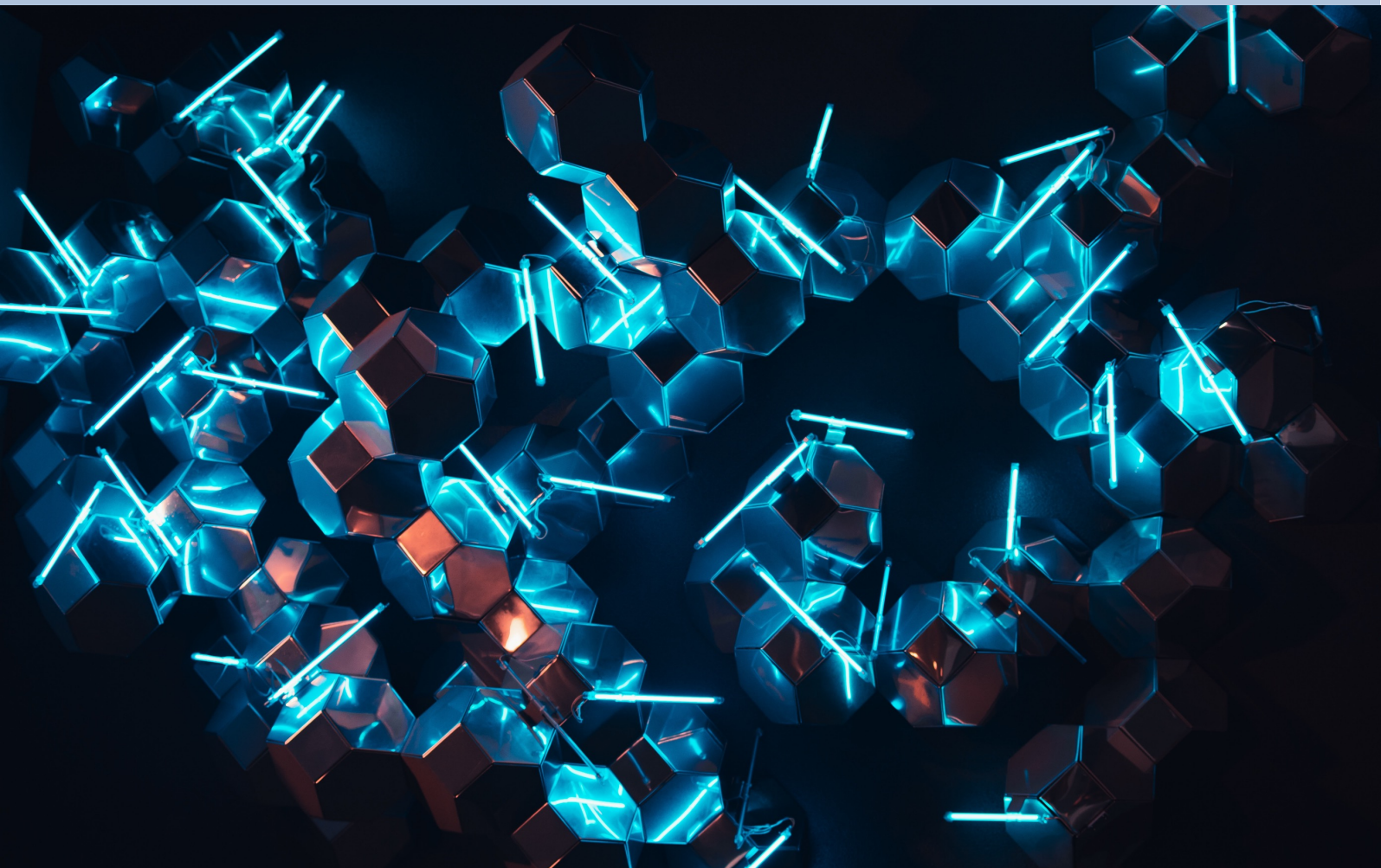


Quick Start Guide

Jade Kite's Intro to Qualitative AI



FOREWORD

I graduated from my MSc in Artificial Intelligence in 2003.

AI was in its infancy, and practical applications (particularly when it came to human emotions) were still a distant dream, and I was in love with it. 18 years in qualitative research have taught me so much about emotional intelligence, but I never lost sight of the infinite potential of AI.

Fast-forward to today, and the AI revolution is well and truly upon us. We have all been using AI daily for years with Siri / Alexa, automated transcription / translation, and even Netflix recommendations. We are now witnessing an explosion in how much 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, and explain how it can help make your qualitative research faster, more cost-effective, and more persuasive.

As you can probably 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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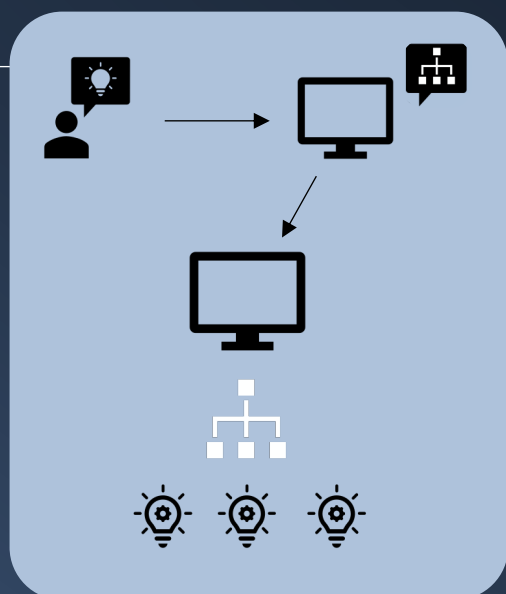
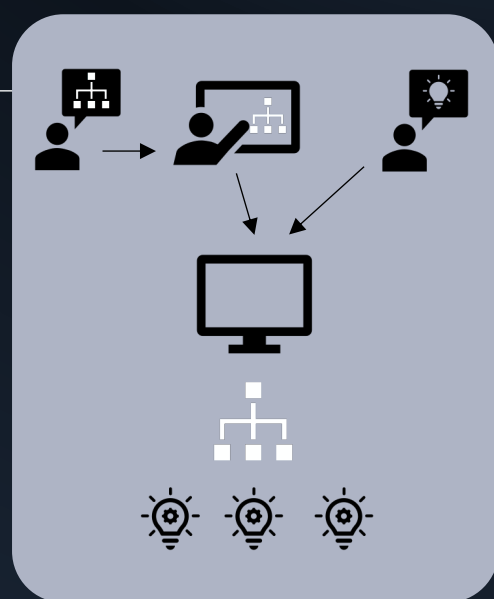
What Is AI?

The term "Artificial Intelligence" (AI) refers to the ability of computer systems to mimic human thinking, 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 virtual '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.

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 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’.



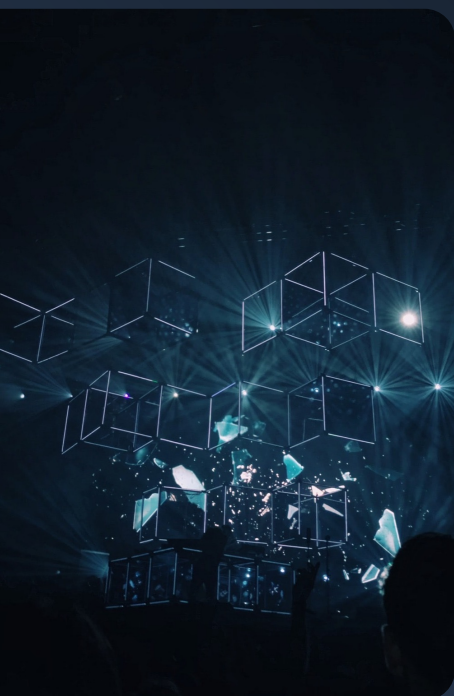
It is estimated that the rise of AI will eliminate 85 million jobs and create 97 million new ones by 2025 – and inevitably some of these losses and gains will take place in the qualitative research industry.

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 qual research.

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. Accelerated Speed



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.

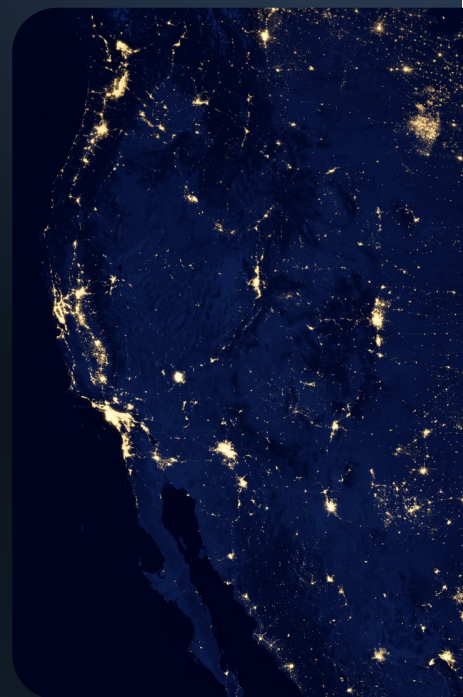
This can bring some of the robustness of quant research to qualitative. Increasing the weight given to the why (deep emotional drivers) over the what (quant description) of customer behavior makes brand strategies more impactful, cost-effective, and long-lasting.

2. Bias-resistant Approach To Analysis

Expecting human researcher to analyze large, complex data sets with perfect consistency and zero bias is unrealistic.

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

AI analysis can ensure every single data point is initially given the same weight against the same criteria, for increasingly accurate and replicable processes and results.



3. Digging Deeper



The subconscious, influenced by emotions, memory and cognitive load, has remained largely inaccessible to the majority of research methodologies.

Today, using training data from thousands of scientific studies and millions of data points, AI can accurately identify, measure and analyze subconscious indicators of emotion, e.g. facial expressions, tone of voice, and sentiment.

These indicators can be objectively quantified and used for both initial insight exploration and to support emotion-related findings in a more convincing manner.



Choosing The Best AI Tools

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

We recommend working with AI providers that practice high model and data transparency. Here are the three main questions you should be considering when assessing potential new tools:

1. How is the machine learning managed?
2. What data was it trained with?
3. What is the level of accuracy?

1. 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.

Individually checking every single data point by hand is unsustainable and counter-productive, but a certain amount is absolutely necessary – and a small amount is often sufficient. **Jade Kite recommends engaging with tools that use human auditing 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. When checking the training data, always prefer datasets that have made a conscious effort towards diversity and inclusivity across geography, gender, race, socio-economic, cultural, and other factors.

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 peer-reviewed white papers. A refusal to discuss this issue, or the ones above, should be taken as a red flag. Given the probabilistic nature of ML systems, claims of “100% accuracy” should also be viewed as unreasonable.

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.**

Data Safety

As researchers, it is our duty to both our clients and to our participants that all the data we process is kept confidential. Always ensure that your AI provider's platform provides safe "walled gardens" for processing and doesn't use your inputs as part of its training data.

For example, the user licenses of public platforms like OpenAI's ChatGPT explicitly state that they use all inputs and responses to train the model, which effectively breaks confidentiality; whereas enterprise solutions, built specifically for market research in partnership with OpenAI, can request to be use-only, with no risk of leaks.

Do ask your provider specifically how your data is processed, and do not accept vague answers. If working with European participant data, either request and verify GDPR compliance certificates from your providers, or take the time to expunge any possible identifiable data from what you wish to analyze.

Talk The Talk: An AI Glossary To Get You Started



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

1. **Machine learning (ML):** A type of artificial intelligence (AI) that allows software applications to learn from the data and become more accurate in predicting outcomes without human intervention.
2. **Neural networks:** A type of machine learning that is modeled after the structure of the human brain. It consists of layers of interconnected nodes that process information and can be trained to recognize patterns in data.
3. **Natural language processing (NLP):** A field of computer science and artificial intelligence concerned with the interactions between computers and human languages. It involves developing algorithms and models that enable computers to understand and generate human language.
4. **Computer vision:** A field of study focused on enabling computers to interpret and understand visual data from the world around them.
5. **Deep learning:** A subset of machine learning that uses artificial neural networks with multiple layers to extract progressively higher-level features from data.
6. **Reinforcement learning:** A type of machine learning where an agent learns to behave in an environment by performing certain actions and receiving rewards based on those actions.
7. **Generative AI:** A type of machine learning model that generates new data samples that are similar to a given dataset (e.g. ChatGPT).
8. **Supervised learning:** A type of machine learning where the algorithm is trained on labeled data, meaning that each example in the training set includes both input data and its corresponding output label.
9. **Unsupervised learning:** A type of machine learning where the algorithm is trained on unlabeled data, meaning that there are no output labels provided for each example in the training set.
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>

