



“Alexa, process this data for me” 3 ways the AI evolution is redefining how we collect market insights

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Amazon's digital voice assistant Alexa is much more than just a convenient tool for setting reminders, streaming music and controlling the lights in our homes. It is a very real application of Artificial Intelligence (AI), a technology that has fast become an integral part of our daily lives.

With all of the hype surrounding the more attention-grabbing applications of AI such as self-driving cars and super human-like robots - which most commentators say will be commonplace soon, it can often be difficult to appreciate just how much AI affects what we're doing right now. We have all become so accustomed to AI without even realising it e.g., the autocorrect function on our smartphones and the automatic tagging of friends in our Facebook photos are both powered by AI.

Because of its promise to do a variety of things that humans can do - only better, AI's transformative power has made inroads in a wide range of industries, not least healthcare and pharmaceuticals. From clinical research, to drug development, early detection and treatment, AI is revolutionising how these sectors work to improve patient outcomes. For patients, particularly those with chronic diseases, AI can help them to become much more compliant. Virtual assistants that send out digital voice reminders can be very effective in simply prompting patients to take their medication regularly and on time.

On the commercial side, it now plays an increasingly pivotal role in the process of gathering market intelligence and insights, helping to gather more accurate, in-depth information more quickly. Faced with increasing pressure to produce superior results, market researchers are using AI as a tool to help generate insights in a multitude of ways. Not only is it saving processing time, it is helping to find patterns in the data at a scale not previously possible. Right now, there are three ways the AI evolution is redefining how we collect market insights: engagement, analysis and decision-making.

Engagement: Effective market research relies on the continued cooperation of respondents with the research process. To get the most effective insights from patients, physicians and other key stakeholders, researchers must first ensure they are fully engaged – as a rule of thumb, higher engagement results in better quality data. However, ask any researcher what a key challenge of theirs is and they will quickly tell you - respondent engagement. The industry had been crying out for new methodologies and research tools that would help ensure respondents are more enthusiastic about participating in market research studies.

Over recent years we have seen market researchers use AI technology to deepen engagement with respondents. New digital methods for data collection such as online surveys, virtual focus groups and online communities have become much more effective thanks to AI. Chat bots and AI-managed interactive surveys are among a range of innovative research tools that are helping to upgrade the way researchers engage with their respondents. Using predictive modelling and principles of behavioural science, AI helps to both lead and engage in conversations, change the course of discussions depending on the topics that arise and 'mould' the design of questionnaires in response to previous answers.

Analysis: Advanced data and open-ended text analysis are two further examples where AI technology is making an impact in the healthcare market research industry. Processing large, unstructured datasets such as open-ended survey responses would have previously taken researchers a considerable amount of time to complete. Today however, AI is empowering researchers to finish these tasks in a much shorter amount of time. By applying Natural Language Processing (NLP) in combination with statistical analysis techniques to large volumes of written data, AI is helping to distil quantitative results. Tools such as Google's Natural Language API can recognise the category of text, analyse syntactic structure, and offer insights into the overall sentiment of what a respondent has said about a given topic. Similar platforms offer a whole host of other analytic tools including data cleaning, blending, document clustering and exploration, term document matrixes and text enrichment. When applied on a large scale, these can drastically reduce the amount of time it takes to analyse qualitative responses.

Facial analysis – which leverages AI to understand people's reactions to visual stimulus, is also being used to enhance the evaluation of healthcare communication materials. Artificial Emotional Intelligence (AEI) developed by emotion measurement company Affectiva can help detect emotional and cognitive states from faces and voices. Having analysed over 5,000,000 faces and 24,000 adverts to understand how people respond to digital stimulus such as advertisements and websites, they are able to help brands improve their advertising and marketing messages. WTheir technology has been widely adopted by the consumer industry and can, with some adaptation, work well in the healthcare environment to evaluate communications materials aimed at physicians, as we have experienced working successfully with pharmaceutical companies.

Decision-making: With AI, it is now possible for pharmaceutical companies to use their wealth of market research data to make strategic business decisions. Machine learning, which uses statistical techniques to give computer programmes the ability to "learn", is playing a huge role in optimising business operations. By integrating primary and secondary data sources and applying various modelling techniques, AI can identify patterns that might otherwise go unrecognised and can help marketers make quick tactical decisions. In addition, the technology can predict certain behaviours by determining how key variables will likely impact decisions, allowing marketers to evaluate different options and determine which will produce the best outcomes. This powerful tool is helping researchers to find actionable insights, project the future demand of products and forecast sales much further into the future.

AI is developing much faster than we thought possible, and speeding up exponentially. It is safe to say the power of AI is no longer limited to tech giants aiming to change the way we entertain ourselves using talking boxes in the corner of our rooms; it is actively shaping the way we live and work. New tools for engaging with respondent WVs and analysing market research data will continue to evolve over the coming years. It is important for healthcare market researchers to understand how to leverage these new technologies to gather actionable insights. Those that do keep up with the most cutting-edge tools will gain a competitive advantage and stay ahead of the game.