IPSOS VIEWS

AI IN ADVERTISING RESEARCH

Humanizing AI to Spark Creativity and Brand Success

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At Ipsos, we champion the unique blend of Human Intelligence (HI) and Artificial Intelligence (AI) to propel innovation and deliver impactful, human-centric insights for our clients.

Our Human Intelligence stems from our expertise in prompt engineering, data science, and our unique, high quality data sets – which embeds creativity, curiosity, ethics, and rigor into our AI solutions, powered by our Ipsos Facto Gen AI platform. Our clients benefit from insights that are safer, faster and grounded in the human context.

Let's unlock the potential of HI+AI!

#IpsosHiAi

The pursuit of these AI productivity gains, in both advertising development and measurement, also poses a risk to the soul of advertising as we know and love it.

An AI revolution in advertising

Advertising and media are undergoing a loud revolution. One where assets can be created, versioned and placed in near real-time. And this comes at the right time. When on the one hand marketers and agencies have more opportunity to connect with the people they want to choose their products and services and grow their market share. And on the other hand, the same marketers are grappling with the challenge to create and place higher volumes of assets and variations across media platforms at a faster speed, trying to maintain contact and a consistent brand voice.

This revolution is underpinned by the real opportunity of AI and the advent of Generative AI. Machines powered by models that can create text, audio, images, and video with human prompting. Examples of such tools are those provided by social platforms, where marketers can now create, version and re-format ad copy and video ads, saving significant human labor time and in turn increasing productivity[1].

The availability of AI tools also has an impact on the speed and cost of measurement. Where Analytical AI models are trained on human response data sets to predict possible human effects for new ads, and in turn have the capability to create a near real-time cycle of creation, measurement, selection, and optimization of the most effective ads. And to measure more ads and adaptations that do not typically get advertising research investment.

But the pursuit of these AI productivity gains, in both advertising development and measurement, also poses a risk to the

soul of advertising as we know and love it. If the machines create and measure in a cycle, without either human creativity or fresh human response data, we could find ourselves in an effectiveness dystopia. One where ads are created, versioned and measured quickly but are less effective in capturing Brand Attention and changing the Behavior of the end human audience they need to influence.

In this first paper of a new series on AI and advertising, we will explore these risks and outline a vision for how AI ad evaluation tools can be more connected to human creativity, and used more widely in advertising research, to increase effectiveness without losing the unique and original art that defines successful advertising. One where Human Intelligence (HI) and AI work together in a fluid way to help advertisers to get to more effective advertising and in turn build successful brands. To do this, we will draw on findings from a robust dataset of 18,000 ads used to train our AI ad evaluation solution, Creative|**Spark AI**.

A risk to creativity and effectiveness?

Analytical AI models that evaluate ads are typically trained on human response data sets from past aired ads. When the models have a sufficient level of prediction accuracy for human effects, they are deployed to test new ads at a significantly lower cost and time of human response research. This faster speed and lower cost of research delivers quantifiable efficiencies in the advertising production process, and when budgets come under scrutiny in challenging economic conditions, this is welcomed by both the CMO (Chief Marketing Officer) and the CFO (Chief Finance Officer).

But if the AI tools used are not of a high enough quality or assigned to the right use case in the research process, these cost and time savings could come at a price. And that price is in creativity and effectiveness in terms of sales lift and market share growth. This is in the end the objective of advertising and we can consider if we pursue speed and productivity by losing sight of the objective, it may all be for naught.

Creativity in advertising is at times a debated concept, with varying definitions, supporters, and detractors. It is on the one hand considered by 67% of marketers to be a competitive advantage and on the other hand only 12% are confident to lobby CFOs to invest in the time, budget, and resources to deliver more effective advertising[2].

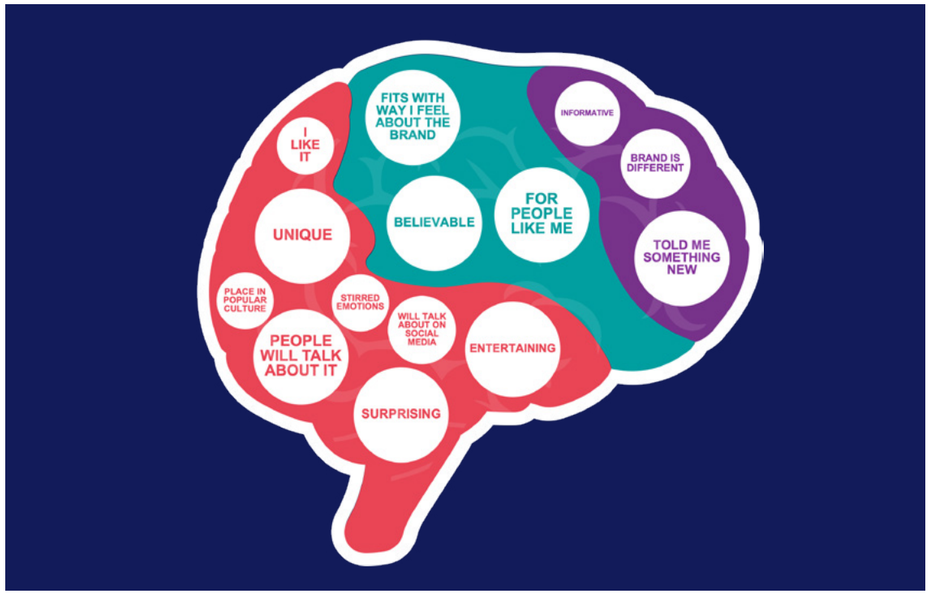
At Ipsos, we published a data fueled and people first perspective on what creativity means in advertising and how it can build Brand Success called MISFITS[3]. In the publication we identified that advertising that delivers entertaining creative experiences, founded on empathy for the audience, and that shapes expectations with new ideas and thinking is more effective in driving sales lift.

And with these observations from human responses in advertising evaluations we in turn identified that creativity and its contribution to sales lift effects rests on a conscious intent from marketers to deliver a good quality human experience that

AI in Advertising Research

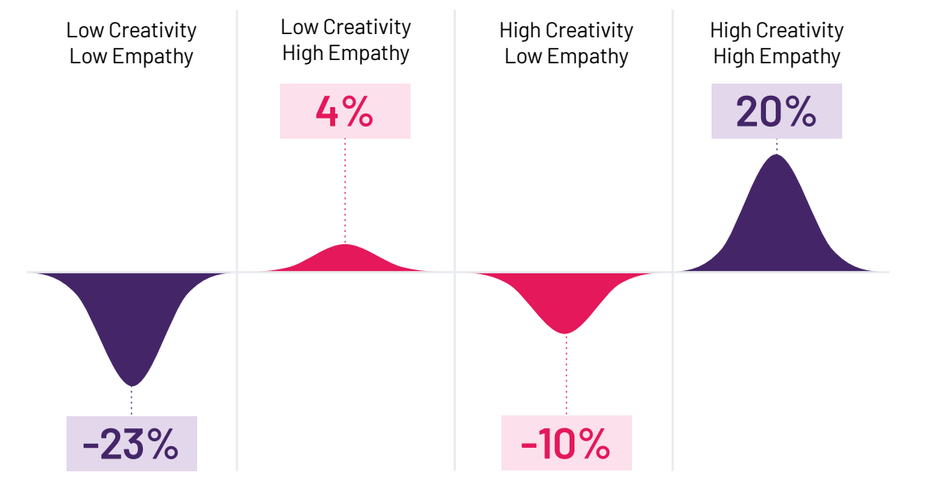
Figure 1: The Misfits Mindset

Key: ■ Creative Experiences ■ Empathy & Fitting In ■ Creative Ideas



Source:
Ipsos Creative Excellence/Misfits

Figure 2: Creativity Can Help You Put the "Extra" in "Ordinary"



Source:
Ipsos Global Ad Testing Meta Analysis (n=1,734 cases)

represents the context, needs and world of the target audience.

These findings then represent a tension when we consider the use of AI models to evaluate ads. By default, AI ad evaluation models are trained on ads produced or aired in the past, so if they evaluate ads that leverage new ideas or thinking, there is a possibility the model will not fully recognize the effectiveness value of this experience that we would have otherwise measured with human responses in traditional creative research. Meaning that we could be risking not moving forward with divergent and effective ads to increase sales.

The inverse risk could also be realized, where AI models score ads highly that would otherwise have been measured as average or weak with human response research. If, for example, a brand has recently received negative publicity due to product quality concerns or reports about their impact on the environment, the model will not have this context to consider in the evaluation and may score the ad higher than a human response evaluation.

Given these risks to creativity and effectiveness, if we are to gain the value of more efficient and scalable ad evaluations, we need to think differently about how we train the models and use them in the production process. Put simply, we need to work towards better **humanizing** AI models with our Human Intelligence, thinking and datasets, to start to bridge this creativity, context and empathy gap and reduce the effectiveness risk. While also recognizing the continued, critical need for human response research to get to more creative and effective advertising.

In the following section, we will outline the steps we are taking at Ipsos to humanize AI ad evaluation models and what this means for the future of AI in the creative production and research process.

How we humanize AI to bridge the creativity gap

Attempting to humanize AI ad evaluation models is a daunting challenge, yet a necessary one if they are to as accurately as possible predict human responses and add effectiveness value in the advertising production and research process. These models rely on the quality of two inputs to accurately predict human responses:

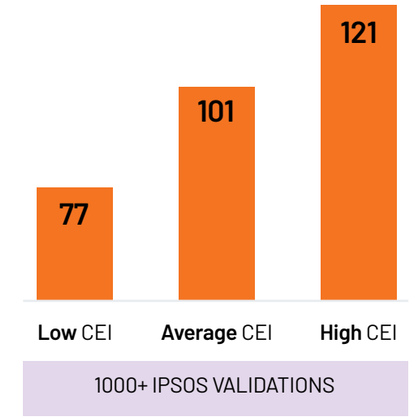
- **Human response metrics:** these are the dependent variable the model is tasked to predict and the quality of these metrics and their validation to business outcomes is critical. If the human response metrics the models are trained on are not validated to business outcomes it does not matter how accurate the model prediction is.

- **Ad features and characteristics:** AI machine learning prediction models need input variables to predict the dependent variable. In the case of ads, this can be features or characteristics of the ads that are linked to higher or lower performance on human response metrics. If these features are too narrow in scope, this can affect the accuracy of the prediction model.

The sales validations of human response metrics are critical

Firstly, when we consider the quality of the human response metrics, we have benefited at Ipsos from extensive ongoing validations to end business outcomes. These validations are typically executed in Market Mix Models, where the models will normalize external variables like seasonality, pricing promotions and competitor media spend, to isolate the contribution of the creative quality of ads to sales lift effects. With over 1,000 validations of our Creative Effect Index (CEI), a composite metric of Brand Attention and Behavior Change effects, we observe that the higher the CEI the higher the indexed sales lift potential. This means that we know we have a high-quality human response dataset when training AI prediction models.

Figure 3: **Creative Effect Index**
(CEI and indexed sales lift)



Source:
Ipsos Global Ad Testing
Meta Analysis
(n=1,734 cases)

> **This improvement in prediction accuracy is not only encouraging for the quality of data for advertising decision-making, but it also indicates the continued value of Human Intelligence in the process.**

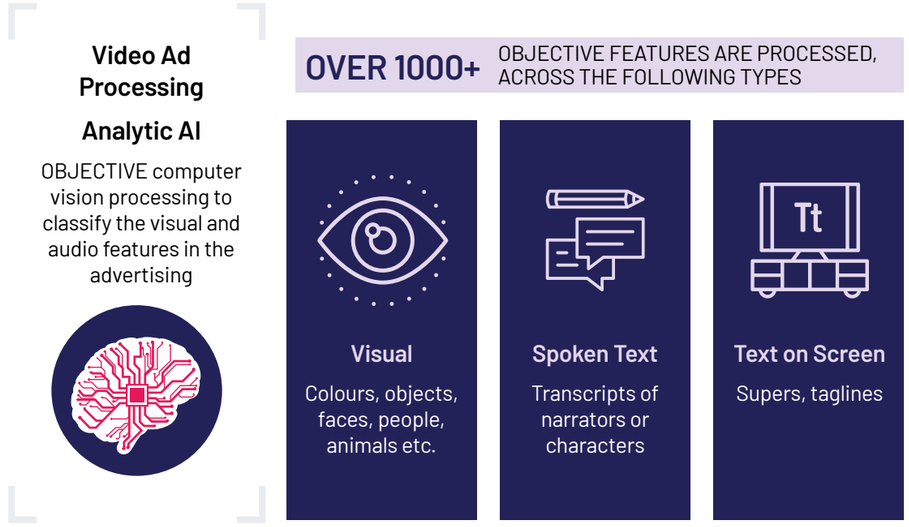
Applying Human Intelligence to AI features matters

When considering the input variables, we need to represent as many characteristics of ads as possible to help the model identify patterns and predict higher or lower performers. Analytical AI software such as computer vision is a well-established tool to provide such variables. It deconstructs the visual and audio features of ads frame by frame and in doing so can provide high volumes of **objective** information about the ads. This can be colours, scenery, whether music is used, whether people or animals are present, etc.

The raw features processed by such software can result in thousands of variables and the AI prediction model uses them to identify patterns of features that are more likely to be present in higher or lower performing ads. And while these raw features are useful, they represent a baseline. A first **objective** step to help the model predict human responses.

But, as we outlined earlier, human responses can be influenced by context, empathy, and new ideas that continuously shape people's expectations and in turn their choice of brands or services. And we observed in the modeling process that our first version model based only on objective features from computer vision had lower prediction accuracy on ads that in the human test strongly delivered these types of experiences. Which are the very essence of creativity and effectiveness.

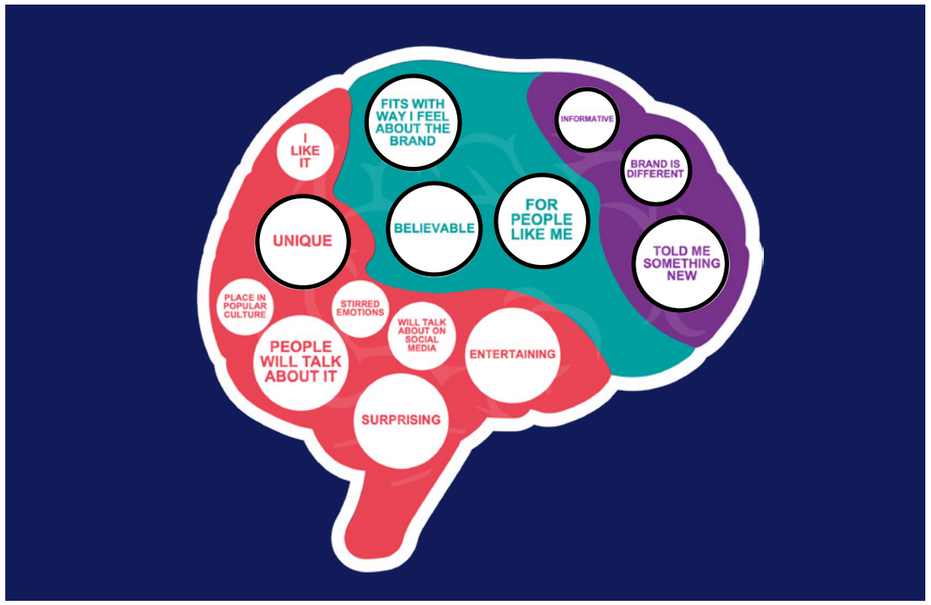
Figure 4: How it works: Analytic AI



Source: Ipsos

Figure 5: AI prediction model accuracy for ads with strong MISFITS creativity when not using Human Intelligence features

Key: ■ Creative Experiences ■ Empathy & Fitting In ■ Creative Ideas



Source: Ipsos Creative|Spark AI Prediction Model Training. Highlighted ad ratings are above norm MISFIT profile for under classified effects by AI model vs. actual human responses. (~n=13,000 cases)

So, in the process of developing our Creative|**Spark AI** prediction model, we asked ourselves a question. Can we transform these raw AI features with our Human Intelligence to create new features that relate to the principles of what we know at Ipsos is linked to creative, effective advertising?

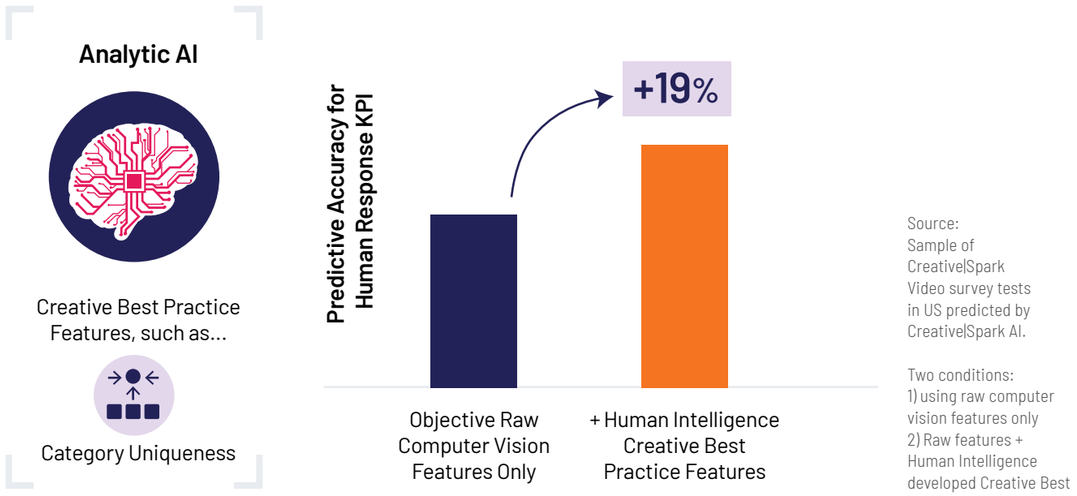
This question led us to develop what we refer to as Creative Best Practice features. These features are engineered from the raw analytical computer vision features, based on Ipsos knowledge of what executional best practice tends to be linked to high effectiveness, and as such are unique to Ipsos' model and service delivery. An example of a Creative Best Practice feature is **Category Uniqueness**, a feature we coded by profiling the visual and audio features in the test ad and comparing that profile to the average of all other ads in the same category.

Conceptually, it acts as a proxy for delivering a unique experience and new information that shapes people's expectations, which we know underpins creativity and effectiveness in human response metrics and is key for achieving Brand Success.

This feature, and others we developed based on our knowledge about advertising effectiveness, increased the accuracy of the AI prediction model versus the baseline raw features by as much as +19% for some key human response metrics.

This improvement in prediction accuracy is not only encouraging for the quality of data for advertising decision-making, but it also indicates the continued value of Human Intelligence in the process. In this case, coding and connecting raw objective features to better represent the types of ads that are effective or less effective.

Figure 6: Increase in AI model prediction accuracy when using Human Intelligence features



Source:
Sample of Creative|Spark Video survey tests in US predicted by Creative|Spark AI.

Two conditions:
1) using raw computer vision features only
2) Raw features + Human Intelligence developed Creative Best Practice features

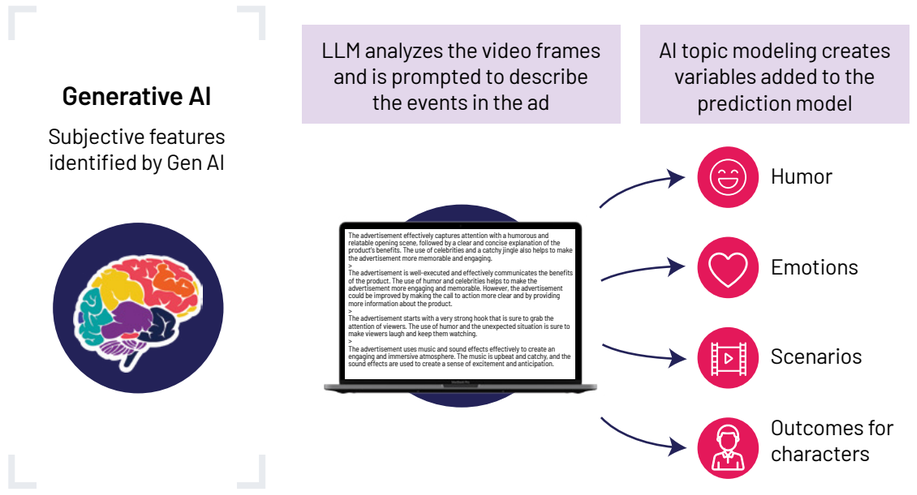
Generative AI can further Humanize AI prediction models

While the addition of Creative Best Practice features was an important step in our model development and signal for the value of Human Intelligence, we also asked what role Generative AI features could play in improving prediction quality.

As part of our ongoing investments to provide leading edge data and analytics services, Ipsos has made extensive investments in cloud computing infrastructure, Data Science and Engineering resources and licenses to advanced Generative AI models. An example outcome of these investments is our sandbox Generative AI model interface, Ipsos Facto. This interface provides a secure environment to upload documents and datasets to Large Language Models (LLMs) to query, augment and synthesize Ipsos datasets to add end value to the clients we serve. Whether that is in production efficiency or in enriching and expanding end client deliverables.

With Ipsos Facto available, we asked ourselves, can we access features from an LLM that describes the likely **subjective** experiences people would have when viewing ads? Such as humor, emotion, relationships, and new ideas and thinking. To answer this question, we uploaded a sample of video ads into an LLM and prompted it to describe what is happening in the ads, representing the types of subjective experiences we know are important to effectiveness.

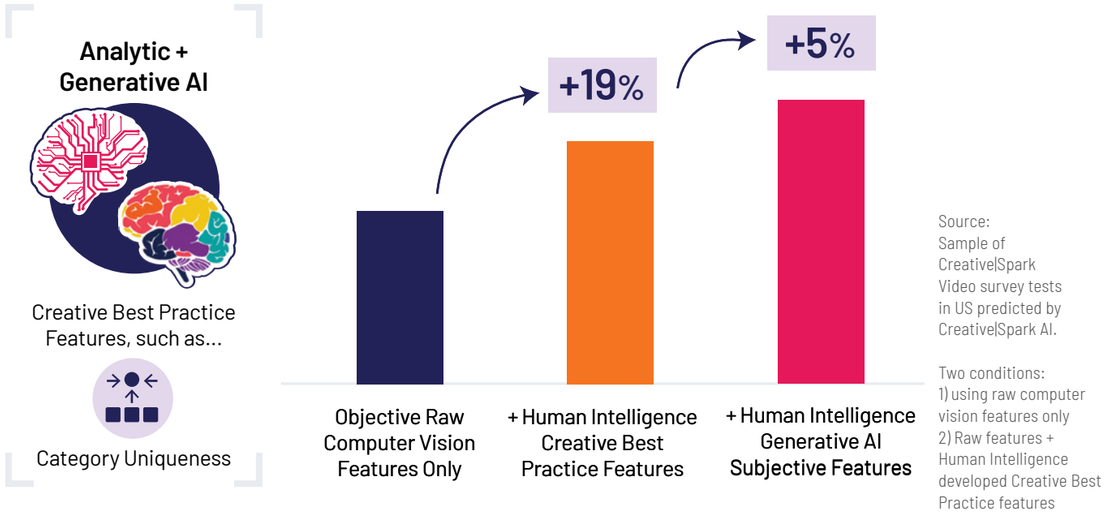
Figure 7: Using Generative AI features in AI prediction models



Source:
Ipsos

And the initial results are encouraging, with the addition of the subjective Generative AI features improving the prediction accuracy of some human response metrics by a further +5%.

Figure 8: Total increase in AI model prediction accuracy when using Human Intelligence features



Source: Sample of Creative|Spark Video survey tests in US predicted by Creative|Spark AI.

Two conditions:
1) using raw computer vision features only
2) Raw features + Human Intelligence developed Creative Best Practice features

> As a prediction, AI models will never fully be able to replace human responses in research, and as a tool they will always need careful supervision.

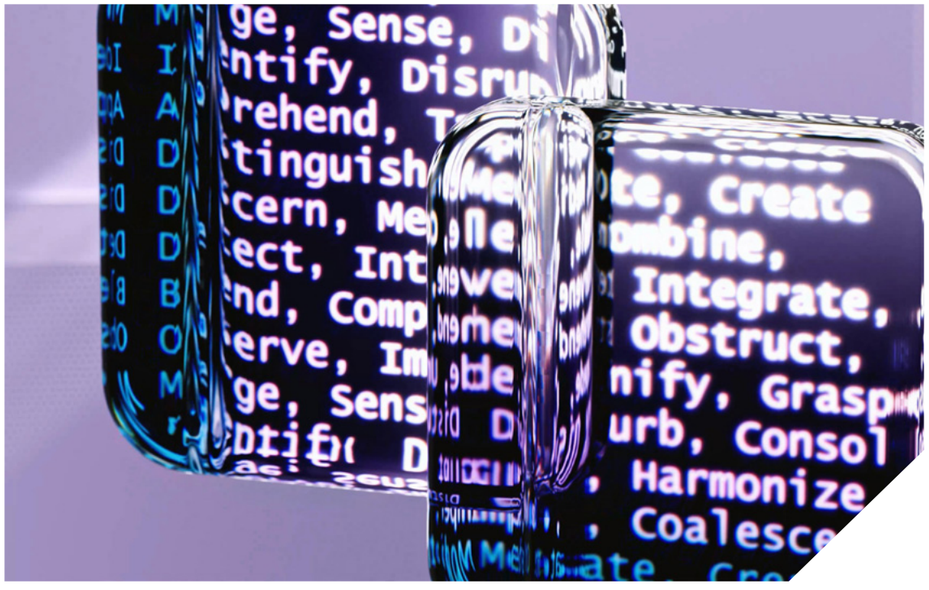
HI can fuel AI prediction accuracy, but there will always be limits

Based on these findings, we see a further signal of the value of Human Intelligence to increase the prediction accuracy of the AI model. In this case, human prompting of LLMs based on knowledge of advertising effectiveness and the use of Generative AI to provide subjective features to further increase prediction accuracy over what can be achieved with more traditional, yet useful, objective computer vision features.

In this process to develop an AI prediction model to evaluate ads, we have also recognized that it is on ongoing process. One of test, learn and optimization and with our ongoing investments in Generative AI technology, we will likely see further opportunities to improve prediction accuracy as new features are released from enterprise LLM providers.

And despite these encouraging improvements, we also recognize that these AI models remain a tool and a prediction of human responses. As a prediction, they will never fully be able to replace human responses in research, and as a tool they will always need careful supervision and, in the appropriate scope, interpretation, by advertising research experts to support advertising decisions.

In the following sections, we will explore these important considerations of interpretation and, given that AI models cannot fully replace human response research, how we guide our clients in their use as part of a wider set of tools and capabilities.



> Even with these HI optimizations the model may not value creative and MISFIT advertising, underpinned by empathetic experiences and new ideas and thinking.

Defining the right use cases

By combining both Analytical AI and Generative AI, we have a high quality solution to predict the effectiveness of advertising in minutes, with no costly data collection.

But before we get carried away, there is a common saying in the advertising industry, *"effectiveness first, efficiency second."* What that means is that we should maximize the impact of our work primarily. A small sales lift, delivered efficiently, will never be as good as a large lift. ROI (Return on Investment) and ROAS (return on ad spend) are efficiency metrics, but campaigns that deliver the highest net sales impact often have a lower ROI than smaller, low investment campaigns.

That applies here as well. One could stop using human responses and shift all creative evaluation to AI and it would save money and be "more efficient" in terms of commercial gains per dollar spent on research. In a siloed organization, reducing the advertising research budget in this way, while still delivering data to help make creative decisions, might be considered a great outcome.

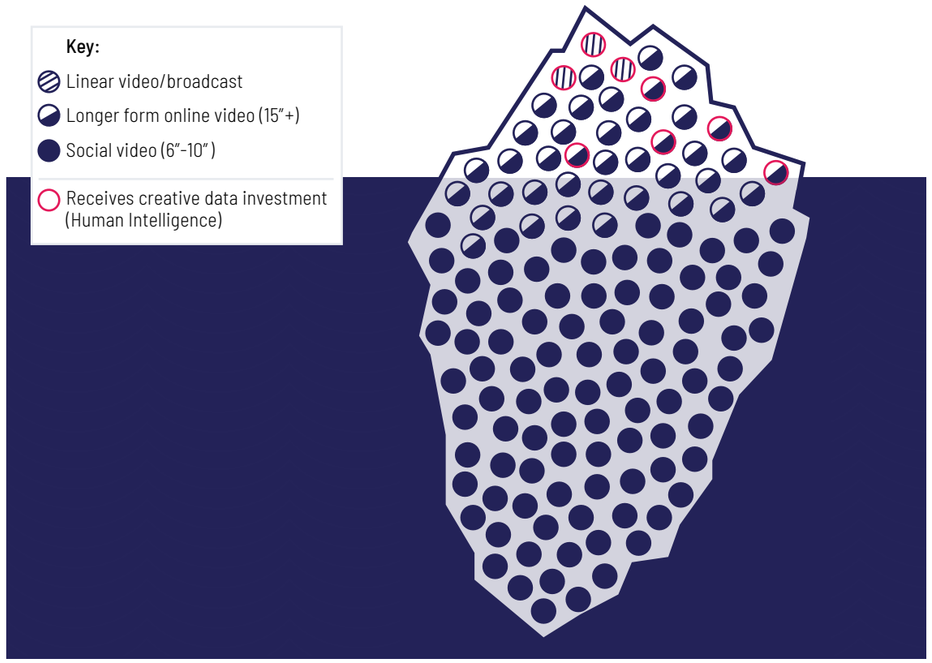
However, despite the best efforts to integrate Human Intelligence into the Creative|**Spark AI** model with subjective features from Generative AI and best practice features from our advertising knowledge, we need to accept there are still limitations to models trained on data from the past. Even with these HI optimizations the model may not value creative and MISFIT advertising, underpinned by empathetic experiences and new ideas and thinking. That is to be expected, until we reach a point where all human responses can be predicted by machines, and we cannot make claims to perfection. Our current results show that using Creative|**Spark AI** to screen creative will give a significant lift in effectiveness over no investment in research, but not to the level of collecting human responses via Creative|**Spark**.

What should we do with this new technology?

Let us return to how we opened this paper. We are in an unprecedented period of significant volumes of advertising generation. Thousands of new ads are launched every day, and the vast majority do not see any research or assessment before launch due to there not being an efficient way to learn, mainly due to the cost and timing constraints before launch. At best, there is a reliance on performance metrics, which are widely disputed to be inaccurate when it comes to measuring effectiveness. In the first few days and weeks that they go live there is an attempt to optimize results based on clicks, views, and interactions; yet these metrics do not align with in-market outcomes or long-term Brand Success.

Research investment is saved for the select few video ads that will garner the lion's share of media spend, TV or online video, and rightly so given the cost of high quality, primary data collection. To evaluate the hundreds and thousands of digital and social ads produced by a brand would certainly increase the effectiveness of the campaign, but at a cost that would quickly outweigh the gains.

Figure 9: Currently, only hero assets get any Creative Assessment

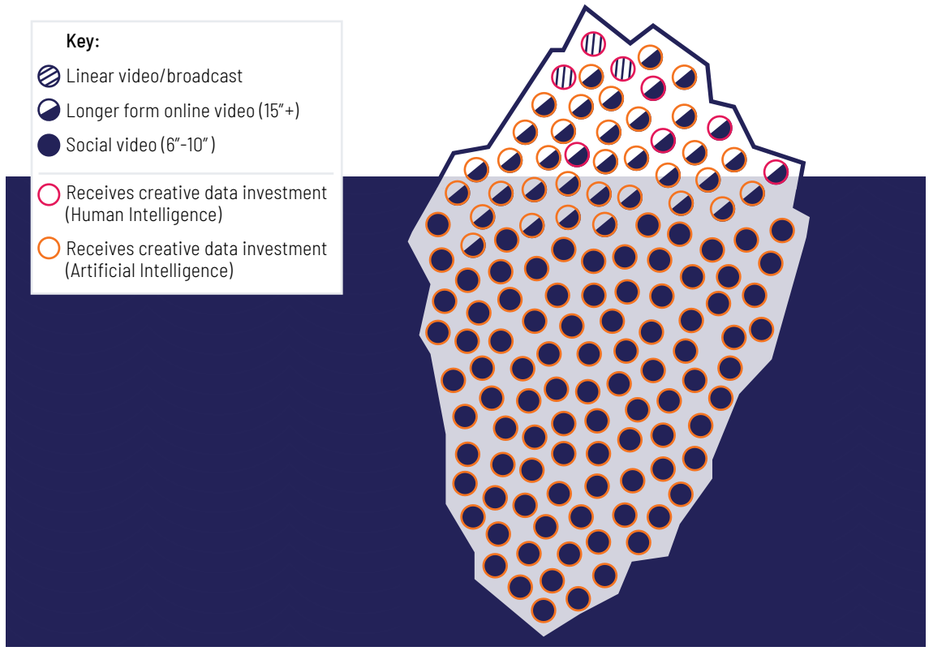


Source: Ipsos R&D

But this is where AI offers a new opportunity for marketers. Now one can measure how effective every ad is likely to be, in advance for lower spend creative assets that would not have attracted a research investment for reasons of cost and time. Now they can optimize and adjust spend plus flighting accordingly. All while continuing to use human response research for higher spend and risk creative assets, where the time and cost of research is worth the risk management investment.

> **Now one can measure how effective every ad is likely to be, in advance for lower spend creative assets that would not have attracted a research investment for reasons of cost and time.**

Figure 10: AI is an opportunity to assess more ads to drive effectiveness... but not at the expense of higher quality assessment for hero assets

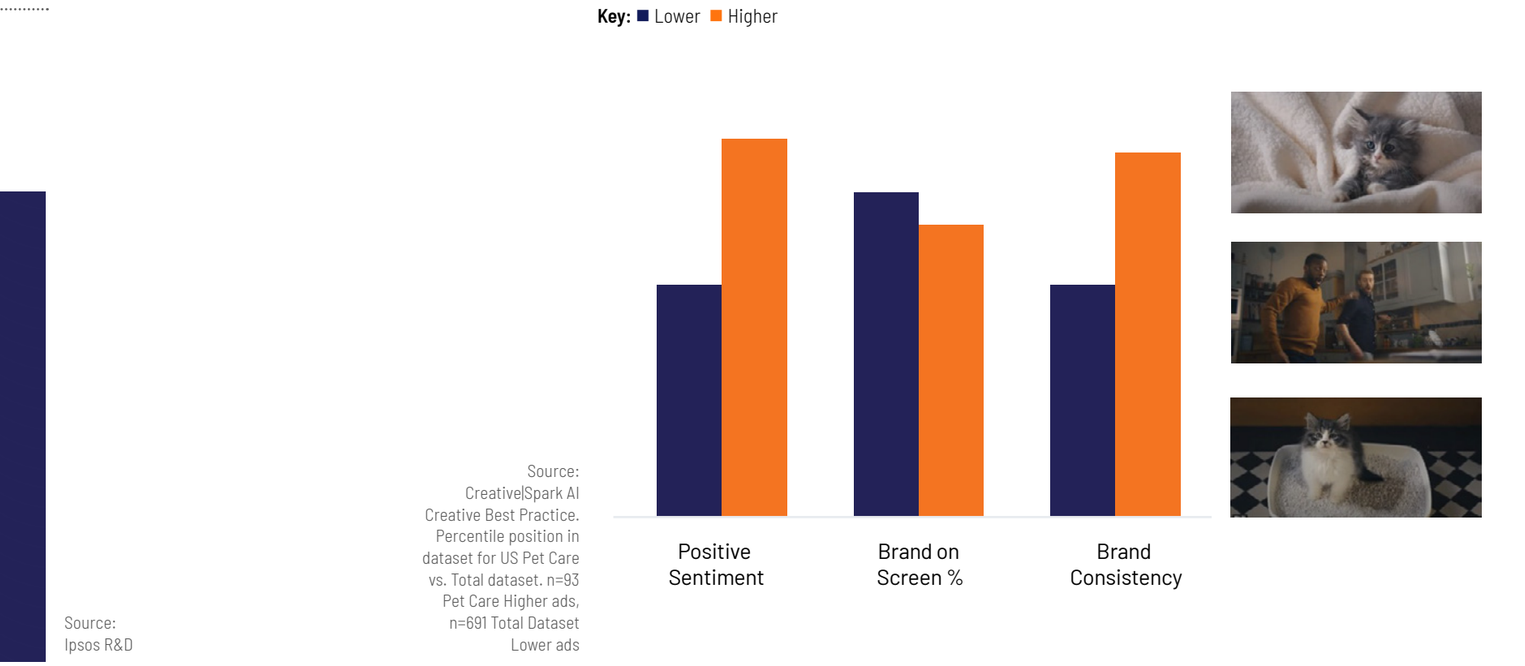


Source: Ipsos R&D

A fast, scalable opportunity to learn what drives effectiveness

AI models can also be used for competitive intelligence. With Creative|**Spark AI** you can readily look at how your competitors are shaping up, both in terms of effectiveness of their creative, and in the creative variables being used. As an example, we analyzed a set of Petcare ads and cross referenced the AI model prediction with the Creative Best Practice features. By doing this, we were able to quickly and cost efficiently identify that the amount of time the brand is shown does not drive effectiveness and instead, the use of consistent brand assets and features does. This in turn supported a business case for the marketer to creatively use their distinctive brand assets in future campaigns.

Figure 11: Percentile use of Creative Best Practise Feature



Source: Creative|Spark AI Creative Best Practice. Percentile position in dataset for US Pet Care vs. Total dataset. n=93 Pet Care Higher ads, n=691 Total Dataset Lower ads

> As with all data, we should never relinquish human decision making entirely.

Welcome to the future of HI + AI creative research

In the end, what AI offers us is a lot more data on a lot more ads than ever before.

As with all data, we should never relinquish human decision making entirely.

But for too long, the volume of ad creation has outpaced the amount of data we have been collecting about true brand impact.

With the combination of Human Intelligence and Artificial Intelligence, we believe that marketers are now better placed than ever to make data-informed decisions and increase both the effectiveness of their creative, and the efficiency of their advertising spend.

And what excites us, at Ipsos, most is that our advances in applying our Human Intelligence to these AI models is the first step to scale evaluations to support more advertising decisions. Let's take the journey together and use HI + AI to spark human creativity and further increase effectiveness.

Endnotes

1 Management consultancy, McKinsey & Company estimate AI will underpin approximately $500M of productivity value in the marketing function. McKinsey & Company. The economic potential of generative AI

2 Cannes Lions State of Creativity Report, 2022

3 Ipsos. Misfits: How Creativity in Advertising Sparks Brand Growth

Key takeaways

The Artificial Intelligence (AI) revolution in advertising will have a seismic impact in how we create ads and measure their effectiveness, and this could bring significant reductions in production and research costs. Yet without considered Human Intelligence (HI) these cost reductions could come at a price of creativity and effectiveness.

01 AI prediction models that evaluate ads without human responses risk undervaluing empathetic experiences and unique ideas and thinking. The very essence of MISFITS creativity and effectiveness.

02 When supported by HI advertising research expertise and leading edge Generative AI processing, AI models become more humanized, with increased prediction accuracy of human responses.

03 Even with these HI improvements, AI models should be selectively used, based on the media investment risk and strategic campaign direction.

04 AI models will not replace human response research, and instead will complement it, helping to evaluate more ads and support more business decisions to drive effectiveness.

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