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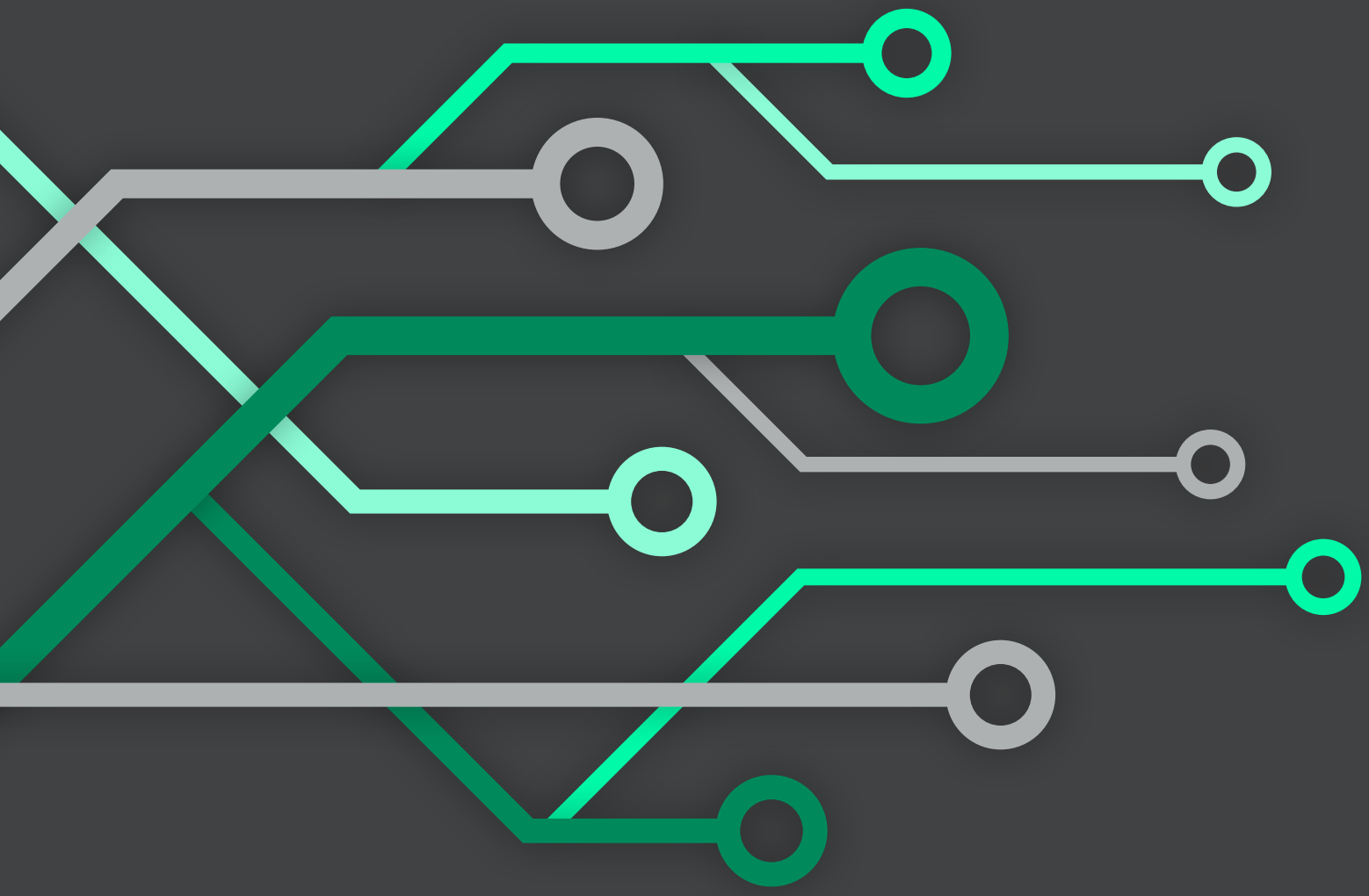
4 Technologies Disrupting Insights Management for Medical Affairs



A guide to the innovations enabling a more strategic future

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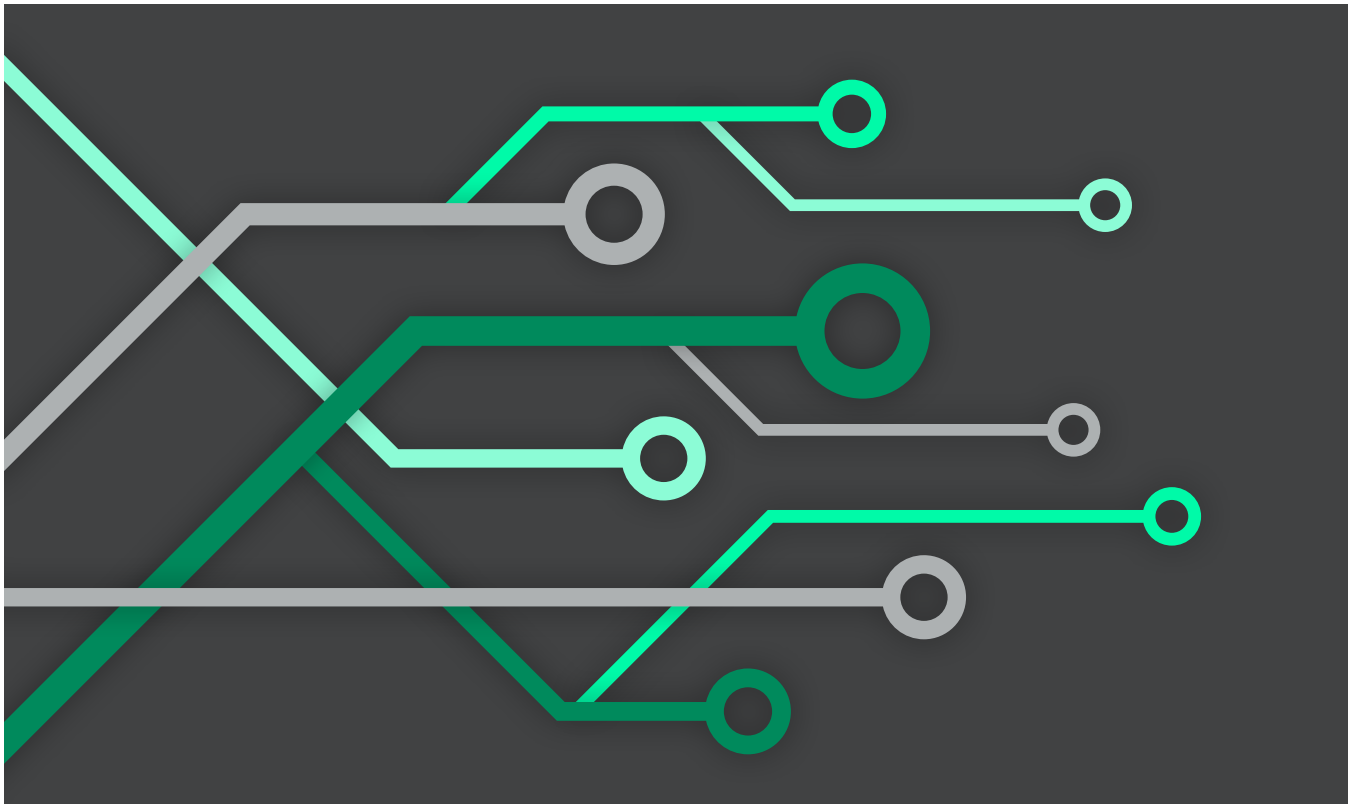
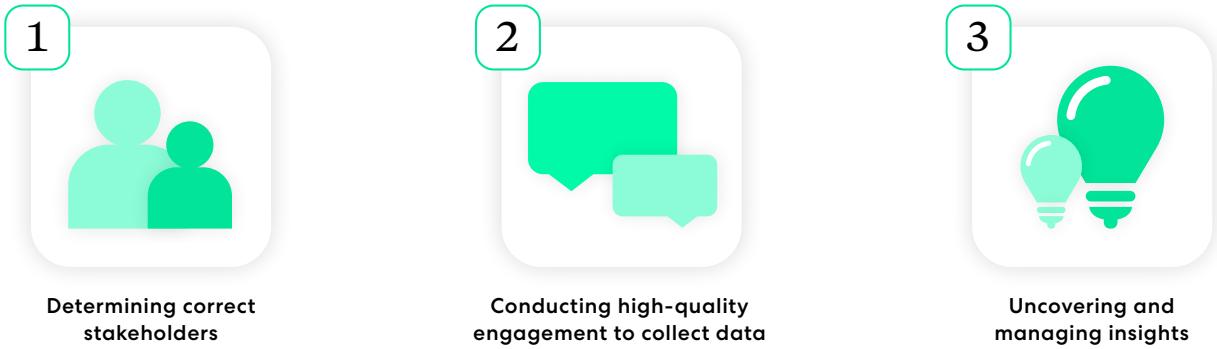


Medical affairs teams rely on insights to drive strategy and enable business decisions with far-reaching implications for their organizations, and for consumers who rely on life-changing treatments and devices. But the processes surrounding insight-gathering are varied, complex, and time-consuming.

At a very high level, this insights gathering process happens in three distinct stages:



Traditionally, these activities are distinct from one another, with different systems used to collect and store information spread across disparate teams or geographies. Insights might exist in different formats or languages, and methods of sharing may not be efficient or timely.

These disconnected systems create an insight gap, which can cause medical affairs organizations to miss out on important information that might more effectively steer their strategy. The insight gap problem is costly in terms of both time and money and has a significant impact on patients, too. With fewer than 10% of drugs in development making it to market from phase I clinical trials, and the average cost to successfully develop a single drug standing at more than $2 billion, it's fair to say that beneficial treatments could be developed faster and more economically.

Fortunately, technology companies have identified solutions for these challenges. Medical affairs organizations have an opportunity to fundamentally change their approach to insight gathering by using digital tools to rethink these formerly siloed activities as a single, strategic process that underpins insights management across the organization, all year long.

Let's discuss the basics of the four primary technologies that are disrupting insights management for medical affairs teams:

- Disambiguated, integrated HCP data
- Network analytics
- Asynchronous virtual engagement
- Life science-trained natural language processing and artificial intelligence

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DISAMBIGUATED, INTEGRATED HCP DATA

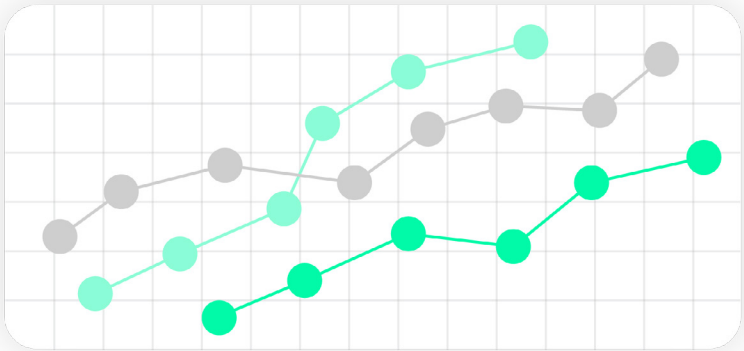
Typically, data about HCPs exists in four pillars that are not connected to each other:

- **Scientific:** Bibliometrics, speaking opportunities, congress/conference attendance
- **Transparency:** Which KOLs are working with which life science companies
- **Treatment:** Understanding referral and prescription patterns, comorbidities, the patient journey, or otherwise looking at treatment as a vehicle to understand physician practices
- **Social:** The more recent tendency for HCP and other expert dialogue around scientific advancement to take place online via popular social channels or other online forums

For most medical affairs teams, there is no practical way to understand how one HCP exists in all of these pillars. For example, Dr. Susan Scott might appear as Dr. S. Scott in the scientific and transparency pillars, Dr. Susan F. Scott in the treatment pillar, and DocScott on social media. With this much variation – and without a way for these four pillars to be consolidated – it's difficult to get a 360-degree view of Dr. Scott's true reach and influence.

However, recent innovations in disambiguated, integrated HCP data are removing these challenges and connecting the data together. Technology providers are solving this complex problem by pulling each pillar into a single system that knows Dr. Susan Scott is one person with a rich and varied sphere of influence.

Having this view empowers medical affairs organizations to make better decisions about engaging with key opinion leaders, and to be more strategic about how to use experts for different types of engagements.



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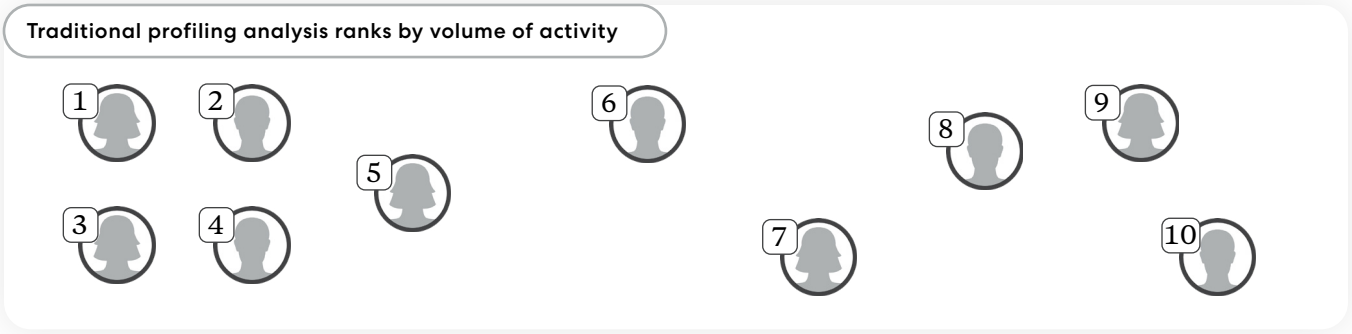
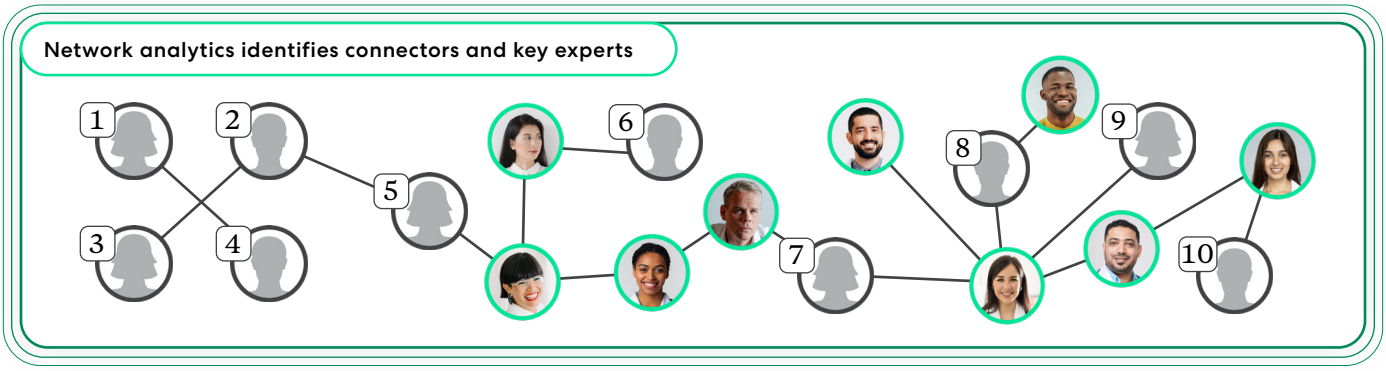
NETWORK ANALYTICS

The traditional way of looking at a disease community is to determine top experts by ranked volume of activity, typically in terms of publishing and speaking at conferences. Some medical affairs organizations make these determinations on their own, or with the help of organizations that specialize in profiling. This method reliably provides a list of which experts are loudest – in other words, who is publishing or speaking the most – but lacks any additional context.

Network analytics instead maps the strengths and volume of connections between HCPs. This technology looks at topics that matter to medical affairs teams and examines what's known as the invisible college – a network of like-minded peers and experts that aren't affiliated with any single organization or authority, and are motivated by the search for knowledge and scientific discovery.

These experts may not publish as frequently as their peers who appear on the traditional top ten lists of KOLs, but they are still decision-makers and influencers whose connections can have a tremendous impact on disease communities or topics that are important to medical affairs teams. Social media platforms have proven that information flows quickly through peer networks. Data analytics examines how scientific narrative traverses these peer networks, and which people occupy pivotal positions in the network, serving as connectors who can be a gateway to different geographies, patient populations, or other important audiences.





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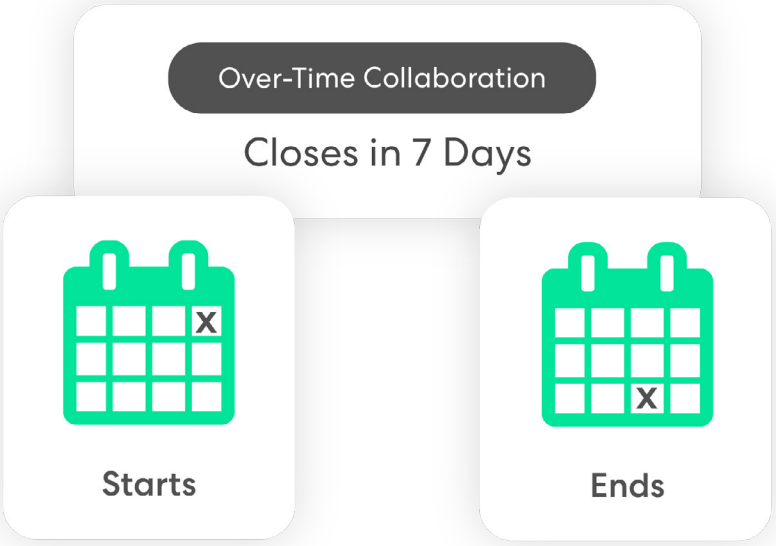
ASYNCHRONOUS VIRTUAL ENGAGEMENT

When the COVID-19 pandemic forced companies to use digital engagement, most organizations went directly to video conferencing or other same-time types of engagement. In this type of venue, there is a single universal time when every attendee must be present and engaged.

Drawbacks of this technology include the difficulty in inviting a global audience with widely varying schedules and availability, different preferred languages, and the tendency for people to multitask or lose focus. Digital fatigue caused by hours of focusing on a screen also contributed to diminishing returns in terms of meeting attendance and effectiveness.

Anytime, or asynchronous engagement, is similar to an online university format where a discussion is available to participants for a set period of time. Interaction takes place on a web-based platform over a period of days or weeks. Engaged moderators can keep the conversation moving, follow up when more information is needed, or encourage people to log in and participate before the session closes.

Busy physicians, in particular, might only have ten or fifteen minutes per day to log in and add input, but this flexibility contributes to increased focus and better participation overall. Using a flexible asynchronous platform for all types of engagements throughout the year also establishes a repeatable process that results in efficiency gains around planning and execution timelines.



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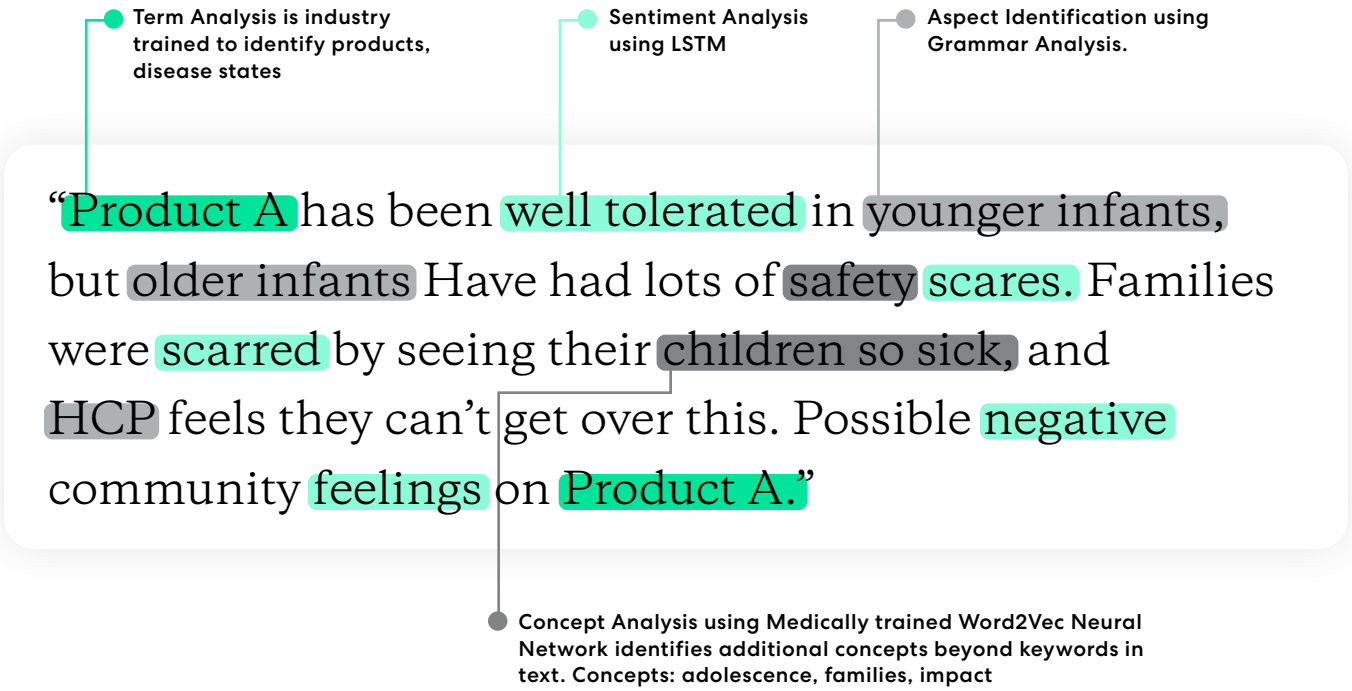
LIFE SCIENCE-TRAINED NATURAL LANGUAGE PROCESSING AND ARTIFICIAL INTELLIGENCE

Pharmaceutical and medical device organizations are heavily investing in artificial intelligence (AI) technology, with the global market for AI in pharma forecast to grow from $700m in 2020 to $2.9b in 2025 – a rate of nearly 33%. But what is this technology, and how can it be applied to insights management in medical affairs? At a high level:

- **AI** is a technology that is capable of performing tasks that typically require human intelligence. Readily recognizable examples include consumer-facing applications like Apple's Siri or Amazon's Alexa digital assistants.
- **Transparency: Machine learning (ML)** is an application of AI that gives systems the ability to learn and improve from experience without being explicitly programmed.
- **Deep learning (DL)** is a function of AI that imitates the workings of the human brain in processing data and creating patterns for use in decision making.
- **Natural language processing (NLP)** is a field of AI that gives machines the ability to read, understand and derive meaning from human languages.

NLP, a subset of DL, is useful in insight gathering because so many insights are collected in the form of quotes, comments, and thoughts that are generated in 1:1 meetings, at medical congress meetings, and in other settings. These interactions occur frequently, contain a great deal of content, and can be an important way to understand prevailing sentiment about an issue. However, collating and interpreting these insights can take weeks or months.

In a medical affairs context, NLP technology can be used to break apart the text of these interactions and identify meaningful concepts that can be tracked, flagged, grouped, or otherwise organized. When organizations have the ability to use this technology on a high volume of insights gathered from experts, they can more quickly identify trends and concepts that help drive strategy and enable faster, more accurate decision-making.



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CONCLUSION

Used effectively, insights are powerful – they can open new geographic markets, generate opportunities to use targeted messaging, strengthen relationships with KOLs and patients, accelerate product development and other project timelines, and even help identify up-and-coming experts in niche areas who may not circulate in the same publishing and conference circuits with more prominent opinion leaders. Medical affairs teams now have access to technological solutions that make these processes easier, or even fully automated – changing the game for how insights are gathered and acted on.

ABOUT WITHIN3

Within3 invented a better way for life science companies to get deeper insights and make faster decisions across the product development lifecycle. With the power to identify the right experts, effectively engage them, and quickly obtain actionable information, life science teams can close the insight gap and drive projects forward with confidence. Our insights management platform gives stakeholders the freedom to collaborate anytime, anywhere, on any device, plus practical tools to foster meaningful discussions, co-create and edit documentation, and rely on the power of AI to achieve faster and more accurate decision-making. With a dedicated client success team on every implementation, most Within3 projects achieve 100% stakeholder participation. To learn more and request a needs assessment and demo, visit www.within3.com.