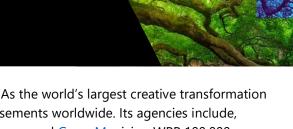# Best of Business AI
WPP case study

It's pretty much a certainty you've seen WPP's work today. As the world's largest creative transformation company, WPP is responsible for nearly one in four advertisements worldwide. Its agencies include, among others, AKQA, Oglivy, VMLY&R, Wunderman Thompson and GroupM, giving WPP 100,000 employees in over 80 countries. From Netflix to Bose, from Burger King to Ford, WPP agencies create memorable campaigns, experiences, and communications for the world's most iconic brands.

WPP agencies are always working to help their clients reach the public in more creative and effective ways. As Di Mayze, Global Head of Data and AI for WPP says, "We're constantly thinking of new ways to work with clients to build meaningful communications, relationships and experiences with their customers. We're not just doing what's always been done."

To deliver on this promise, WPP is investing in AI technology. While marketing and technology have been intertwined for decades, AI is unlocking possibilities that didn't exist before. "Technology has always been a key part of how we've delivered marketing, at least for the last 30 or 40 years," says Stephan Pretorius, Global Chief Technology Officer for WPP. "If you think about what's different today, it's really that ability to connect data across different domains, the ability to automate processes, and the ability to apply AI to the work that we do in virtually every function is something that's radically new."

WPP uses AI to empower its employees to apply their creativity in new ways. WPP has thousands of brilliant artists and marketers with deep expertise and experience. These people are the company's greatest strength. With data scientists and AI applications as "creative collaborators," they now have the opportunity to enhance their craft and create previously unimaginable new things.

"The relationship between creativity and data hasn't always been appreciated," Mayze says. "For us, this is the exciting part where we can put to work data which provides genuine insights that augment creativity. We often talk about the creative duo, where you have a creative person and a data person, and they work together to deliver transformation for clients."

WPP has created structures and processes to support AI projects, laying a crucial foundation for AI innovation.

WPP's approach to AI

Embedding data and AI into creativity

The creation of Mayze's position, Global Head of Data and AI, was a key strategic decision. Mayze says, "Another way to describe me would be a chief data transformation agent. I'm about bringing data literacy, AI innovation, excitement, skills, and communities together across WPP."

Culture

Her team's priorities include data management, technical training and communities for data scientists, education for non-data scientists, and creating content about WPP's perspective on AI. Recent content includes Data 2030, a paper on what data science will look like in a decade.

Creating a data strategy

AI models are only as good as the data they're trained on. To make it easy for agencies to find the data they need, WPP has created the WPP Data Catalog that all its people can access. It already indexes over five hundred datasets and has a thousand people using it across 80 agencies. It also includes third-party datasets, which WPP purchases strategically as needed. The purpose of the WPP Data Catalog is to index data sources, not corral them into a huge data lake; an approach that is future-proofed to take account of a changing environment when it comes to data ownership and regulation.

Strategy

The WPP Data Catalog isn't all run-of-the-mill data. With the understanding that one never knows what data might be useful, WPP includes all kinds of data in the catalog. There was even one dataset about a person's chance of being eaten by velociraptors based on where they live. Against the odds, that dataset ended up being very useful for an agency working with the Jurassic Park franchise. As Mayze says, "We're trying to inspire creative ways of thinking about data. We want people to have fun with data. We want to make sure that data and creativity work together."

Giving data scientists resources and community

For Mayze, having a large volume of data is not the most important factor for AI success. She says "The way our brilliant people apply that data is what sets WPP apart."

With that ethos, WPP is helping its data scientists thrive by creating a strong peer community and offering technical training. WPP established the WPP Open Data & AI Community where over two thousand active members can share tips and ask for help. The community hosts events, webinars, and training on topics ranging from data fundamentals to AI ethics. WPP also has a goal to train five thousand data scientists in the organization through its AI Academy.

Culture

Spreading AI expertise across WPP agencies

WPP's approach is to share data and AI-related information and resources openly and broadly across its agencies.

WPP doesn't believe in centralizing innovation. Rather, data scientists are embedded in its agencies and encouraged to think about how their work and expertise can benefit the whole network. Mayze asks them to share their datasets and code with the whole company. AI products and solutions developed by a WPP agency essentially become available to all agencies after going through a centralized vetting process. Teams working on AI projects also document success stories as a way to instruct and inspire others. WPP created their WPP Open platform as a place to store this information and share it across the entire organization.

Scale

This operating model has dual benefits: WPP AI experts help agencies deliver innovative results, and they contribute back to WPP so that the entire company learns from their experience.

Collaboration between data scientists and marketing experts

When WPP is creating a new AI application, it's important for data scientists and marketing experts to work together.

Stephan Bruneau, Global Head of Product Solutions at Wavemaker, a WPP agency, is responsible for developing AI applications for the benefit of the agency and its clients. His teams always include stakeholders that represent the end users of the solution as well as data scientists and developers. Regarding an AI solution intended for media planners, he said "When

Culture

developing the AI platform, we worked very closely with a lot of experienced planners and captured as much of their expertise as possible to make sure the solution was on the right track."

Lucile Ripa, Analytics and Data Science Partner at WPP's Wunderman Thompson, agrees with that approach. She says that failure to include perspectives from the right people will result in a solution that isn't adding enough value. "Sometimes we spend quite a lot of time developing specific functionality in the tool that we thought would add a lot of value. But in the end, the users didn't need it. This is something we learned the hard way and we are fixing now in our new project development."

Educating all employees about AI

Within WPP, the partnership between data scientists and creative professionals is most fruitful when both sides understand the other. When WPP employees are working with clients on an AI project, they need to be able explain how the application works, its benefits, and how to use it.

AI for everyone

With that in mind, WPP has a goal to educate at least 50,000 colleagues about AI, demystifying the technology and preparing them to take advantage of it in their work and communicate about it with colleagues and clients.

Pretorius says, "You don't become an AI company by having an AI department. You become an AI company by training everyone in the business about the potential of AI."

To accomplish this ambitious goal, WPP has partnered with a variety of organizations including Microsoft's AI Business School, Coursera, Territory Studios, Synthesia, and the Oxford Saïd Business School. WPP envisions a future where every colleague merges creativity with data literacy to continually push the envelope.

At Wunderman Thompson, Ripa says "The most significant success for the agency is how we democratize the use of AI. It's a small revolution in itself. Even the least technical person is fluent in AI."

Using AI responsibly in a quickly changing world

AI models learn from the data they're trained on, so it's imperative for people to be aware of biases or imbalances in the data. For example, AI models can be used to create an "ageing" filter that automatically makes humans in adverts look older, which is useful for tweaking adverts for different markets. But if the model was trained mostly on white people, it could make the people's skin lighter as it ages them, leading to a lack of racial diversity in those adverts.

Responsibility

WPP is addressing these risks in a number of ways. The first is to discuss AI ethics in its training and communities for data scientists. Another is to establish both a data ethics policy and a more specific AI ethics policy. The goal of these policies is to go beyond mere legal compliance and to create a culture where everyone is thoughtful about the application of AI solutions.

Another step WPP has taken is to create tools that employees can use to uncover potential issues. "It's not good enough to just educate people and write policies. You also have to give them tools that they can use in their day-to-day work," Pretorius says. "One of our rock stars in terms of data ethics and policy created a Data Ethics Compass, which is a tool that allows people who work with customer data, market data, or targeting data to assess whether there's any risk in terms of the datasets that they are using. This whole process of combining tools and policy is getting us on the right track in terms of ensuring that we are a force for good when it comes to using AI in marketing."

WPP agencies are also working on projects that support AI responsibility. Wunderman Thompson is developing an "anti-bias" dashboard that will allow clients to uncover ways that their advertising images or language may be biased.

In addition, WPP is collaberating with Microsoft on the Responsible AI Framework, which aims to identify and prevent harms, and solve for them.

AI in action: Marrying creativity and AI

All of the strategic decisions described above have helped WPP agencies succeed with a number of AI solutions.

For example, Wunderman Thompson provides AI solutions to its clients' marketers. They work with a range of AI models, including those that sort images into categories, transcribe audio while removing background noise, analyze facial emotions in videos, and more. The models are pre-trained on WPP data, then tailored to a given client by doing additional training cycles with their data. Customers retain full control of their own data, and having pre-trained models accelerates deployment so solutions can get up and running in as little as 24 hours.

One of Wunderman Thompson's solutions is an ambitious tool called Momentum that's designed to help clients personalize adverts for individual customers. A customer might be browsing for one item on a mobile app and another in a web browser. Knowing that those data signals from two different systems are the same person helps companies improve targeting. But it's extremely difficult because of the overwhelming amount of data, plus privacy regulations that prevent businesses from tracking certain customer data.

Momentum ingests customer information from across channels and notices patterns to predict when the same customer is engaging on different channels. Carsten Hyldahl, Head of Data and AI for Wunderman Thompson MAP (Marketing, Automation, and Personalization), explains that the AI helps marketers figure out "This email, website visit, and mobile user is probably all the same person. So your messaging should think of this as a continuation of the dialogue with them." With Momentum, brands are seeing at least a 30% increase in consumer identifications, with some seeing as high as an 80% increase.

Momentum has even been used in response to the COVID-19 pandemic. A pharmacy client used the solution to predict vaccine demand based on their own customer data and WPP data, while maintaining data privacy.

B2B Content Intelligence

Another Wunderman Thompson solution helps WPP colleagues and their clients better understand customer engagement and thus develop more effective marketing.

Using natural language processing models, the solution analyzes huge amounts of text like social media feeds and website comments to identify key themes and customer sentiment. Other models analyze LinkedIn user profiles to determine what topics and types of content certain audiences engage with most.

AI is essential for doing this kind of analysis at scale. It has helped users complete tasks in minutes rather than hours or days. As Ripa explains, "The idea was not to build another social listening tool or to monitor the performance of specific posts. We had much bigger ambitions. We wanted to develop a true measure of audience engagement and content performance at a massive scale, at brand level or topic level or industry level."

Optimizing media plans
Wavemaker is responsible for helping clients decide how to allocate their advertising budgets to achieve maximum return on investment. As media channels have proliferated across TV networks, streaming, social media, search, and more, it has become more difficult to determine which audiences to target on which channels. That's where AI comes in.

Wavemaker developed an AI solution called Maximize that helps colleagues optimize the media plans they create for clients. By simulating the likely responses of millions of consumers to a brand campaign, they trained an AI model to generate an initial draft that acts as a jumping-off point for planners. Planners input details like the brand, country, overall budget, and campaign priorities. The AI model simulates millions of investment combinations and suggests a budget allocation to maximize reach and minimize superfluous spending.

The expertise and creativity of humans is still crucial, but AI gives them a head start. "Instead of starting from a blank sheet of paper to create a plan, now our planners get 70% or 80% of a good plan as a starting point, and then they take over," Bruneau says. "And then they add their own craft. They can tweak the campaign to add an extra element into it. And that's how we join up the AI side and the human craft side, which is obviously extremely important to us."

Wavemaker plans to improve the solution by tracking the changes planners make after they receive the AI draft and using that information to further train the AI model. The next step will be to make it available across the group through WPP Open, WPP's technology platform.

Endless possibilities
Here we have shared just a few examples in depth of how WPP is using AI.

Other examples include AI models that can actually be used to generate content, like photo-realistic images of Scarlet Macaws, human models, or Rembrandt paintings.

Other AI models can help marketers forecast product demand or predict what customers would respond to. "AI has been incredibly useful in terms of forecasting or predicting the specific layout, specific orientation, the positioning of logos, people, and products offered on a piece of creative and predicting whether it will work in certain environments. We've used AI to build tools to effectively create pre-testing before content goes into the market," Stephan Pretorius said.

WPP will undoubtedly continue to lead the way by using AI in increasingly creative ways.

Creativity powered by technology
Creativity has always been the foundation of WPP's offer, but now that expertise is being bolstered and accelerated through data and AI. By incorporating AI solutions and building a culture where everyone can innovate, WPP has established itself as an organization where technology powers creativity. And every colleague has a part to play.

"AI has become a business tool just like Excel or Word was 20 years ago, and it's an essential business tool for the next decade that all business leaders need to embrace and understand," Pretorius says. "I'm incredibly optimistic about the potential of AI to positively impact the marketing and advertising industry. We've only begun to scratch the surface of what is possible."

Stephan Pretorius
Global CTO, WPP

Di Mayze
*Global Head of Data
and AI, WPP*

Stephan Bruneau
*Global Head of Product
Solutions, Wavemaker*

Lucile Ripa
*Analytics and Data
Science Partner,
Wunderman Thompson*

Carsten Hyldahl
*Head of Data and AI,
Wunderman Thompson MAP*

Learn how other companies have used AI successfully on the *Best of Business AI site* and the *AI Business School*. The AI Business School includes modules on:

*Defining an
AI strategy*

*Enabling an
AI-ready
culture*

*Responsible
AI*

*Scaling AI
in your
organization*

*Enabling
business users
with AI*

AI Business School

**Learn tips and strategies for leading in the age of
AI with our online class**