. **Hanson Robotics:** Combining natural language processing with impressive neural networks, Hanson has created human-looking robots like the famous "Sophia" that can teach languages, be used as animatronics, and provide assistance in university and medical training applications.
2. **Roomba:** The popular robot vacuum has been whirring its way across dirty floors since 2002. Its latest models use machine learning to pick out the most efficient routes to clean floors quickly, which helped the company clean up \$1.4 million in 2020.
3. **Olly:** This British-made voice-controlled AI assistant is mopping the floors with competitors like Siri and Alexa as it can evolve its personality using advanced algorithms to become more like the person who uses it—including reading facial expressions, verbal patterns, habits, and tone of voice to start conversations and make suggestions. This is a perfect example of evolutionary computation.
4. **Pager:** Designed to take pressure off doctors and nurses, Pager analyzes symptoms and puts together data for healthcare recommendations. This means that doctors and nurses get some of their time back and can be contacted for more serious issues by text or video chat.
5. **NVIDIA:** NVIDIA has partnered with Massachusetts General Hospital to create AI-powered machines that will detect diseases, diagnose patients, and make treatment plans for them. These machines use machine learning to digest billions of medical images.

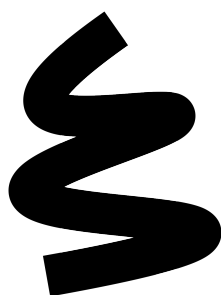
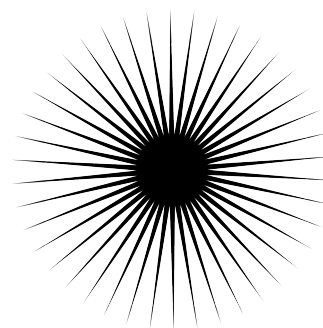
Modern Uses of AI in Content Marketing:

6. **Betterment:** This financial tech whiz learns a user's personality and goals to offer advice on how to manage a portfolio, save for taxes, and perform trades and transactions. Betterment has more than 615,000 customers and more than \$29 billion in assets in 2021.
7. **AlphaSense:** This AI uses NLP to analyze financial institution reports and materials by scanning millions of data points to give analysts a break from thousands of hours of work. More than 1,000 financial firms, including many Fortune 500 members, rely on this software.
8. **Google Maps:** For years, Google has been telling us to make a right turn in 100 feet. That's AI at work, combining NLP and ML to reroute us when we miss a turn, adjust for real-time traffic mishaps, and help us find our way.
9. **Twitter:** AI algorithms suggest the people you should follow, tweets you might like, and news stories based on the social media giant's ever evolving sense of your personality. Twitter recently added machine learning and NLP in an effort to eliminate terrorist language and hate speech. Twitter's AI banned 300,000 accounts 6 months after launch, reporting that 95% of them were in fact AI machines themselves. In 2020, over 1.5M accounts were banned for suspicious activity.
10. **Amazon:** Ever the front-runner, Amazon released Alexa in 2014 to help users with smart communication in their homes. Planning appointments, playing music, making purchases, and much more have become common. Other AI examples include intelligent search and product suggestions that improve the user experience.

[Learn more about Rad AI for incremental growth](#) 

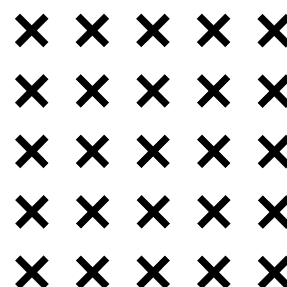
The Rise of AI in Content Marketing

Content marketing dates back to before the turn of the 19th century when brands like P&G, Michelin, and John Deere began creating magazines that gave customers a closer look at their products. Fast-forward to today and content marketers have firmly embraced the digital age to accomplish similar goals with more precision.



The variations of content marketing across blogs, ebooks, podcasts, webinars, and videos is just scratching the surface. For the first time in history, marketing teams are able to harness the power of AI to accurately plan, assess and track every piece of content that is created.

The guesswork of how customers interact with content has been replaced with performance history and data. This surplus of information opens content marketing strategies to AI-analysis and optimization.



Marketing and Content Team's Resistance to AI

Some marketers prefer acting on statistics like impressions, clicks, and views on a dashboard. However, marketers have an opportunity to execute strategies with significantly more intelligence by using the power of AI.

Today, analysis is automated by machines that do it in minutes or seconds. Advanced marketers are often able to use AI across campaign setup, strategy and performance analysis. The content AI evolution is upon us.

The ability to analyze millions of data points is the cornerstone of content marketing AI. In addition, AI can quickly identify language patterns beyond human recognition to help discover meaningful content opportunities.

How does this work in practice?

- Human intelligence uses data points to figure out that women aged 29-43 are the primary buyers of a certain product.
- AI deduces at which times the product is purchased most frequently, the best converting regions, and what other products these customers are buying within a three-month time span.
- AI delivers the optimal language for the customer segment, profile type, and campaign objective to reach the target audience.

The intersection of human creativity and AI intelligence gives marketers the insights needed to drive measurable performance. Content AI has transitioned from an analysis and compilation tool to a source for insights and campaign recommendations.

AI makes recommendations based on past and present data, what customers are looking for, and what trends are gaining traction. Connecting the dots across conversion channels, shopping habits, the most appealing content, and the language drives content performance improvements.

Why Companies First Adopted AI

AI initially assisted content marketing teams by solving three major pain points, resulting in:

1**Discovering hidden connections****2****Accelerating slow processes****3****Giving weight to what matters**

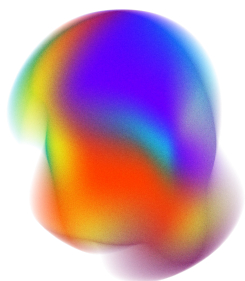
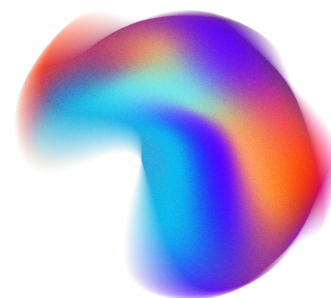
Let's dive deeper across these three points using a modern marketing example.

In this example, your company markets hand lotions and has launched a new line of products with scents that represent famous cities across the world, like London, Paris, New York, and San Francisco.

AI Strategy #1

Discovering Hidden Connections

In order to start marketing more expensive hand lotions to your existing clientele, you'd want to leverage the existing performance data. For this example, the AI analysis should be focused on understanding which customers will favorably respond to expensive product-focused content messaging. AI can rapidly search large customer databases for groups that have a higher propensity to buy more expensive products.



This particular strategy is often referred to as “audience segmentation” and can be deployed rapidly. AI variations can further identify usable marketing intelligence by ingesting competitor search queries for similar products and campaigns. This will reveal what strategies work and which miss the mark. Additionally, keywords and image searches have subtle methodologies blind to the human eye.

AI Strategy #2

Accelerating Slow Processes

A large amount of time is spent writing, designing, and creating content that builds value. AI can change this complex challenge by streamlining repetitive marketing tasks such as:

- Report generation
- Campaign measurement
- Lead generation
- Large-scale content management
- Email marketing recipe(s)
- Content scheduling
- Optimization
- Image search
- Keyword research
- Blog / article creation and optimization

The automation of processes give marketers more time for high-level thinking and sometimes costly human errors that occur when performing repetitive tasks.

Most marketers use creativity and data to drive campaign decisions. Referring back to our hand lotion example, content can be highly effective when offline experiences compliment the segmentation strategies suggested by AI.

This illustrates the importance of human assistance when using AI to drive segmentation. Messaging that speaks to a sophisticated, world-traveling woman who can afford luxury lotions is vastly different from the woman who buys expensive lotions for herself once or twice a year and has never been outside the U.S. These two customer profiles are built from what AI collects, analyzes, and suggests.

AI Strategy # 3

Giving Weight to What Matters

When the Internet was in its infancy, it wasn't a tool for marketing and sales. Advertising strategies revolved around local newspapers, magazines, catalogs and flyers. Top-selling customers would be targeted through direct mail, and television commercials were used to drive direct conversions and brand-focused campaigns.

These are now fundamentally dated strategies. At the time, talented marketers would look at statistics and small data sets to guide campaign decisions. The opposite is true today.

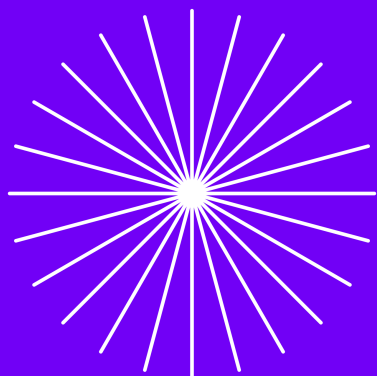
Every piece of content that is digitally deployed can be tracked. Content marketers know if their pieces are opened or read, what links are followed, what social media posts are "liked" or retweeted, what blogs are shared, and so forth.

Content AI processes performance data for the purpose of identifying patterns. Fast analysis and turnaround times allow for tweaks that can shift ROI, engagement, and conversion values.. AI analysis gives brands the best chance to predict what current and future customers want.

[Click here to learn more about Rad AI campaign intelligence](#)

AI Strategy # 4

AI Analysis, SEO and Keywords



In the section above, we highlighted several ways AI makes life easier for the typical content marketing team.

As marketers, it's certainly a healthy question to ask:

How AI can impact my content marketing team's immediate future?

Here are some of the leading use cases:

Simplifying SEO activities is a large part of enterprise marketing strategies, but it's more than creating backlinks and identifying terms. These terms, which are called keywords, must be integrated into blogs, articles, social posts, and more.

Machine learning (ML), when used correctly, creates better performing blogs and articles. The right keywords and optimal content density, when deployed across brand-specific web pages, create value-holding backlinks and higher Google rankings. Improved Content Strategies and Planning AI tools like NLP and cognitive computing can be used in content strategies, research, and analysis. By using the data gathered from AI to create hyper-personalization for customers, content marketing teams have the background work done for them.

Improved Content Strategies and Planning

AI tools can be used to perform content strategies by means of NLP and cognitive computing to aid in research, analysis, and content strategies.

Hyper-personalization for customers is highly relevant for content marketing teams looking to develop audiences with segmented messaging.

Customizing the buyer's journey with messaging tailored for a specific audience produces a performance lift.

Drilling deep into each customer's data with AI can determine the tonality of language, sentiment, and related nuances that work together to drive better performance.

To put it simply, interpreting massive reams of data is impossible without the use of AI.

Collecting data from customers at each touchpoint, interpreting it in real-time, and making suggestions that impact customers' decisions is made possible with content AI.

Enhanced Context with AI

Your content will have a greater impact on customers when it is infused with context. This means that AI can also be a salesman's best friend if deployed correctly.

Let's think of some relatable examples: what time of year it is, what time of day it is, what's going on in the customer's neck of the woods? Is there AI in Content Marketing local festivals or traditions being celebrated? Is the customer celebrating a birthday or an anniversary? Is there a religious holiday coming up? Are they celebrating an anniversary as a preferred member of your business? Whatever the situation, extra perks and thoughtful communication goes a long way.

AI can keep these experiences cued up with a special email, text, or social nudge for when that day arrives. Getting a birthday email from companies is standard practice; however, getting those emails complete with timely offers, special deals, or invitations to exclusive membership clubs creates strong business relationships.

Every step marketers can take beyond “Dear Customer,” is a step closer to defining your brand. Convincing a one-time customer to become a lifetime customer is an essential part of a business strategy.

The New World Of AI Part 1

Using AI to create content has been utilized for years by organizations to speed up processes and reduce human involvement. Let's take a look at 20 examples of Machine

Learning use cases across several real-world solutions:

The Associated Press: Algorithmic formulas drive marketing mandates which deliver thousands of stories ranging from the Olympics to other sports.

Bloomberg News: As much as one-third of the content in Bloomberg is the result of some form of automated technology. A system called Cyborg is used to help reporters craft business stories about earnings reports each quarter. These articles are necessary, yet not interesting for reporters to write about. With AI help, reporters can focus on more engaging projects.

The Guardian: The Australia edition published its first machine-assisted article in late January 2019. The author of the piece is "ReporterMate", which typically uses a template and dataset to create a story. The founder of the Guardian, Nick Evershed, says human reporter's jobs "are safe" as ReporterMate mainly creates repetitious stories.

The Los Angeles Times: Journalist and programmer Ken Schwencke developed the algorithm known as Quakebot. When an alert comes in from the US Geological Survey of an earthquake above a certain magnitude, the algorithm inserts the relevant information into a pre-written template in the LA Times content management system. The template then gets reviewed and uploaded for publication by a human editor. Schwencke developed the program after he was shaken out of bed by an earthquake measuring 4.7 on the Richter Scale.

The New World Of AI Part 2

Press Association: This UK news generator goes about testing AI differently. A journalist finds a story to write using publicly available data sets and writes a generic story. AI will then apply a template to the dataset to create variations of the story for local publications across the country.

Dreamwriter: This programme was created by China's Tencent and uses speech-to-text software to turn conference speeches into news articles. The program is able to transcribe as many as 2,500 speeches per day.

The New York Times: An experimental AI project titled Editor debuted in 2015 using tags to highlight and improve headlines, main points of the text, and specific things like people, locations, and dates while serving as a backup fact checker.

Facebook: Using Machine Learning (ML), the social media giant can identify word patterns that identify and flag content as possible fake news, then eliminate it after review.

Neue Zürcher Zeitung: This German-language newspaper located in Switzerland uses a flexible paywall with personalization based on dozens of questions to give its readers only the news they want. Their conversion rate has increased fivefold as a result.

Taco Bell: Who doesn't want to speak with a talking taco? Taco Bell has introduced Tacobot, a free addable friend on Slack that lets you order food from the fast-food chain with a bit of witty humor. As you use Tacobot more, it gathers more insight from your orders and makes suggestions based on similar users and your previous order history.

The New World Of AI Part 3

NBC Universal: The media giant uses AI to create intelligent content and customized clip generators based on the profile of the person watching. NBC also uses “computer vision”, which automatically parses the content and context of a video clip.

1-800-Flowers: Using the power of Facebook Messenger chatbots, 1-800-Flowers is able to gain knowledge of customers from their profile and personalized floral purchases. With the customer supplying input in the conversation with the chatbot, their online persona is built and designed to include floral preferences, who the customer is shopping for, important dates, and so forth. This allows the marketing team to customize future offers tailored to the customer.

ESPN: When you sign in to ESPN.com, you're given the opportunity to pick your favorite sports team to get a closer look at stories related to them. ESPN then taps into its sister networks—including jersey sellers and ticket resellers—to offer fan exclusives.

Forbes: In January 2019, Forbes introduced Bertie, an AI-driven content management system (CMS) that recommends article topics to contributors based on their earlier pieces. The AI also suggests images and headlines for the sentiment of the stories they are currently working on.

Alibaba: The company uses a fashion-AI in stores that use smart tags created to detect when customers touch a garment. Then, the item can be retargeted to the customer with customized content later. There are also smart mirrors that show everything about a clothing item as well as suggesting other items that match or compliment it.

The New World Of AI Part 4

Amazon: The company has collected a staggering amount of information on everyone who has ever used its service including: purchases, every item you've browsed, every place you've lived in while ordering something, apps you've downloaded, TV shows and movies you've watched, devices you've watched those shows on, and everything you've ever asked Alexa. Amazon uses all this knowledge to make frightfully accurate predictions of items you might like to buy next, items you might need a refill on, and things that may expire and/or wear out that need a replacement.

Under Armour: The brand sells athletic merchandise to train and track your fitness performance via an app with recommended exercises, diet, and nutrition.

Starbucks: This brand creates master marketing tips disguised as fun games that involve points and big data. AI creates a reward program that allows users to earn points and receive customized Starbucks offers.

Nike: The shoe Goliath uses in-store IoT to allow customers to design their own shoes via the collection of personalized data. This data is then translated into personalized recommendations and communications.

Sephora Virtual Artist: One of the toughest parts of buying makeup and other cosmetics online is wondering how the product will look on the individual making the purchase. After all, the model might have a different skin tone or eye color. Sephora's content marketing allows users to upload selfies to gauge skin tone and facial features for product recommendations. Customers use an augmented reality overlay to try any product and can, of course, purchase it directly from the app.

More AI Tools & Solutions Part 1

Hubspot Content Strategy Tool: Hubspot is often referred to as the gold star for digital marketing. They're seemingly doing everything they can to make everyone better off. This platform uses machine learning to help marketers discover new content ideas through topic clusters based on competition and relevance. And yes, we also believe it's the leading sales CRM known to brands.

Conquere: This company uses AI to isolate specific topics that drive marketing performance and engagement. The platform performs automated content audits, researches for content topics and ideas, creates content briefs, and tracks and analyzes performance.

BrightEdge: This brand focuses on SEO and uses AI tools to reveal the intent behind search queries, provide business forecasts, guide content optimization and creation, and develop a content strategy that takes into account competitive strengths.

Crayon: Using AI tools, crayon helps you adopt a cloud-focused strategy and gives you insight and control over IT investments. They also help accelerate digital transformation with machine learning and data-driven solutions.

MarketMuse: This brand provides an AI-powered platform that helps with content research, writing, and industry intelligence. AI collects data on your content and helps you build models that can improve your content strategy.

More AI Tools & Solutions Part 1

Acrolinx: Developed in a top German AI research center, this tool is designed to improve content at scale for large enterprise brands. Everything from the tone of voice to branding for specific products is included.

RAD AI, formerly Atomic Reach: An AI-powered content optimization platform, this technology audits, analyzes, and regenerates your content—starting with the optimization of evergreen content, then moving onto content creation. The company was acquired by Rad Intelligence as of 8/01/2021. And yes, Rad Intelligence is RAD AI.

WordPress: A unique take on content strategy, this AI for SEO is specifically designed for WordPress content marketers so they can write without worrying about search engine algorithms. The plugin optimises writing and content organization to improve website findability.

Quill Engage: Using AI-powered data analysis, Quill Engage extracts data insights from your Google Analytics and creates insightful reports on your website performance using contextual interpretations.

Crystal: This brand focuses on performance analysis for digital content reading statistics from all available channels and allows you to automate campaign management and publish new content based on what's working and what isn't.



AI in Content Marketing Conclusion

Using AI to support content marketing is not a passing fad. Unprecedented breakthroughs have made incredible strides as Machine Learning models continue to grow. In just a few short years, marketing teams and larger firms have adopted a wide variety of AI-enabled solutions.

Using AI for the automation of simple tasks and for performing complex analysis of customer data has become normal. As solutions evolve with content AI, the value to forward-thinking stakeholders is limitless. We expect even more adoption and innovation as enterprise brands compete for customer mindshare, and look forward to new content AI developments.

Firms that believe AI is not a fit should consider this value proposition; reaching your target audience better than ever before, capturing their undivided attention, and creating a personal relationship with them. To this point, most C-suites, stakeholders and marketing leaders are perpetually searching for an edge. We expect even more **adoption and innovation** as enterprise brands compete for customer mindshare.

[Learn more about RAD AI](#)