



How to Make Medical Technology Articles come Alive By Using AI to Simulate a Mind Genomics study

Dipak Paul¹, Sharon Wingert², David Stevens³, Daniel Moskowitz¹, Brown Fitterman⁴, Howard Moskowitz^{1 2 *}

¹Mind Genomics Associates Inc., White Plains, New York, USA

²Tactical Data Group, Stafford, Virginia, USA

³Advanced Learning Strategies, Silver Lake, New Hampshire, USA

⁴TikunTek, Atlanta, Georgia, USA

Corresponding Author: Howard Moskowitz, Mind Genomics Associates Inc., White Plains, New York, USA

Received: January 20, 2026; **Published:** February 28, 2026

Abstract

Objective: Popular medical articles often describe emerging technologies in abstract, feature-driven terms that fail to engage readers personally. This communication gap may contribute to skepticism and slow adoption of innovations such as Remote Patient Monitoring (RPM). The objective of this conceptual study is to present a novel communication framework that integrates Mind Genomics and Artificial Intelligence (AI) to transform technical descriptions into more relatable, human-centered narratives.

Materials and Methods: The study follows the structural logic of the Mind Genomics experimental design, which organizes complex topics into structured combinations of questions and message elements. An AI-driven simulation was used to model potential response combinations related to RPM, generating 256 possible patterns across trust, data sharing, and perceived health outcomes. Following the regression-based segmentation principles of Mind Genomics, the simulation grouped response patterns into psychologically coherent mind-sets. The present work represents a conceptual, AI-simulated application of the methodology rather than a live participant experiment.

Results: Three distinct mind-sets emerged from the AI simulation: Tech Enthusiasts, who express strong acceptance and trust; Cautious Explorers, who seek reassurance and evidence; and Skeptics, who express concern regarding privacy, accuracy, and loss of human interaction. To enhance intuitive understanding, these segments were further illustrated through a “Fly on the Wall” conversational rendering. A sixteen-pattern response mapping model was also developed to translate segmentation into an accessible reader-participation framework.

Discussion: The findings suggest that attitudes toward medical innovation cluster into identifiable psychological orientations rather than forming a uniform response. By applying AI to simulate Mind Genomics segmentation, this approach demonstrates a scalable strategy for anticipating barriers and facilitators of technology communication.

Conclusion: Integrating Mind Genomics with AI offers a structured method for bridging clinical science and human experience. Even in simulated form, this framework provides a practical model for designing medical technology narratives that are psychologically informed, relatable, and potentially more effective in supporting informed adoption.

Keywords: Mind Genomics; Artificial Intelligence; Remote Patient Monitoring; Patient-Centered Communication; Psychological Segmentation; Technology Adoption.

Abbreviations

AI – Artificial Intelligence

RPM – Remote Patient Monitoring

MG – Mind Genomics



1. Introduction

Popular medical articles often explain how new technologies work but fail to engage readers personally. They focus on describing the technology's features and functions, yet rarely invite readers to reflect on what these innovations mean for them. Readers want to know, "What does this mean for me?" but are left with dry explanations that do not connect to their feelings or experiences. This disconnect makes it harder for readers to understand, trust, or embrace new medical technologies [1].

A central challenge in contemporary medical communication is that technology is frequently described in abstract, feature-driven terms, focusing on how it works rather than how it impacts people's lives. As a result, articles often miss the opportunity to make new tools relatable and meaningful to individual readers [2]. Without personal engagement, readers may feel overwhelmed or skeptical, reducing the likelihood of adoption [3].

This paper proposes a new approach that combines Mind Genomics thinking with AI to bring technology alive. By exploring how different people think and feel about medical innovations, we can create articles that resonate personally with readers. Our approach uses Mind Genomics to study how people respond to combinations of messages about technology [4]. AI simulates these studies and generates distinct mind-sets, representing different ways people relate to new tools. This methodology provides a structured framework for understanding human-centric responses to innovation [5].

By revealing these mind-sets and their feelings, we make the technology vivid and relevant. This approach aligns with emerging perspectives on AI-driven personalization, which emphasize making technology more responsive to individual needs [6]. In doing so, it transforms dry, technical articles into engaging, personal experiences that invite readers to see themselves in the story, reflecting broader discussions on integrating human-centric insights into AI systems [7]. It helps readers understand not just how technology works, but what it means to them individually.

2. Materials and Methods

2.1 Mind Genomics Framework

Mind Genomics is a rigorous scientific method designed to understand how people think and feel about everyday ideas and experiences. Instead of guessing or relying on anecdotal evidence, Mind Genomics uses carefully constructed experiments in which participants read combinations of short messages, called vignettes, that describe different aspects of a topic. Each vignette combines several elements, allowing researchers to observe how different messages interact and influence responses. This approach captures the complexity of real-world thinking by studying how people react to multiple ideas simultaneously, rather than to isolated statements [4,5].

In a typical Mind Genomics experiment, participants are presented with a series of vignettes, each containing a unique combination of messages. They rate their reactions to each vignette, such as how much they like it, trust it, or feel engaged. These responses are analyzed using regression techniques to determine which individual messages or combinations drive the overall reaction. The analysis reveals the relative importance of each message element and how they work together to shape perception [4].

One of the key strengths of Mind Genomics is its ability to classify individuals into distinct mind-sets based on response patterns. These mind-sets represent structured ways in which people interpret and

evaluate everyday situations. Because combinations are randomized and analysis focuses on patterns rather than isolated answers, the method is robust and resistant to superficial response bias [4,5].

2.2 Study Design: AI-Simulated Application

The Mind Genomics process begins with a clear description of the situation under study. From this foundation, four carefully crafted questions are developed to clarify different aspects of the situation. Each question is designed to stimulate reflective thinking rather than simple binary responses.

Each question contains four distinct answers, called elements, which are stand-alone sentences capable of conveying meaning independently. The framework therefore consists of four groups of four elements, yielding sixteen unique statements. These elements are combined into 24 structured vignettes, with each vignette containing two to four elements drawn from different questions [4].

Respondents evaluate these vignettes individually, typically using a simple response scale. Statistical modeling (regression analysis) is then used to determine how each element contributes to the overall response.

In the present paper, this structure was simulated using AI to model possible response combinations related to remote patient monitoring. Four key questions were developed:

How do you feel about using remote monitoring devices to track your health?

Do you trust AI to analyze your health data accurately?

Would you be comfortable sharing your health data with your doctor remotely?

Do you believe remote monitoring can improve your health outcomes?

Each question allowed four responses:

Yes, definitely

Maybe, with more information

No, I have concerns

I don't know

By combining responses across four questions ($4 \times 4 \times 4 \times 4$), 256 potential patterns were generated. From these simulated patterns, three coherent mind-sets emerged.

Although traditional Mind Genomics studies rely on live participant ratings of structured vignettes, the present work uses AI simulation to model potential response distributions across all possible combinations. The simplified four-question mapping presented in the Results section represents an applied translation of the underlying vignette-based structure into an accessible reader-facing format. Thus, the mind-set classification reflects the conceptual logic of Mind Genomics, while demonstrating how AI can efficiently simulate segmentation patterns.

3. Results

Based on the AI-simulated response combinations described in the Materials and Methods section, three distinct mind-sets emerged regarding remote patient monitoring. These mind-sets reflect different patterns of trust, perceived benefit, and comfort with AI-driven health technologies.

3.1 Tech Enthusiasts

Individuals in this group demonstrate strong acceptance and trust in AI and remote monitoring technologies. They view technology as

empowering, convenient, and capable of improving health outcomes. They express confidence in data analysis and believe innovation enhances proactive care.

3.2 Cautious Explorers

This group shows openness but seeks reassurance. They recognize potential benefits yet request stronger evidence, clearer privacy protections, and professional endorsement before fully committing.

3.3 Skeptics

Skeptics express concern about privacy, data security, technological failure, and loss of human interaction. They prefer traditional models of care and require substantial proof before accepting new systems.

3.4 Deepening Intuitive Understanding: “A Fly on the Wall” Simulation

To move beyond abstract categorization, the three identified mind-sets were rendered in a simulated conversational format. This “Fly on the Wall” approach allows the reader to observe how different psychological orientations respond to the same technology in real time.

Imagine the three mind-sets sitting around a table, sharing their thoughts on remote patient monitoring in a warm, realistic conversation. Each mind-set comments on what the others say, revealing their feelings and understandings about the product, costs, effectiveness, privacy, and trust.

Tech Enthusiast:

"I really appreciate how AI helps me stay proactive about my health without needing constant doctor visits."

Cautious Explorer:

"I get that, but I still worry about how my data is protected. Privacy is a big concern for me."

Skeptic:

"Honestly, I don't trust AI to analyze my health data accurately. It feels risky to rely on technology for something so important."

Tech Enthusiast:

"I understand the concerns, but the technology is backed by solid science and keeps improving. It's designed to catch problems early, which can save lives."

Cautious Explorer:

"Early detection sounds great, but I want to see clear evidence that it actually improves outcomes before fully trusting it."

Skeptic:

"Even if it works, I'm uncomfortable sharing my personal health data remotely. Who else might access it?"

Tech Enthusiast:

"Data sharing is secure with proper safeguards, and it makes healthcare more convenient and efficient. It can reduce costs and save time."

Cautious Explorer:

"Cost is definitely a factor. I want to know if the investment is worth it and if my healthcare provider supports it."

Skeptic:

"I prefer traditional, in-person care. Technology can fail or be hacked, and that worries me."

Tech Enthusiast:

"Technology isn't perfect, but it's improving rapidly. AI accuracy has come a long way, and it complements, not replaces, human judgment."

Cautious Explorer:

"That balance is important. I want to try new tech but with clear support and oversight from my doctor."

Skeptic:

"I'm skeptical about the hype. I need more proof before considering this technology for myself."

Tech Enthusiast:

"I'm excited about future innovations building on this foundation. It's a new era for personalized health."

Cautious Explorer:

"I'm hopeful too, but I'll stay cautious until I see consistent results and privacy protections."

Skeptic:

"I'm concerned about losing control over my personal health information and the risks involved."

Tech Enthusiast:

"With transparency and strong safeguards, we can build trust and make this technology work for everyone."

Cautious Explorer:

"That's the key—transparency and trust. Without those, adoption will be slow."

Skeptic:

"Until then, I'll stick with what I know works—traditional care."

Tech Enthusiast:

"Change is always challenging, but embracing innovation can lead to better health outcomes for all of us."

Cautious Explorer:

"I agree, but it has to be done thoughtfully and with respect for patient concerns."

Skeptic:

"I hope that happens. For now, I'll watch and wait."

This conversational rendering illustrates the emotional and cognitive diversity underlying technology adoption. Rather than presenting statistical segmentation alone, the dialogue demonstrates how attitudes toward privacy, trust, personalization, and evidence shape acceptance.

3.5 Reader Participation Model

To translate the conceptual segmentation into an applied tool, a simplified four-question response model was developed. Readers answer each question using Yes (Y) or No (N). The combination of responses maps onto one of sixteen response patterns, which correspond to the three broader mind-set categories. Table 1 displays the complete mapping of the sixteen response patterns to their assigned mind-set categories, along with their interpretative descriptions.

Please read the following four questions carefully and answer each with "Y" for Yes or "N" for No:

1. Do you feel comfortable using remote monitoring devices to track your health?
2. Do you trust AI to analyze your health data accurately?
3. Would you be comfortable sharing your health data with your doctor remotely?
4. Do you believe remote monitoring can improve your health outcomes?

Pattern #	Q1	Q2	Q3	Q4	Assigned Mind-Set	Interpretation
1	Y	Y	Y	Y	Tech Enthusiast	Strong acceptance and trust in technology and AI, optimistic about benefits.
2	Y	Y	Y	N	Cautious Explorer	Generally positive but skeptical about effectiveness.
3	Y	Y	N	Y	Cautious Explorer	Open but hesitant about data sharing.
4	Y	Y	N	N	Skeptic	Accepts technology but doubts benefits and data sharing.
5	Y	N	Y	Y	Cautious Explorer	Trust issues with AI but willing to use technology.
6	Y	N	Y	N	Skeptic	Concerned about AI and effectiveness.
7	Y	N	N	Y	Skeptic	Hesitant about AI and data sharing but hopeful.
8	Y	N	N	N	Skeptic	Generally doubtful and cautious.
9	N	Y	Y	Y	Cautious Explorer	Distrust in technology use but trusts AI and benefits.
10	N	Y	Y	N	Skeptic	Mixed feelings, leaning skeptical.
11	N	Y	N	Y	Skeptic	Distrustful and hesitant.
12	N	Y	N	N	Skeptic	Strong skepticism.
13	N	N	Y	Y	Skeptic	Distrustful but willing to share data.
14	N	N	Y	N	Skeptic	Doubtful and cautious.
15	N	N	N	Y	Skeptic	Skeptical but hopeful.
16	N	N	N	N	Skeptic	Strongly skeptical and resistant.

Table 1: Mapping of Response Patterns to Identified Mind-Sets in the AI-Simulated Mind Genomics Model

4. Discussion

Although the present study is conceptual and AI-simulated, it reflects the structural logic of established Mind Genomics methodology. The results of the AI-simulated Mind Genomics structure demonstrate that

attitudes toward remote patient monitoring are not uniform, but instead cluster into three psychologically distinct mind-sets: Tech Enthusiasts, Cautious Explorers, and Skeptics. These segments differ primarily in levels of trust, perceived benefit, and comfort with AI-driven health technologies.

This paper presents a novel approach to making medical technology articles come alive by combining Mind Genomics with AI. While the study focuses on remote patient monitoring as an illustrative case, the broader contribution lies in demonstrating how technology communication can move beyond purely clinical description. The integration of AI and Mind Genomics introduces a structured human dimension into the discussion of medical innovation.

By scientifically uncovering distinct mind-sets, the approach reveals how people emotionally and cognitively relate to technology, beyond clinical data alone. Rather than assuming a single audience response, the segmentation highlights meaningful diversity in perception, which has implications for communication, design, and adoption strategies.

The benefits of this approach are multifaceted. First, it transforms dry, technical content into engaging narratives that resonate personally with readers. Second, it provides a rigorous, experimental method to understand diverse perspectives, avoiding guesswork. Third, it helps identify barriers and facilitators to technology adoption, guiding better communication and design. Fourth, AI simulations enable scalable, efficient generation of mind-set insights, accelerating research and application. Finally, this method fosters empathy and trust by making technology relatable and meaningful to individuals.

5. Conclusion

By bridging clinical science with human experience, Mind Genomics and AI together offer a powerful tool for advancing medical technology communication and adoption. The AI-simulated segmentation presented here illustrates how structured message combinations can reveal psychologically coherent mind-sets, providing a practical framework for translating complex innovation into personally meaningful narratives.

This approach can be extended beyond remote patient monitoring to other domains where understanding diverse human perspectives is essential. As healthcare technologies continue to evolve, integrating human-centric segmentation into communication strategies may play a critical role in improving trust, engagement, and responsible adoption.

6. Conflicts of Interest

The authors declare no conflicts of interest.

References

1. Kelly, C.J., Karthikesalingam, A., Suleyman, M., Corrado, G. and King, D (2019). Key challenges for delivering clinical impact with artificial intelligence. *npj Digit. Med.* 2: 162.
2. Street, R.L., Makoul, G., Arora, N.K. and Epstein, R.M (2009). How does communication heal? Pathways linking clinician-patient communication to health outcomes. *Patient Educ. Couns.* 74: 295-301.
3. Kruse, C.S., Krowski, N., Rodriguez, B., Tran, L., Hyde, J., Zhou, Y. et al (2017). Telehealth and patient satisfaction: a systematic review and narrative analysis. *BMJ Open.* 7: e016242.

4. Moskowitz, H.R (2012). 'Mind Genomics': The experimental, inductive science of the ordinary. *J. Sens. Stud.* 27: 347-374.
5. Moskowitz, H.R (2024). Mind Genomics: Methodology and experimental design. Mind Genomics Institute.
6. Topol, E.J (2019). High-performance medicine: the convergence of human and artificial intelligence. *Nat. Med.* 25: 44-56.
7. Chen, J.H. and Asch, S.M (2017). Machine Learning and Health Systems: The Importance of a Human-In-The-Loop. *J. Gen. Intern. Med.* 32: 1233-1241.