

# Three “Generations” of INSIGHTS IMPLEMENTATION

**Within3** | **whitepaper**

A **Within3** & **MAPS** Collaboration

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## Three “Generations” of INSIGHTS IMPLEMENTATION

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This is the third White Paper in a series of collaborations between MAPS and Within3 that collects the expertise of Medical Affairs leaders to describe the process, promise, and perils of Insights Management. The first paper, titled [“The Value and Strategic Implementation of Insights Management,”](#) detailed the components and execution of a successful Insights Management program. The second paper [“Identifying and Addressing Pain Points in the Insights Management Process,”](#) offered advice for those not following the recommendations in the first paper. The current paper takes the next step, namely looking at how companies have implemented Insights Management in simple to mature ways, providing a vision for building the Insights Management process that best suits your organization.

To gain Insights into Insights, the authors conducted a series of polls and roundtables, the results of which are included in Appendix A, but which generally show an unsettled landscape that can be summarized as follows:

*No industry-wide standards exist, perceived challenges abound and, while a few companies feel as if they are doing Insights well, most are still cobbling together makeshift systems to keep Insights from grinding to a halt completely.*

One thing on which everyone agrees is the critical importance of Insights to Medical Affairs and to the business as a whole, which can be summarized as follows:

*If a business wants to change clinical behavior, they need to know the current clinical behavior and what is needed to change clinical behavior in line with new medicines. Insights generate this knowledge.*

Now the question becomes how to bridge the “unsettled landscape” and the “critical importance?” The answer can be seen in the evolution of the Insights process.

*If you think about any problem for which there isn't yet a widespread solution, you see early adopters out ahead, a middle part kicking the tires and experimenting, and folks not doing anything at all.*

Roundtable Participant

# The Spreadsheet Age

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## First-Generation Insights Management: The Spreadsheet Age

Evidence from South Africa’s Wonderwerk Cave shows that sometime around 1 million years ago, human ancestors rubbed sticks together to create fire. Similarly, in the late 1990s, early Homo technologus realized that learnings from the external healthcare community could be captured in a spreadsheet and reported back to the company.

And there were Insights.

As Medical Affairs learned to better harness this new and powerful knowledge, processes emerged: Medical Science Liaisons (MSLs) would type meeting notes; interesting snippets from these notes would be placed into the aforementioned spreadsheet; a manager would read through these “Insights”; and those that seemed interesting would float to the top of the primordial ooze of Insights data to become part of a PowerPoint that would be presented to company leaders.

Interestingly, our polling (see Appendix) showed that most organizations feel capable of generating Insights data from sources such as MSLs, Medical Information, and even social listening. Instead, analyzing data is now widely identified as the most labor-intensive part of the Insights Management process. And the analysis challenge grows along with the company.

Take an early-stage biotechnology company. With a small volume of data, it may work perfectly well to capture Insights via spreadsheet, analyze them via opinion, and communicate them via PowerPoint. But as volume or complexity increases, this system is quickly overwhelmed. As a larger company, or our hypothetical biotech company, grows, they risk becoming the proverbial frog in a pot of boiling water: They don’t notice their Insights Management process gradually becoming inadequate until they are parboiled.

Early warning signs of an inadequate spreadsheet-age Insights Management process include uncountable

hours spent harmonizing data from different sources – say, Insights data from Field Medical, Medical Information, Congresses, and Commercial. Or the recognition that Insights are siloed within the functions that originally generated the data. Or a Medical Director opening the Insights spreadsheet to find 1,743,567 rows of free-text inputs. Or the Insights team needing to hire a squadron of data entry specialists specifically to apply keywords and tags to these 1,743,567 rows of free-text inputs.

Even in the spreadsheet age, some of these challenges can be solved by a strategy-first approach to Insights Management. For example, Insights data may be grouped or “bucketed” into the categories defined by strategic listening priorities. (See the first paper in this series for detail.) And some statistical analyses are possible within spreadsheets, for example, to monitor the change of certain strategically important Insights over time.

This strategy-first approach also helps to ensure that analysis is meaningful. For example, reading through a spreadsheet of snippets from MSL engagements might identify topics that are interesting but lack strategic importance. As one roundtable participant said, “You know the doctor has a dog and know their birthday, but you don’t know what is meaningful to the organization or any actions that need to be taken.”

By taking a strategy-first approach, we not only create scaffolding on which to hang our raw data but also hint at how these data may be relevant to making actionable recommendations. One roundtable participant described delivering Insights without making actionable recommendations as, “Running 26 miles of a marathon and stopping 0.2 miles before the finish line.”

But, eventually even strategy won’t be able to save you from the hot water of Insights overload. In that case, you will need Second-Generation Insights processes.

*We grew and now are at the point we’re trying to organize an 800-row spreadsheet.*

Roundtable Participant

# The Age of Early Artificial Intelligence

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## Second-Generation Insights Management: The Age of Early Artificial Intelligence

Let's skip ahead a bit—from the taming of fire 1 million years ago to the first applications of Artificial Intelligence (AI) in Medical Affairs, circa 2016 or 2017. Second-Generation Insights Management uses AI to overlay spreadsheets with dashboards, almost as if you were squinting through a pair of kaleidoscopic glasses to visualize the information from a database or Large Language Model (LLM) in various ways.

Most Medical Affairs departments exist somewhere in this broad age of early AI, defined by the dashboard-like tools an organization has developed or licensed. For example, various dashboards may be equipped with degrees of Natural Language Processing, allowing them to run basic interpretations of (LLMs) for things like sentiment or knowledge gaps. Likewise, early AI models vary in how much effort is required to tell the system what your data mean, such as by applying tags and keywords. In the early AI age of Insights Management, there is often a tradeoff

such that simple, user-friendly dashboards tend to be inflexible and under-featured, while more powerful dashboards are often Machiavellian and complex. And you may still have people analyzing the outputs of these dashboards to find Insights... along with taking screenshots from the dashboard to use in PowerPoint presentations.

In other words, while organizations in the spreadsheet age may struggle with the brute force of analysis, organizations in the age of early AI are more likely to struggle in interpreting what the data mean. Even with basic AI, creating this meaning remains a labor- and resource-intensive process—so much so that many organizations may only be able to create a few reports per year, with the risk of information being outdated or incomplete by the time it's communicated. As one roundtable participant stated, "We'll bring Insights to our partners and they'll say, well I wish we'd known that 6 months ago." In another analogy, hindsight is often 20/20; streamlining the Insights process seeks to create the same acuity in foresight. And that may require Third-Generation Insights Management.

*The data analysis is easy, but then you have to think about it.*

Roundtable Participant



# The Age of Generative AI

## Third-Generation Insights Management: The Age of Generative AI

In earlier generations of Insights Management, specialists were required to direct AI tools to probe data for Insights relevant to strategy—often interacting with data in ways that were both technical and time-consuming. With GenAI, the technology understands strategy and Medical Affairs professionals can interact with data using human language. As one roundtable participant said, “I’m a medically trained person with a thesis about how my therapy can save lives, and I need a tool that helps me do that. That’s ultimately what these tools should try to do.”

Many uses of GenAI in the pharmaceutical industry remain aspirational. Is GenAI ready to replace 400 medical writers? Is it poised to discover the next treatment? Though both are promising GenAI is not there yet. But Insights Management is one of the first examples where GenAI tools are already affecting a large process in a meaningful way. GenAI can harmonize data from many sources without needing to apply tags or keywords, be they external sources such as social media or congress material or internal sources such as Medical Information queries and Commercial interactions. Then a Medical Affairs professional can simply ask it, “Do healthcare professionals in the Eastern United States understand our treatment’s 10% increase in efficacy?”

However, challenges remain, for example, the mistake many organizations make of considering GenAI a monolithic or single-purpose technology. Many companies speak of implementing GenAI as if the term describes one tool—as if a company could “implement GenAI” or “not implement GenAI” without considering the specific uses and nuances that are required to support strategies or initiatives. It’s a bit like an iPhone: The power of the iPhone does not necessarily come from the phone itself, but from the apps that are installed on the phone, each of which has a specific purpose. Drug discovery, summarizing vast amounts of information, and generating content in different languages are all distinct challenges that require different uses of AI.

*People talk about generative AI generally—about accuracy and hallucinations, generally. If you’re trying to solve something with GenAI, it’s important to have the problem domain in mind.*

Roundtable Participant

This is one reason many companies have not yet implemented Third-Generation Insights Management: The approach of using ChatGPT to know everything about everything can be like trying to turn a watchscrew with a sledgehammer. And beyond the well-known platforms, many Medical Affairs leaders don’t have enough experience or knowledge to be confident in choosing the right tool. Another reason companies may remain stuck in the earlier ages of Insights is that technology is developing too fast to keep pace: By the time a company builds a GenAI-powered Insights platform, it will be outdated. “Even something you started doing 2 years ago is already obsolete,” said one roundtable participant.

Companies are addressing this challenge either by licensing ready-made solutions or by implementing a model based on quick proof-of-concept, followed by rapid prototyping, then, “The thing comes out, you try it, and maybe you throw it out or keep it,” one participant said. In this model, innovation is decentralized, with many possible solutions growing quickly from small groups, which can then be iterated as technology evolves.

*If the tech is changing faster than your ability to develop, then developing makes no sense.*

Roundtable Participant

# Conclusion

We have seen the basics of Insights Management (White Paper 1). We have seen ways to troubleshoot sticking points in this process (White Paper 2). Now we hope you see a fairly linear progression of Insights Management, from the basic spreadsheet, through various AI-enabled dashboards, to the use of GenAI to interact with data using human language through the lens of Medical Affairs

strategy. The purpose of this vision is to help you choose from along this spectrum the approach that best fits your organization—and to see options for evolving your approach as your organizations' needs change. The spreadsheet may be fine for now. But when that is no longer the case, it may be time to move forward a generation or two in how your company manages Insights.

<https://medicalaffairs.org/value-and-strategic-implementation-of-insights-management/>  
<https://medicalaffairs.org/insights-pain-points/>

### Insight Polls

**Medical Affairs Professional Society (MAPS)**  
28,700 followers  
1w · 🌐

We're running a series of polls with [Within3](#) - let us know what you think!

**What is the most labor-intensive part of creating insight reports to share with leadership/other internal stakeholders?**

You can see how people vote. [Learn more](#)

Analyzing lots of data	64%
Gaining approvals	20%
Making recommendations	16%

181 votes · Poll closed

4 reposts

**Medical Affairs Professional Society (MAPS)**  
28,954 followers  
1w · 🌐

Knowledge is power ✨ Question 3 in our poll series with [Within3](#)

**How often do you/your team create insight/observation reports to share with leadership/internal stakeholders?**

You can see how people vote. [Learn more](#)

2x per year	14%
4x per year	37%
More than 4x per year	49%

84 votes · Poll closed

1 repost

**Medical Affairs Professional Society (MAPS)**  
29,225 followers  
1w · 🌐

Make your voice heard 🗣️ The final question in our poll series with [Within3](#)

**When you complete the analysis of data/insights gathered by your team, how often is it too late to take action based on that information?**

You can see how people vote. [Learn more](#)

Frequently	26%
Sometimes	44%
Rarely	18%
Never	12%

77 votes · Poll closed

2 reposts

**Medical Affairs Professional Society (MAPS)**  
29,079 followers  
1w · 🌐

Which is your big challenge? Question 4 in our question series with [Within3](#)

**When it comes to a completed report-out of insights, which of these is your biggest challenge?**

You can see how people vote. [Learn more](#)

Quality of insights	42%
Possibility of bias	24%
Timeliness	17%
Sharing results x-functionally	17%

78 votes · Poll closed

3 reposts

1 repost





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