

Unraveling Data Quality Mysteries



Technology's Role in Market Research Execution

About Us



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What We'll Discuss

1. Data Quality **Overview**
2. Understanding Data Quality **Mysteries**
3. Leveraging Technology for **Data Quality**
4. Key Technological **Strategies**
5. Best Practices and **Recommendations**
6. Conclusion + **Q & A**

Data Quality Overview



Why is it Important?

1) **Reliable insights** – ensures that MR insights accurately reflect target market or consumer segment

2) **Effective decision-making** – reduces risk of costly business mistakes

3) **Deeper insights** – getting at the "why" of a participant's response

According to a **Q4 2022** study from **Kantar**, companies discard up to **38%** of the data they collect because of quality concerns and panel fraud.

Understanding Data Quality **Mysteries**

Common Industry Challenges:

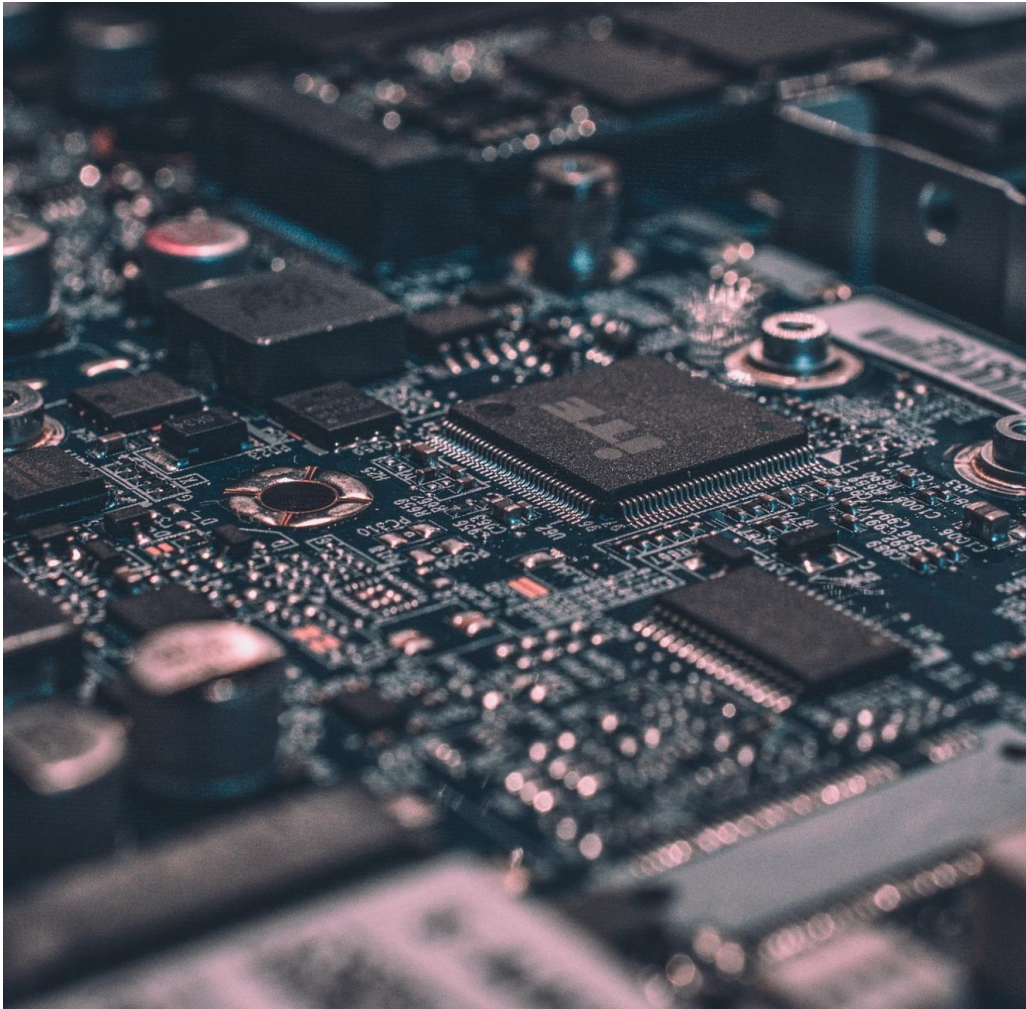
Non-traditional panel sources

Lack of profiling and known data on subsidiary sources

Too much reliance upon self reported data

Impact: poor data quality leads to unfavorable research outcomes and less intelligent decision-making.

Leveraging Technology for Data Quality



The Role of Technology

Increased Automation

- Removing human intervention & bias

AI-driven Analytics

- Real time decision-making capabilities

Level the Playing Field

- Doing more with less

Leveraging Technology for Data Quality



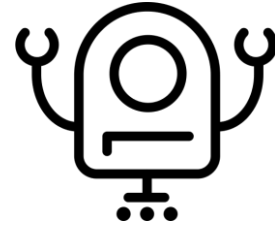
AI Sentiment Analysis

Validate open-ended survey responses in real-time



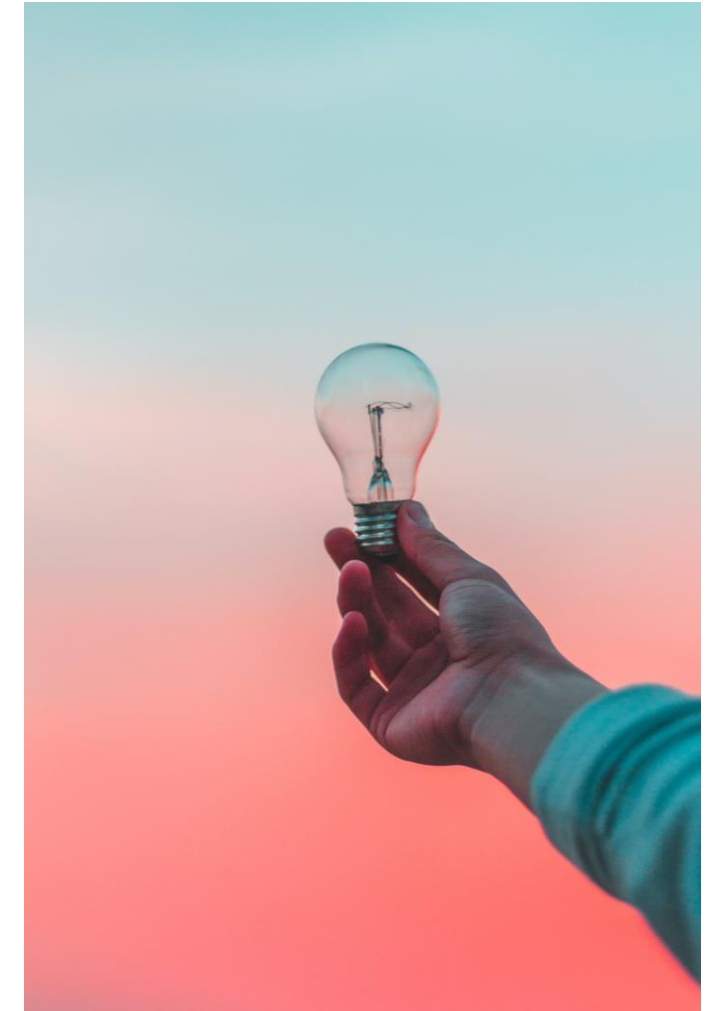
AI Coding & Theming

Real time coding and theme branching



AI vs AI

Detect & protect against AI generated responses



Key Technological Strategies – Research on Research

1. Utilizing AI to detect poor quality responses

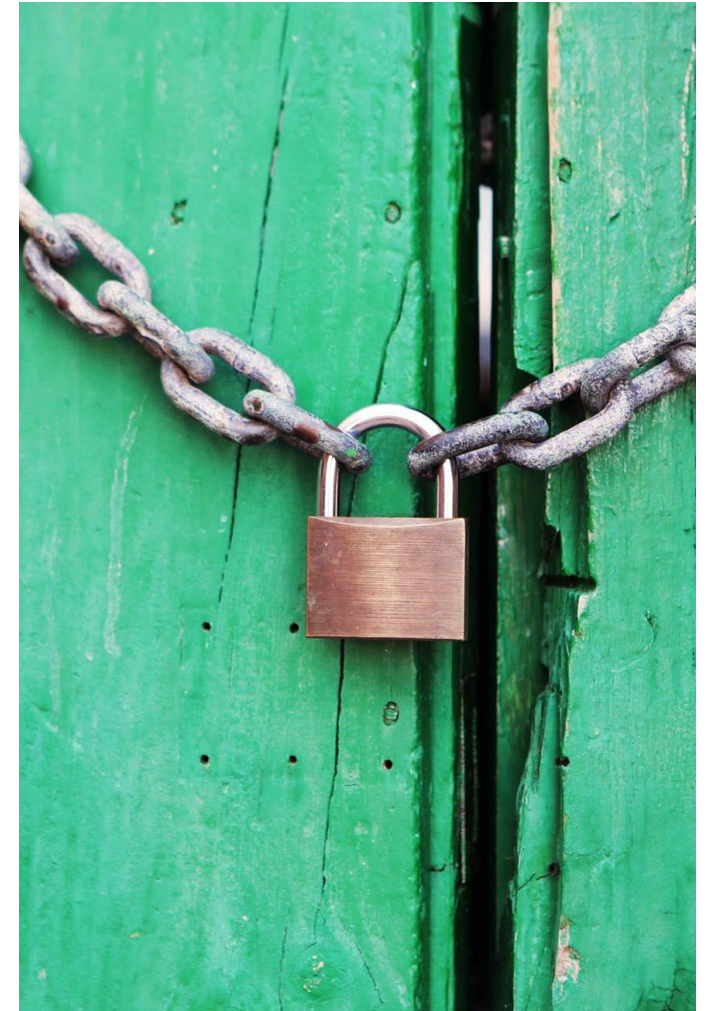
- Data cleansing

2. Comparing AI to Human Review

- Speed & Accuracy

3. Utilizing AI to enhance existing data

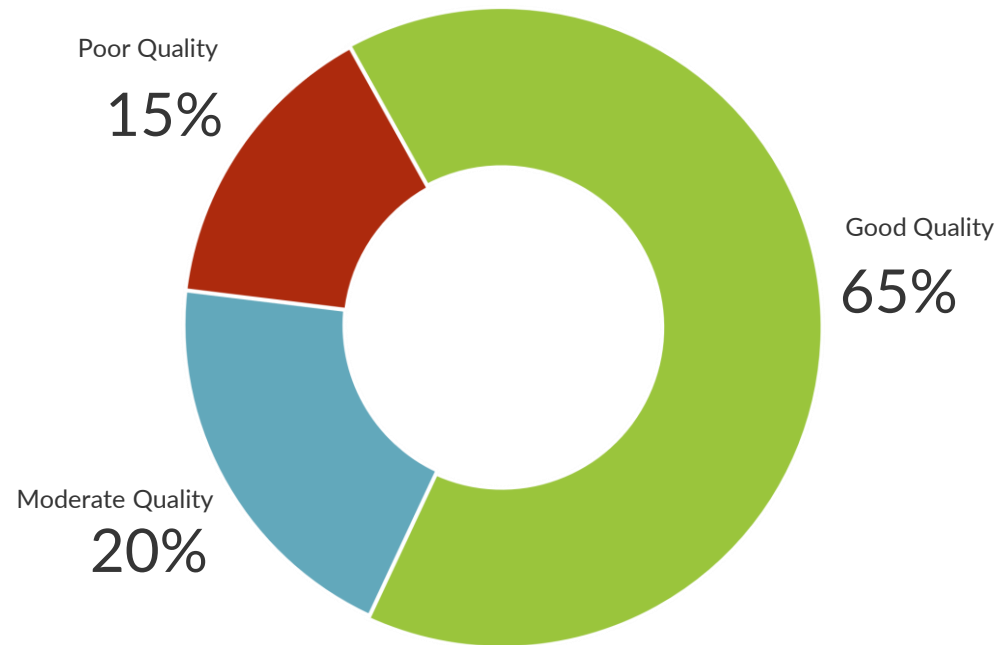
- Identifying themes for follow up



Utilizing AI to detect poor quality responses

Over the course of 24 hours, we interacted with >22,000 programmatically-sourced panel respondents across the United States, and used QuestionIQ sentiment analysis to assess...

How would you describe your overall survey experience?



Data Quality & AI Sentiment

Examples of "bad" sentiment responses:

I should I do with penny or tomorrow or Friday if I can do
that it would like to

I am ready to go to the office today is the
Greammntt get t get

jfkvkvpkves[fo[sfk[fksksdfsdkosdf

**What would these bad actors have done if they had actually
made their way into a survey?**

Comparing AI to Human Review

Question: Why do you most frequently visit this gas station?

Answer: Because it's a convenient station for me when I'm shopping and the price is lower

Human: Acceptable response

AI: Acceptable response, positive sentiment

Comparing AI to Human Review

Answer: I'm not sure if I will be there for you but if you don't have a good day I'll come to you

Human: Failed response

AI: Failed response, non-sentiment

Answer: Good for me

Human: Acceptable response

AI: Failed response, too generic of a response. Neutral sentiment

AI Sentiment Analysis - QuestionIQ

- Overview

An AI-powered tool designed to validate open-ended survey responses in real-time via API.

- Benefits & Applications

Can accurately determine the quality of an open-ended response in real time. Scoring can be used for routing (terminations or additional follow up questions).

Can determine a negative, neutral or positive sentiment to a question allowing for more in depth follow ups.



Utilizing AI to enhance existing data

We ran a research-on-research study comparing how people respond to traditional unaided and aided brand lists versus AI coded themes.

Split Test (National US, LDA 21+)

N=250

Unaided brand awareness

Aided brand list

Top mention

Top reason for brand preference

Generic follow up



Utilizing AI to enhance existing data

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Split Test (National US, LDA 21+)

N=250

Unaided brand awareness using QuestionIQ
Top reason for brand preference based on code
Specific follow up based on code



Utilizing AI to enhance existing data

Unaided / Aided:

Similar big box store references.

Key themes for choice: Convenience, Good Prices & Variety, Local and Clean

AI Coding

Additional regional and small to mid size stores

Additional themes for choice: Flavor, Friendly staff, Good Value, Promotions / Freebies, Taste & Value

CONCLUSION

- Real time coding provides flexibility, richer insights, and the potential for discovering new or emerging ideas.
- It allows for a more comprehensive understanding of consumer preferences, capturing a wider array of responses and insights.

AI Detection (AI versus AI)



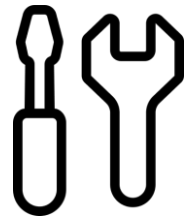
Character counts increasing in open ends

AI driven content can change, temperature creates varied output

Can use AI driven content to identify sub patterns and score

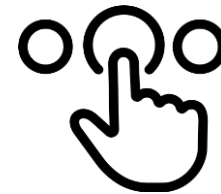


Best Practices & Recommendations



Tools

- Automation
- Leveraging AI



Implementation

- Quality control checks
- Feedback loops



Training

- Educate clients & team members on each project

Conclusion



Challenge

Researchers need to combat bad actors using AI



Evolution

MR must keep pace & implement AI where necessary



Results

Automation & AI will expedite research and how we field projects



Better Data Quality

Q&A

