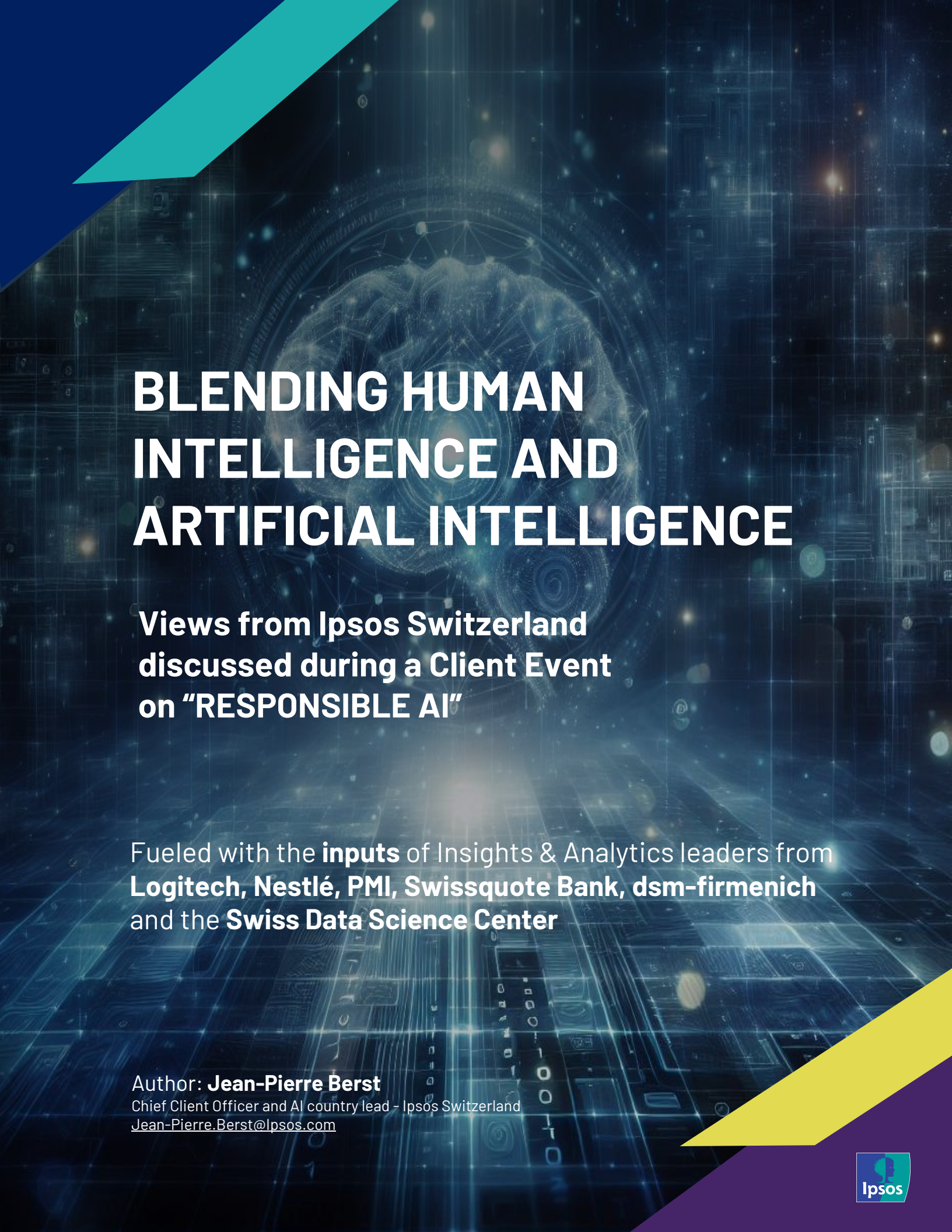

BLENDING HUMAN INTELLIGENCE AND ARTIFICIAL INTELLIGENCE

Views from Ipsos Switzerland discussed during a Client Event on "RESPONSIBLE AI"

Fueled with the **inputs** of Insights & Analytics leaders from **Logitech, Nestlé, PMI, Swissquote Bank, dsm-firmenich** and the **Swiss Data Science Center**

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AGENDA

The rapid evolution of Artificial Intelligence (AI) presents a compelling opportunity for businesses and the marketing research industry to **enhance our understanding of customer experiences, generate efficiencies, and develop differently new innovations/ creatives** (section 2 of this paper).

However, this transformative technology also necessitates a **responsible approach** (section 5), ensuring ethical considerations and robust governance frameworks are embedded in its development and deployment.

Other **common pitfalls to avoid** (section 3) go in pair with the opportunity to live an amazing period when we can all **pioneer AI** (section 7).

This document explores the perspectives of both Ipsos experts and clients from diverse industries on navigating the exciting and complex landscape of AI, emphasizing the importance of **testing and learning** (section 6) and **blending human and artificial intelligence altogether** (section 4).

Many thanks for their participation and inputs to:

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Mélissa Mougeot
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1. Reminder of few fundamentals of AI

Before diving into the complexities of responsible AI within a marketing research context, it is useful to establish a shared understanding of what AI is and its potential implications.
AI, as a concept is not new. In its simplest form it refers to the **ability of a computer or machine to mimic human intelligence**. This can range from simple tasks like recognizing patterns to more complex activities like learning, reasoning and problem-solving.

Let's first share few basic definitions related to a range of technologies related to AI:
-Machine Learning: Algorithms generated by data scientist that enable computers to learn from data without explicit programming, identifying patterns and making predictions.
-Deep Learning: A subset of machine learning that uses artificial neural networks with multiple layers to extract complex patterns from vast amounts of data.
-Natural Language Processing: NLP enables computers to understand, interpret and generate human language, facilitating communication and interaction between humans and machines.
-Large Language Models (LLMs): they relate to NLP. They are a type of AI that can understand and generate human-like text after being trained on massive amounts of data.

Under such technical considerations, there are important **things to remember about LLMs**. And those have a direct impact on best practices related to the usage of AI and how to do so in a Responsible way:

- LLMs are pre-trained predictive models and do not automatically learn
- They are usually trained on publicly available data (not domain specific)
- They are not search engines: they match patterns
- They have no understanding of the meaning of words
- They do not calculate : they search what the results of a calculation is
- Their performance relies heavily on the quality of the prompts - which are generated by us, humans

It is noteworthy that the algorithms used within the field of AI recur to statistical models used for decades by the Marketing Research industry: learn, simplify, classify or segment data.

Ultimately AI is a tool, and like any tool, it can be used for good or ill. This is where the concepts of i) **Responsible AI** and ii) always have **humans in the loop** come into play.

2. The transformative potential of AI applied to Marketing Research

Taking into account these design principles, we can see fantastic potential in the use of AI: its use is no longer a future phantasy but **a tangible reality** impacting almost all business sectors including Marketing Research, which is the focus of this paper.

For it, AI has started and will further help:

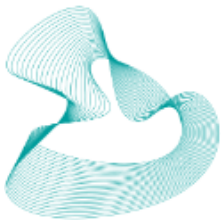
- **gain deeper consumer insights,**
- **generate efficiencies,**
- **drive better decisions**, as well as
- **creating new possibilities and innovate differently.**

Deeper consumer insights: AI is now here to help gain deeper understanding of consumer behaviour, preferences, and motivations. Use cases span from analysing multiple data sources including large volumes of social media conversations (unsolicited sources of information) through uncovering unmet needs to creative testing prior being on air. For example, Nestlé Confectionary Zone Europe leverage AI to gain consumer insights, particularly in creative testing. They also emphasize knowledge management as another important aspect of AI's potential: ***"AI is finally enhancing our ability to access and summarize existing insights, consumer verbatims, qualitative reactions and other observations" (e.g. videos).***

Creating new possibilities and innovate differently: AI can accelerate innovation cycles, enabling companies to develop new propositions faster. The "Front End Innovation" part of any New Product Development is a complexly new avenue of application (see InnoExplorer, section 7) and the ability to identify unmet needs, generate new insights, iterate and predict early the potential of new ideas in any product category... This benefit also includes leveraging AI for production line control, exploring innovative product designs, and personalizing customer experiences. Michal Piórkowski' from Philip Morris International (PMI), for instance, shares that they are ***"leveraging AI for production line control and exploring innovative product development"***, highlighting the importance of responsible AI implementation in highly regulated industries.

Gain efficiencies: a research project can uncover load of steps and tasks. The future of our industry is therefore bright with AI providing us to opportunity to do (some) things faster and better. We can name few: administrative tasks (meeting summary…), desk research (contextualize a proposition or analysis, illustrating trends…), translation (master questionnaire into its local versions, open ended questions, scripts, verbatims…), questionnaires (help to prepare and soon generate them, make them clearer and shorter…), interview guides (help our qualitative colleagues to prepare and soon moderate), data processing & statistical analyses (inc. coding of open ends, enrichment of lines of code…), prediction (inc. progress made thanks to machine learning to improve the accuracy of election polls in a context of decline of historical partisanship to rely on and last minute event amplified by social media…), reporting (inc. the next generation of data visualization, spelling and syntax review of a report, self-generated comments and headlines…).

Decision-making: dixit Lucrezia Bruni from SwissQuote Bank **"AI is supporting and augmenting human decision-making processes, leading to more informed and efficient decisions. This includes using AI for fraud detection, risk assessment, and data-driven policymaking"**. And another AI and Data analytic leader to comment he employs "**AI to enhance user experience and support government clients in making data-driven decisions, emphasizing the role of AI in improving efficiency and decision-making processes**."



3. Preventing common pitfalls associated with AI by applying a relevant framework

A well known expression is "the sky is the limit". As we are all discovering and embracing gradually the potential of AI, it's useful to be aware of potential pitfalls to actively mitigate them.
At Ipsos and having in mind the market we are operating in, we consider here:

Bias: Humans are biased, we know it. It's nice to remember GenAI can be even worse. GenAI models are only as good as the data they're trained on. It means current models tend to reproduce an inherent bias (be it gender, age, race…) in the underlying data they have been trained on.

Loss of control: You may have read how Microsoft was criticized for embedding a self-generated AI poll against a News article in Australia. The news story was about a woman's death and invited readers to speculate on the cause of death - understandably drawing a very negative reaction.

Privacy, security & confidentiality: AI systems often rely on vast amounts of data, raising concerns about data privacy and security. Robust data governance frameworks and security protocols are essential. Not having a secured system may lead organizations to face the similar and well know story of a worker from a leading tech company who made a major error by using ChatGPT, meaning that confidential Samsung meetings notes including new source code were leaked in ChatGPT and therefore joined a public domain.

Hallucinations: some LLMs still have the potential to hallucinate and produce responses that are inaccurate or just completely untrue. You may have heard the story about a lawyer representing a US citizen who sued an airline company and prosecuted a case using completely made-up citations that he'd got by asking ChatGPT. It did not go that well…

Loss of context: publicly available information on the internet is potentially the main source for quite some AI models. We may want to remind ourselves that a vast volume of it is written in English and comes from Anglo-Saxon countries. Culture is critical if we want to understand any consumer, customer, patient or citizen. AI is known at presenting risks damaging everyone' efforts around diversity and inclusion by reinforcing stereotypes and often favoring groups such as white males at the expense of others.

4. Human in the Loop

This all goes to show that we have to have **humans in the loop.** There are so many things GenAI does not or cannot do alone yet.
You (clients, insights & analytics managers, marketers…) **and us** (consumer experts, consultants or project managers), **we are all critical:**

- for verification (accuracy) and activation (decision)
- at the start, in the middle and at the end of the process
- for prompt engineering, for training models and for output activations

So how can we -humans working for our organisations- avoid the main pitfalls presented earlier on? Ipsos is recommending applying an **evaluation framework** based around three key concepts:

Truth: Is AI delivering **accuracy**? Are its **outputs** correct and not false fabrications? Sometimes it's not on the first or second attempt and refinement is needed. As decisions are taken for the information and recommendations we provide, it's on us -humans- to check that this is all true.

Transparency: Can you **explain** and source the outputs and where they come from? As the humans in the drivers' seat, it's on us to see inside of the mechanism to understand how it works.

Justice: Are you on the right side of ethics, fairness, security and, sometimes, of the law i.e. privacy, rights and responsibilities. Here as well, the human we are – being on the client or agency side- has to step back and keep in mind how we treat participants to our survey and client data with integrity

We need to apply this framework because letting GenAI run free can have negative consequences… In the end, **humans are and will remain accountable of our recommendations and decisions**. AI won't.

5. Responsible AI: navigating ethical considerations and governance frameworks

Let's elevate the discussion even further. While acknowledging the transformative potential of AI, it is crucial to address the **ethical considerations** and **potential risks** associated with its use. **"Responsible AI"** is not just a nice-to-have. It is essential for building trust and ensuring AI benefits society as a whole. As a governance framework, responsible AI documents how a specific organization addresses the challenges around AI in the service of good for individuals and society. To note, this is not only coming from us but also from the persons in charge of data-based decision making at top-tier companies.

Data quality and governance: High-quality data and robust data governance frameworks are paramount. ***"We've learned that we will not be better with [AI], but it will be faster to where the human brain will be useful",*** dixit a Data science lead. Back to the data collected for marketing research, good data is a must to train models. Fraud is a reality and is increasingly sophisticated. And on the other side AI can be leverage to better identify fraudulent respondents, questionnaires' straight liners and other bots.

Skilled workforce: A skilled workforce capable of using AI responsibly is essential. This means employees should have the knowledge and skills to understand the ethical implications of AI, as well as the ability to use AI in a responsible manner. ***"Generative AI is the first technology that can hallucinate across all domains of knowledge. Understanding when and how it can happen and being able to course correct is an essential skill for those using GenAI. We need to ensure this skillset is continuously strengthened within the company"***, Michał Piórkowski – Philip Morris International.

Algorithm appropriateness: Selecting appropriate algorithms for specific applications and understanding their limitations is crucial. Marco Ghislanzoni from dsm-firmenich cautioned, ***"There are a lot of areas that we can apply it to, should we apply AI everywhere? Probably not."***

Governance frameworks: Strong governance frameworks are needed to define the rules and regulations that govern the use of AI. These frameworks should ensure transparency, accountability, and fairness in AI development and deployment. Proponents of responsible AI hope that a widely adopted governance framework of AI best practices makes it easier for organizations around the globe to ensure their AI programming is human-centered, interpretable and explainable.

Ethical implications: Understanding such potential benefits and risks of AI is paramount. This includes considering the impact of AI on jobs, privacy, and social equity. Using AI responsibly should increase transparency and help reduce issues such as AI bias.

Bias and fairness: Addressing potential biases in data and models to ensure fair and equitable outcomes is paramount. Michal Piórkowski from PMI stated, "***The closer the decision-making system is to a human, the more rigid policies, governance for AI, we have to put in place".***

Sustainability: Considering the environmental impact of AI systems and exploring energy-efficient solutions is increasingly important, reflecting the growing concern about the ecological footprint of AI technology.

Human expertise: Integrating domain expertise in training, evaluating, and interpreting **Human expertise**: Integrating domain expertise in training, evaluating, and interpreting AI models is essential. Mélissa Mougeot from Nestlé noted, ***"AI is fantastic with many things to gain, being speed or agility... but also watch out: we need to be very knowledgeable about the data we treat, as well as to understand well what the model is not delivering."***

6. The need to experiment and progress fast within a secured environment

The AI landscape is constantly evolving. As developed earlier on, new technologies, applications and ethical considerations emerge regularly.
To stay ahead of the curve and harness further the potential of AI, a culture of experimentation and test & learn culture is essential. Agile sprint principles apply nicely the AI world as organizations need to experiment and pilot AI solutions within a secure environment. This is how is avoided any "shiny object syndrome", and how the focus remains on what matters: adding value and driving business impact.

Key considerations for experimentation and piloting include:

Start small:

Begin with pilot projects that address specific use cases, allowing for controlled experimentation and learning.
At Ipsos we started doing so in January 2023. We injected 150+ business use cases in our pipeline, amongst which our Group prioritised 30 main initiatives. The final section of this POV will provide a flavour of this outcome and introduce a first set of new solutions launched/to be launched next to our experimentations and validations.

Secure environment:

Ensure that AI systems are developed and tested in a secure environment to protect sensitive data and prevent unintended consequences.
At Ipsos our employees work with "Ipsos Facto", our own GenAI sandbox. Ipsos Facto is safe and platform agnostic, incorporating LLMs from OpenAI, Google, Anthropic and Mistral. All inputs and outputs are stored on Ipsos controlled servers only. Everything developed within Ipsos Facto contributes to our core Marketing Research priorities and needs (while other systems developed by large companies would have a broader corporate consideration and therefore not a consumer centric focus).

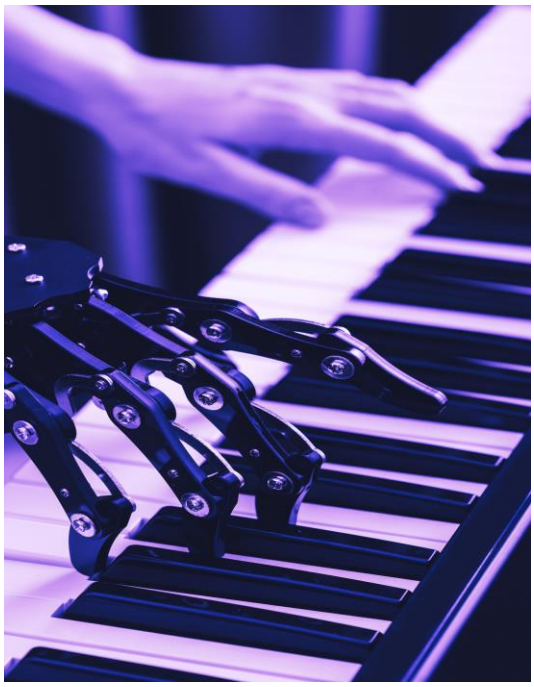
Learning and iterative approach:

Embrace an iterative approach, continuously refining our prompts based on feedback and real-world performance.
As a client, upscaling and training your team is probably even more important than the technicalities associated with AI models and techniques.

The **democratisation of AI** -so to make it part of the daily routine of employees- is highly important. At Ipsos, we are training our teams, running co-development sessions, setting up groups of ambassadors, running internal sharing and other "Inspiration Days".

Collaboration:

Foster collaboration between data scientists, domain experts, and ethicists to ensure a holistic and responsible approach to AI development.
At Ipsos we are organized by Service Lines, i.e. verticals to provide the best expertise and most appropriate solutions to our clients. After we complement it with a central AI team which is paving the way for us.



7. Ipsos is committed to pioneering AI solutions that blend AI+HI

Ipsos is investing and committed to pioneering AI-boosted solutions that empower clients to make better decisions.

Within our own innovation roadmap, we can include solutions we already tested, validated and therefore launched, as much as other ones to come.

InnoExplorer:
A framework for developing stronger innovations.
Its objective: enhance the speed and success rates of concept and product development.

Product Transfer:
A framework for capturing consumers' cultural differences + similarities of countries on category drivers + sensorial preferences + how consumers use scales differently.
Its objective: predict how products transfer across markets.

InnoPredict AI:
A solution that unites: i) the efficiency of machine learning algorithms; ii) the integrity of fresh consumer feedback and iii) the validity of Ipsos' vast innovation database.
Its objective: sort and prioritize your most promising ideas with confidence.

Signals GenAI:
Leveraging LLMs to analyze social conversations.
Its objective: turns vast amounts of data into action-ready insights in >60 seconds.

Persona Bot AI:
Enabling conversations with segmentation-generated consumers.
Its objective: bring segments to life by interacting and extending beyond the survey

Censydiam AI:
A qualitative research solution that uncovers consumers' subconscious motivations.
Its objective: uncover deep human emotions alongside claimed ones.

AI boosted workshop:
Combines expert facilitators with Ipsos Facto.
Its objective: bring further external perspective and contribute to successful co-creation workshops.

Creative Spark AI:
AI analytic model trained on over 13'000 Ipsos ad tests in the last 5 years.
Its objective: to instantly predict comms performance KPIs on video assets, TVC and social platforms and provide guidance and understanding prior going on air.

... and many more to come.

To conclude

1 (Gen)AI is an enabler for speed, efficiency, innovation and creativity

2 Human Intelligence must remain at the heart

3 An exciting open future where much more innovation will emerge

The era of AI is upon us, presenting both unprecedented opportunities and complex challenges.

By fostering collaboration between human intelligence and artificial intelligence, embracing responsible AI principles, and continuously adapting to the evolving technological landscape, **we can harness the transformative power of AI for the betterment of society**.

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