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Get Started Guide

Qualitative AI Quick Start Guide

FORWORD

When I graduated from my MSc in Artificial Intelligence in 2003, the field was in its infancy, and even simple practical applications were a distant dream – let alone anything related to accurate understanding of human emotion. But I was in love with this dream, and even though my true calling ended up being in qualitative research, I never lost sight of it.

Fast-forward to 2023, and the AI revolution is well and truly upon us. We have all been using discreet AI tools daily for years, such as Netflix recommendations, automated translation, and GPS guidance, but the arrival of ChatGPT and its siblings signals a sharp turn in what AI can do for us in our work and life.

In the next few pages I will give you a very brief overview of what AI is, how it can help make your qualitative research faster, more cost-effective, and more persuasive.

As you can guess I am passionate about the subject and never miss an opportunity to discuss it, so please don't hesitate to contact me if you want to have a chat!

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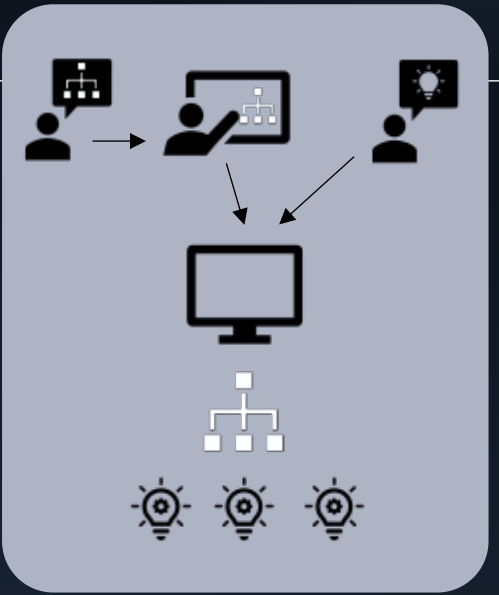
What Is AI?

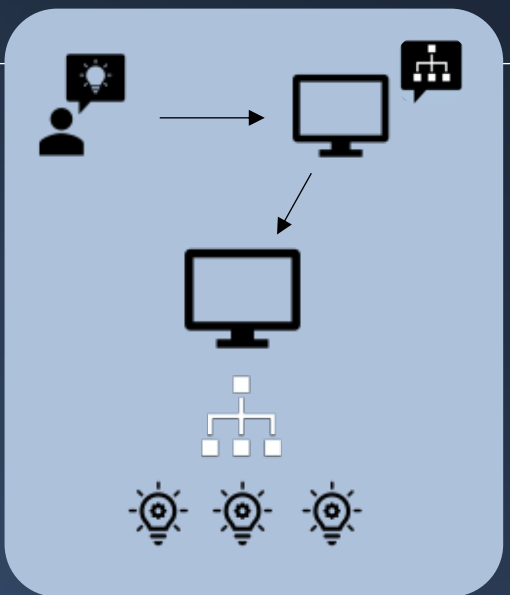
Generally speaking, the term "Artificial Intelligence" (AI) refers to the ability of computers and machines to mimic human cognitive activity, delivering results like analysis, creativity, dialogue, or decisions at or above human levels.

The Early Days



Until recently, AI followed rigid programs. Machines had to classify data in a top-down approach.

This needed unambiguous definitions for every possible concept and process. It was difficult, expensive, and prone to errors outside of very narrow, specialized fields.



Today's AI and how it works

The current. AI explosion happened when we started letting computers organize the data themselves (using 'neural networks').

This method only became practical recently as it needs thousands of times more data and processing power to create a working model.

The resulting AIs are not as rigidly controlled, but they are infinitely more flexible, robust, and able to learn.

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Modern AI systems can be trained to perform a wide variety of tasks, such as recognizing patterns, making decisions, and solving problems.

They are trained to perform these tasks by analyzing large amounts of data and learning from it, and they can continue to improve as they are given more data and experience.

In the coming years, the growing ability of AI to create machines that can think, reason, and act like humans will make our work and lives easier, more efficient, and more productive.

AI 7 Patterns Of Use Cases

Source: Forbes 2022

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AI Can Solve the top challenges of qualitative research

Do these top challenges experienced by insights professionals experienced in 2022 ring a bell?

- Speed to deliver (30%)
- Budget constraints (28%)
- Not enough time to influence the business (28%)

AI is now actively alleviating these issues for thousands of researchers every day. If you are wondering whether it could do so for you – let us answer with an emphatic 'Yes'.

It is estimated that the rise of AI will eliminate 85 million jobs and create 97 million new ones by 2025 – and inevitably some of these losses and gains will take place in the qualitative research industry.

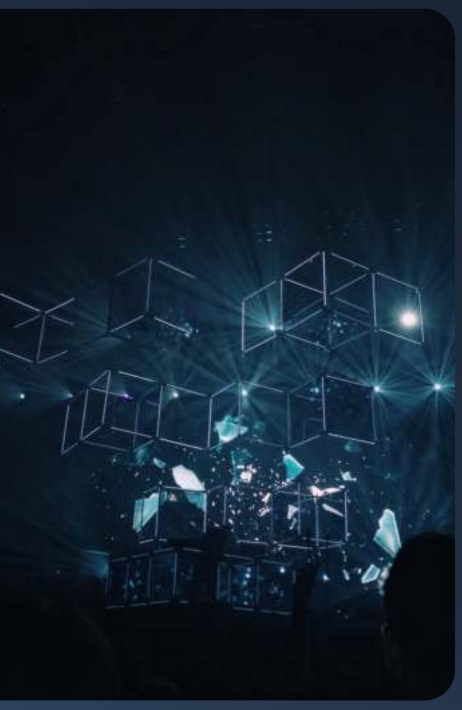
Accelerating advancements in AI indicate that it will very quickly become a fundamental part of the qualitative research world. Right now, machines can reliably help with a lot of the heavy lifting for many of the the simple but labor-intensive parts of qualitative research.

Source: All Things Insights – Spends & Trends Report 2022

Why Use AI In Qualitative Research?

Just because you can use something, doesn't necessarily mean you should. But - with 43% of insights professionals already using AI tools, it's now clear that AI can provide real value and help you and your team get to better decisions quicker - and cheaper.

1. Unparalleled Speed Of Research



AI can process large data sets within minutes, saving teams hundreds of hours better spent on strategic thinking and decision-making. Imagine reading 100 transcripts in 10 minutes, with full memory recall and the ability to cross-analyze!

Not only can this crunch timelines and budgets that often act as barriers to invest in qual research, but this also opens up the opportunity to recruit significantly larger sample sizes.

This can bring some of the robustness of quant research to qualitative, increasingly the weight of understanding deep emotional drivers – the real reason customers behave the way they do.

2. Bias-resistant Approach To Analysis

As humans, it is impossible for any researcher to analyze multiple data points with a perfectly consistent level of focus, and without placing weight on particular data points or early findings.

The organizational structure of many research agencies also dictates that at least part of the analysis is done by more junior team members.

AI analysis levels the playing field, ensuring every single data point is considered against the same criteria, to produce increasingly accurate and replicable results.

Digging Deeper

Influenced by emotions, memory and cognitive load, the subconscious has remained largely untapped in the majority of consumer research methodologies.

Today, using training data from thousands of laboratory studies and millions of data points, AI can accurately identify, measure and analyze subconscious indicators such as facial expressions, tone of voice, and sentiment.

These indicators can be objectively quantified and used for both insight gathering and to support emotion-related findings in a robust manner.

Choosing The Most Powerful AI Tools

Not all tools are created equal, it is important to know the right questions to ask when considering which tools to integrate into your current processes.

Here are the three main questions you should be considering when assessing potential new tools.

How is the machine learning managed?
What data was the machine trained with?
What is the level of accuracy?

How is the machine learning managed?

Continuous learning by AI tools should be rigorous and ongoing to ensure that AI uses relevant data to keep growing in precision and knowledge. This requires human input to check inputs and outputs, and to make necessary adjustments.

While the workload of individually checking every single data point by hand is unsustainable, a certain amount is absolutely necessary. Jade Kite recommends engaging with tools that use human scrutinization across 5-10% of the data as continuous quality control.

What data was the machine trained with?

AI is only as good as the data it has been trained with. Both quantity and quality are required for accurate training. Ideally, datasets of millions (or even billions) of data points are preferable.

In niche areas such as emotional qualitative research, we have found that data sets of a few hundred thousand of high-quality data points are often enough for a decent starting point.

Quality data where emotional AI is concerned comes from long-form, authentic human communication, such as transcripts and past research, that have been painstakingly reviewed, tagged and quality checked by multiple experienced researchers. Low quality data comes from scraping online sources such as Facebook and Twitter, which often do not give the emotional depth required.

What is the level of accuracy?

Developers will always be aware of the level of accuracy of current outputs – ask for them. The right tools should have academic research to support these claims, ideally published as whitepapers.

While it is up to the individual to assess what level of accuracy they are willing to accept in line with the value to tool provides, we typically consider tools with a minimum 85% levels of accuracy, and work regularly around the 95% mark.

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AI Glossary To Get You Started

Here are some important terms and definitions related to AI and its applications

1. **Machine learning (ML):** A subfield of AI that focuses on building algorithms and models that can learn from and make predictions or decisions based on data.
2. **Neural networks:** A type of machine learning algorithm modeled after the structure and function of the human brain, used to perform tasks such as image and speech recognition.
3. **Natural language processing (NLP):** A branch of AI that deals with the interaction between computers and humans using natural language.
4. Computer vision: The field of AI concerned with enabling machines to interpret and understand visual information from the world, such as images and videos.
5. **Deep learning:** A subfield of machine learning that uses multi-layer neural networks to perform complex tasks, such as image and speech recognition.
6. **Reinforcement learning:** A type of machine learning that involves training algorithms through trial and error to maximize a reward signal.
7. **Generative models:** A type of machine learning model that generates new data similar to the training data, such as generating text or images.
8. **Supervised learning:** A type of machine learning where the algorithm is trained on a labeled dataset, and the goal is to make predictions for new, unseen data.
9. **Unsupervised learning:** A type of machine learning where the algorithm is trained on an unlabeled dataset, and the goal is to find patterns or structure in the data.
10. **Semi-supervised learning:** A type of machine learning where the algorithm is trained on a combination of labeled and unlabeled data.

Still have questions? If you're curious about:

- How to integrate AI into your current research methodologies?
- Which AI tools are right for your current problem?
- How AI can predict the future

Book a call with Sidi today!

https://calendly.com/sidilemine/intro-call-30-min