



Simulating and Stimulating Critical Thinking Using Mind Genomics Turbocharged with AI: Looking Back from the Year 2030 at the Personal Microbiome and the “Food Mind”

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Abstract

This paper presents the combination of AI and Mind Genomics thinking to demonstrate how one may learn to think critically about a topic. The topic here is the personal microbiome and the “food mind.” All the information is generated by simple prompts in the Mind Genomics platform, BimiLeap.com. The process begins with an introductory, two-part tutorial. The first part comprises a short history of today’s work as if being written in the future. The second part comprises 15 AI-generated questions and answers about the personal microbiome and the food mind. The process continues with a simulation of a meeting about the food microbiome, and different positions of people. The remainder of the paper shows how to think critically, beginning with identifying key ideas, themes, perspectives. The paper moves to show how to understand the points of view of those who accept vs. reject aspects regarding the food microbiome. The paper finishes with a detailed analysis of four possible innovations. The approach is significant because the same types of tutorial information can be developed in minutes for topics dealing with the way ordinary people think. The contribution of the paper is the standardization of AI inputs and outputs to create a tool to enhance topic-specific critical thinking.

Keywords: AI-Generated Insights; Critical Thinking; Mind Genomics; Personal Microbiome; Personalized Nutrition; Perspective Analysis

Abbreviations

AI: Artificial Intelligence; ChatGPT: Chat Generative Pre-trained Transformer

Introduction

The idea of introducing a topic very much alive as if one were writing a history of in sometime in the future comes from the pioneering British author, Edward Bellamy, and his novel of the industrial revolution, Looking Backward. By writing a history from the point of view of the year 2030, a century and a quarter into the

future, Bellamy brought the pace of science to life. And, undoubtedly stimulated critical thinking. We begin our efforts to systematize and “template” the acquisition of critical thinking in the same way, with homage to the inspiration from Mr. Edward Bellamy, visionary supreme. Table 1 presents a bit of this “history.”

As we reflect on the value of studying the food microbiome in the year 2030, it is evident that this field has revolutionized the way we approach food safety and nutrition. In the early 21st century, researchers began to uncover the significance of the trillions of

microorganisms residing in our digestive systems and their impact on our overall health. Through the exploration of the food microbiome, researchers gained insights into the interactions between microorganisms and the food we eat, shaping our digestion and overall health.

Viewing the study of the food microbiome as a historical journey allows us to draw valuable lessons from previous research and advancements. Examining the breakthroughs and obstacles en-

countered by researchers in the past allows us to expand on their discoveries and deepen our comprehension of the complex connection between food and the microbiome.

Examining our current efforts in the context of history reveals opportunities for enhancement and highlights new insights that can serve the greater good of society. The exploration of the food microbiome could transform our understanding of food production, safety, and consumption, paving the way for healthier and more sustainable food systems [1-7].

In a world where the keys to optimal health and nutrition are within reach, a team of scientists embarked on a groundbreaking journey to unlock the secrets hidden within the human genome and microbiome. Armed with cutting-edge technology and a passion for personalized wellness, they set out to create a new era of nutrition tailored to everyone’s unique genetic makeup.

As they delved deeper into the mysteries of human biology, they discovered a complex web of interactions between our genes, our gut bacteria, and the foods we consume. The team began to unravel the connections between certain genetic markers and specific dietary requirements, uncovering a wealth of information that could revolutionize the way we eat and nourish our bodies.

With each new discovery, they honed their tools even further, developing algorithms and software that could analyze vast amounts of genetic and microbiome data in a matter of seconds. They pinpointed key nutrients that each person needed in order to thrive, creating personalized nutrition plans that could optimize health and wellness in ways never before imagined.

As the team continued to push the boundaries of science and technology, they encountered skeptics and naysayers who doubted the validity of their methods. But through rigorous testing and validation studies, they were able to demonstrate the effectiveness of their approach, showing real-world results that spoke for themselves.

Ultimately, they realized that the future of nutrition was not a one-size-fits-all approach, but a nuanced and personalized journey that could unlock the full potential of every individual. And as they shared their findings with the world, they sparked a revolution in how we think about food and health, paving the way for a new era of personalized nutrition that could change lives for the better.

In the end, the team’s dedication to the pursuit of knowledge and innovation had led them to a pivotal moment in history, where science and technology converged to unlock the secrets of personalized nutrition and pave the way for a healthier, more vibrant future for us all.

Table 1: Looking at the topic as if one were in the future writing about the topic as if it happened in the past and is now part of history.

Phase 2: The 15 Question and Answer Tutorial About the Topic

To emphasize the importance of critical thinking, it is valuable to start an article on this topic with a short tutorial that includes a series of questions and answers generated by AI. These questions can serve as a starting point to engage the reader (see Table 2) [8-11].

Phase 3: The Fly on the Wall Strategy to Overhear Conversations and Know Thoughts

Taking on the role of a “fly on the wall” offers a distinct vantage point, enabling you to witness the flow of conversations as individuals share their thoughts and opinions. By grasping both the

spoken words and the underlying beliefs of individuals, one can cultivate critical thinking skills while examining the diverse perspectives offered. This method reveals the motivations and biases of the participants, fostering a richer comprehension of the subject matter.

Listening to conversations among diverse individuals offers a rich understanding of the topic through various viewpoints. Encountering a variety of perspectives can confront established ideas and inspire individuals to reflect deeply on their own convictions. Spotting the gaps between spoken words and genuine beliefs enhances our capacity to critically question and analyze information.

Furthermore, this approach emphasizes the importance of considering the credibility and intentions of the individuals involved in the conversation. Understanding the background and biases of individuals allows for a more precise evaluation of the information they present. As individuals develop critical thinking skills, they learn to distinguish between fact and opinion, enabling them to make informed decisions and reach logical conclusions.

As seen in Table 3, the “fly on the wall” approach invites individuals to engage in discussions with openness and a readiness to explore diverse viewpoints. Engaging in discussions on a topic from multiple perspectives sharpens critical thinking skills, enabling individuals to analyze information with greater effectiveness and question their own beliefs. This approach fosters a deeper understanding of complex issues and promotes the development of well-rounded, informed opinions [12-14].

The remainder of this paper provides AI-generated “insights” and “suggestions” develop after the initial study was closed. The Mind Genomics platform, BimiLeap.com, stores the material just created and presented, as well as other material not shown. This AI-generated material is subject to AI-based critical thinking. The output, as seen in Table 4, of that critical thinking is now presented ranging from key ideas, themes, perspectives, to different responses (acceptors vs. opposers), and finally to innovation.

Phase 4: Critical Thinking-Key Ideas, Themes, Perspectives

Recognizing key ideas enhances understanding and leads to more informed decisions. By pinpointing and examining essential concepts in the field, individuals can link various pieces of information and derive conclusions grounded in evidence and reason.

Furthermore, identifying recurring themes in the food microbiome enables individuals to observe patterns and trends as they evolve over time. Observing the recurring patterns of specific ideas or behaviors enables individuals to forecast outcomes and foresee possible challenges. This foresight is essential for critical thinking, enabling individuals to plan and solve problems with greater effectiveness.

Additionally, exploring various viewpoints within the food microbiome can enhance critical thinking skills. Examining an issue from various perspectives allows individuals to explore a broader spectrum of information and viewpoints. This approach prevents bias and tunnel vision, fostering a deeper and more nuanced grasp of intricate subjects.

As individuals deepen their understanding of key ideas, recurrent themes, and perspectives within the food microbiome, their critical thinking abilities continue to evolve. They grow skilled at assessing information, linking ideas, and forming significant conclusions. This refined critical thinking ability empowers individuals to tackle challenges with increased confidence and creativity, resulting in more effective and innovative solutions [15-18].

Phase 5: Critical Thinking Manifesting by Searching for What is Missing from the Initial Effort

Identifying what is missing in a topic is a crucial aspect of becoming a critical thinker. It allows for a nuanced analysis of information, allowing for a more comprehensive understanding of the subject matter. This not only enhances knowledge but also contributes effectively to discussions and debates. It also helps avoid confirmation bias by challenging existing beliefs and adopting an open-minded approach. Table 5 shows what AI found to be missing in its review, and how AI “filled in” when requested [19-21].

<p>INSTRUCTIONS GIVEN TO THE AI</p> <p>It is 2030. A lot has happened. Here is one major advance.</p> <p>Personalized nutrition: trend towards diets focused on genetic and microbiome analysis, with an emphasis on technology to identify nutritionally perfect foods.</p> <p>I am a fly on the wall. I am listening to a big meeting of nutritionists, drug company, the FDA (food and drug administration), along with members of consumer advocate groups, as well as members of the commercial farms., university specialists. They are talking about personalized nutrition.</p> <p>Make sure you get 15 people with radically different opinions talking. For each person who talks, provide the following:</p> <p>Who is the speaker? Preface by SPEAKER:</p> <p>What does the speaker think about what they will communicate? What do they hope to achieve? Preface by PRIVATE THOUGHT:</p> <p>What do they say in public? Make it 3 sentences. Preface by WHAT DID THEY SAY?</p> <p>What did other people in the audience think was really being communicated by the speaker? Preface by WHAT IS THE COMMUNICATOR REALLY TRYING TO TELL ME?</p> <p>How would the food policy change? Preface by EFFECT ON CURRENT FOOD POLICY:</p> <p>HERE IS THE OUTPUT FROM AI SIMULATING THE MEETING</p> <p>SPEAKER: Nutritionist Dr. Smith from a research university.</p> <p>PRIVATE THOUGHT: Dr. Smith believes that personalized nutrition based on genetic and microbiome analysis is the future of dietary health and hopes to persuade the audience to support funding for research in this area.</p> <p>WHAT DID THEY SAY? “I strongly believe that personalized nutrition tailored to an individual’s genetic makeup and microbiome can revolutionize the way we approach dietary health and should be a priority for future research and development.”</p> <p>WHAT IS THE COMMUNICATOR REALLY TRYING TO TELL ME? Other audience members perceived Dr. Smith as advocating for a shift towards a more individualized approach to nutrition and a potential overhaul of current dietary guidelines.</p> <p>EFFECT ON CURRENT FOOD POLICY: Dr. Smith’s advocacy for personalized nutrition could potentially lead to the implementation of new regulations and guidelines that prioritize personalized dietary recommendations based on genetic and microbiome analysis.</p> <p>SPEAKER: Representative from a large commercial farm company.</p> <p>PRIVATE THOUGHT: The commercial farm representative believes that personalized nutrition could potentially affect their operations and wishes to ensure their interests are taken into consideration in any policy changes.</p> <p>WHAT DID THEY SAY? “We must consider the implications of personalized nutrition on commercial agriculture and ensure that any policy changes support the sustainability and profitability of commercial farming operations.”</p> <p>WHAT IS THE COMMUNICATOR REALLY TRYING TO TELL ME? Other audience members perceived the commercial farm representative as advocating for policies that protect the interests of large-scale agricultural operations in the face of potential changes in dietary trends.</p> <p>EFFECT ON CURRENT FOOD POLICY: The commercial farm representative’s concerns could influence food policy to consider the impact of personalized nutrition on agricultural practices and ensure that the interests of commercial farm companies are protected in any policy changes.</p> <p>SPEAKER: Consumer advocate from a non-profit organization focused on nutrition.</p> <p>PRIVATE THOUGHT: The consumer advocate believes that personalized nutrition has the potential to empower individuals to make informed dietary choices and hopes to ensure that consumer interests are prioritized in any policy discussions.</p> <p>WHAT DID THEY SAY? “We must ensure that consumers have access to accurate information and resources to make informed decisions about their personal nutrition needs in the era of personalized diets.”</p> <p>WHAT IS THE COMMUNICATOR REALLY TRYING TO TELL ME? Other audience members perceived the consumer advocate as advocating for policies that prioritize consumer education and access to personalized nutrition resources to empower individuals in making dietary choices.</p> <p>EFFECT ON CURRENT FOOD POLICY: The consumer advocate’s advocacy for consumer empowerment in personalized nutrition could lead to new policies focused on improving access to information and resources for individuals to make informed dietary choices based on their genetic and microbiome analysis.</p> <p>WHAT IS THE COMMUNICATOR REALLY TRYING TO TELL ME? Other audience members perceived the consumer advocate as advocating for policies that prioritize consumer education and access to personalized nutrition resources to empower individuals in making dietary choices.</p> <p>EFFECT ON CURRENT FOOD POLICY: The consumer advocate’s advocacy for consumer empowerment in personalized nutrition could lead to new policies focused on improving access to information and resources for individuals to make informed dietary choices based on their genetic and microbiome analysis.</p>
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Table 3: “Fly on the wall” strategy-listening to a meeting on “personalized nutrition.”

<p>KEY IDEAS</p> <p>The importance of personalized nutrition based on genetic and microbiome analysis.</p> <p>The potential impact of personalized nutrition on food policy and agricultural practices.</p> <p>The need to prioritize consumer education and empowerment in making informed dietary choices.</p> <p>The role of different stakeholders, such as nutritionists, commercial farm representatives, and consumer advocates, in shaping food policy discussions around personalized nutrition.</p> <p>THEMES</p> <p>Personalized Nutrition:</p> <p>The importance of personalized nutrition based on genetic and microbiome analysis.</p> <p>Impact on Food Policy and Agricultural Practices:</p> <p>The potential impact of personalized nutrition on food policy and agricultural practices.</p> <p>Consumer Education and Empowerment:</p> <p>The need to prioritize consumer education and empowerment in making informed dietary choices.</p> <p>Role of Stakeholders:</p> <p>The role of different stakeholders, such as nutritionists, commercial farm representatives, and consumer advocates, in shaping food policy discussions around personalized nutrition.</p> <p>PERSPECTIVES</p> <p>Personalized Nutrition:</p> <p>Plus: Can potentially improve individual health outcomes and prevent chronic diseases.</p> <p>Minus: Cost and accessibility barriers may limit widespread adoption.</p> <p>Interesting: The integration of technology, like AI and wearable devices, to personalize nutrition plans.</p> <p>Impact on Food Policy and Agricultural Practices:</p> <p>Plus: Can drive a shift towards more sustainable and diverse agricultural practices.</p> <p>Minus: Could create challenges for large-scale food production and distribution systems.</p> <p>Interesting: The intersection of personalized nutrition with food sovereignty movements.</p> <p>Consumer Education and Empowerment:</p> <p>Plus: Empowers individuals to take control of their health and dietary choices.</p> <p>Minus: Misinformation and confusion in the market may lead to ineffective dietary decisions.</p> <p>Interesting: The role of social media and influencers in shaping consumer perceptions of personalized nutrition.</p> <p>Role of Stakeholders:</p> <p>Plus: Collaborative efforts from different stakeholders can lead to holistic and effective food policy changes.</p> <p>Minus: Conflicting interests among stakeholders may hinder progress towards implementing personalized nutrition strategies.</p> <p>Interesting: The potential for partnerships between public health organizations and private sector companies to promote personalized nutrition initiatives.</p>

Table 4: AI critically thinking about its own work, showing Key Ideas, Themes and Perspective.

<p>AI RETURNED WITH THIS INFORMATION</p> <p>Additional information that could complete the understanding of the topic includes:</p> <p>The potential benefits and challenges of personalized nutrition based on genetic and microbiome analysis.</p> <p>The current state of research and development in personalized nutrition.</p> <p>The potential implications of personalized nutrition on public health outcomes.</p> <p>The role of governmental agencies and policymakers in shaping food policy related to personalized nutrition.</p> <p>The perspectives of other stakeholders, such as healthcare professionals, food industry representatives, and policymakers, on personalized nutrition.</p> <p>IN A SEPARATE ITERATION, FOCUSING ON THE ABOVE MATERIAL, AI RETURNED WITH THE FOLLOWING MATERIAL AFTER INSTRUCTIONS TO WRITE AN ANSWER THAT A 12-YEAR-OLD STUDENT COULD EASILY UNDERSTAND</p> <p>What are the potential benefits and challenges of personalized nutrition based on genetic and microbiome analysis? Answer: Personalized nutrition uses information about your genes and microbiome to create a diet that’s tailored to your body’s specific needs. This can help improve your overall health and well-being by giving your body the nutrients it needs most. However, personalized nutrition can be complex and costly requiring specialized testing and analysis to properly customize a diet plan.</p> <p>What is the current state of research and development in personalized nutrition? Answer: Researchers are constantly studying how genetics and the microbiome impact our nutritional needs. They are developing new technologies and techniques to analyze this information and create personalized diet plans. As more data is collected and analyzed, the field of personalized nutrition continues to advance and improve.</p> <p>What are the potential implications of personalized nutrition for public health outcomes? Answer: Personalized nutrition has the potential to improve public health outcomes by promoting individualized dietary plans that can prevent chronic diseases and promote overall wellness. By tailoring diets to each person’s unique genetic and microbiome profile, personalized nutrition could help reduce the burden of lifestyle-related diseases on the healthcare system. However, access to personalized nutrition services may be limited by cost and availability, potentially exacerbating health disparities.</p> <p>What is the role of governmental agencies and policymakers in shaping food policy related to personalized nutrition? Answer: Governmental agencies and policymakers play a crucial role in regulating and promoting personalized nutrition practices. They can set standards for testing and certification of personalized nutrition products and services to ensure their safety and efficacy. Additionally, policymakers can advocate for policies that support research and development in the field of personalized nutrition and make these services more accessible to the general population.</p> <p>What are the perspectives of other stakeholders, such as healthcare professionals, food industry representatives, and policymakers, on personalized nutrition? Answer: Healthcare professionals may see personalized nutrition as a valuable tool for improving patient outcomes and promoting a more holistic approach to healthcare. Food industry representatives may view personalized nutrition as an opportunity to develop innovative products and services that cater to individual dietary needs. Policymakers may see personalized nutrition as a way to address public health challenges and reduce healthcare costs in the long run. Overall, these stakeholders play a key role in shaping the future of personalized nutrition and its impact on society.</p>
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Table 5: What is missing.

Phase 6: Dealing with Those of the Same Opinion, Opposite Opinion, and Divergent Opinion

Critical thinking involves examining issues from various perspectives to form well-rounded and informed opinions. Engaging with a diverse audience, including those with positive, negative, or completely different viewpoints, is crucial for fostering motivation and confidence in critical thinking. Positive audience members validate and support our ideas, boosting self-esteem and encouraging further exploration and development. Positive feedback from an audience serves as reinforcement, encouraging us to continue honing our critical thinking skills and engaging with new ideas and perspectives.

On the other hand, engaging with negative audience members forces us to defend and justify our beliefs, identifying weaknesses in our thinking and seeking more evidence and logic to support our claims. This process of defending and refining our ideas in the face of opposition can lead to a more robust framework of thought, ultimately enhancing our critical thinking skills [22-25].

Table 6 shows the points of view of interested audience, alternative viewpoints and opposite viewpoints, respectively.

<p>INTERESTED AUDIENCES</p> <p>Scientists and researchers in the fields of genetics, microbiology, and nutrition would be interested in the topic questions as they involve cutting-edge research on personalized nutrition and its implications for dietary health.</p> <p>Farmers and agricultural industry professionals would be interested in the topic questions as they pertain to potential changes in food policy that could impact commercial farming operations and agricultural practices.</p> <p>Consumer advocacy groups and individuals concerned about nutrition and wellness would be interested in the topic questions as they focus on empowering individuals to make informed decisions about their dietary health through personalized nutrition.</p> <p>Policy makers and government officials involved in food regulation and public health would be interested in the topic questions as they explore potential changes in food policy to accommodate personalized nutrition and its impact on dietary guidelines and regulations.</p> <p>ALTERNATIVE VIEWPOINTS</p> <p>Another speaker, such as a traditional nutritionist focused on general dietary guidelines, may believe that personalized nutrition is not necessary and that current dietary recommendations are sufficient for most individuals.</p> <p>A representative from a small-scale, organic farming company might argue that personalized nutrition could actually benefit smaller farms by promoting a more diverse and sustainable approach to agriculture that caters to individual health needs.</p> <p>A skeptic in the audience may think that the idea of personalized nutrition is simply a marketing ploy by companies to sell expensive genetic testing kits and specialized food products, rather than a genuine advancement in dietary health.</p> <p>OPPOSING AUDIENCES</p> <p>Large commercial farm companies: Large commercial farm companies might oppose the topic of personalized nutrition as it could potentially disrupt their current agricultural practices and require them to adapt to changes in consumer dietary preferences. It may also lead to increased scrutiny of the environmental impact of large-scale farming operations.</p> <p>Traditional dietitians and nutritionists: Traditional dietitians and nutritionists may oppose the topic of personalized nutrition as it challenges the one-size-fits-all approach to dietary recommendations that has been traditionally followed. They may be resistant to adopting new practices that require genetic and microbiome analysis to tailor dietary advice to individuals.</p> <p>Food industry lobbyists: Food industry lobbyists may oppose the topic of personalized nutrition as it could lead to shifts in consumer preferences away from mass-produced, processed foods towards more personalized whole foods. This could potentially impact the profit margins of food companies that rely heavily on standardized food products.</p> <p>Government regulatory agencies: Government regulatory agencies may oppose the topic of personalized nutrition due to concerns about the feasibility and regulatory challenges of implementing personalized dietary guidelines on a large scale. It may also require significant resources and infrastructure to support personalized nutrition initiatives, which could be a barrier for government agencies.</p>
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Table 6: Points of view of interested audience, alternative viewpoints and opposite viewpoints, respectively.

Phase 7: AI Deep-dives into Its Own Suggested Innovations

In a world that evolves at breakneck speeds, where information streams endlessly and new ideas surface rapidly, the role of AI in generating groundbreaking concepts for the human microbiome can become significant. AI has the potential to revolutionize healthcare, particularly in microbiology, by providing new insights and solutions that may escape human researchers. Harnessing AI opens new avenues for comprehending and influencing the microbiome, paving the way for enhanced human health.

In Table 7, AI’s generation of ideas for the human microbiome offers a fresh perspective, illuminating potential breakthroughs and discoveries. Delving into the ideas produced by AI enables us to assess their uniqueness, importance, societal advantages, and potential commercial opportunities. AI added additional ratings and rationales for those ratings. Those aspects that were rated but lack AI rationale are not shown. This analysis allows us to explore

the implications of AI-generated ideas from multiple angles, including their societal effects, market potential, and appeal to investors.

Moreover, utilizing AI to generate innovative ideas enhances our critical thinking skills. AI serves as a creative partner, providing new viewpoints and challenging our assumptions. Engaging with AI-generated ideas allows us to refine our analytical skills and enhance our strategic thinking capabilities.

AI acts as a partner, offering a wealth of insights and opportunities that elevate our decision-making processes. Seeing AI as a dependable ally allows us to benefit from the way it can address complex issues and discover new avenues for growth and development. The collaboration between AI and human intelligence can yield informed and innovative solutions to the challenges we encounter in microbiology and beyond [26-30].

Educational programs and workshops for consumers to learn about personalized nutrition and how to use data from genetic testing and microbiome analysis to make informed food choices.

SUGGESTION: By providing educational programs and workshops on personalized nutrition, consumers can gain a deeper understanding of how genetic testing and microbiome analysis can impact their dietary choices. This knowledge empowers individuals to make informed decisions about their food choices based on their unique genetic makeup and gut health. By understanding their specific nutritional needs, consumers can optimize their health and well-being, potentially reducing the risk of chronic diseases and improving overall quality of life. These programs can ultimately help individuals take charge of their health through personalized nutrition strategies.

EXPLANATION: I would rate this suggestion as an 8 on the scale of importance. Education about personalized nutrition and understanding genetic and microbiome data can greatly impact individuals’ ability to make informed food choices and improve their overall health and well-being. Providing workshops and programs for consumers to learn about these topics would empower them with the knowledge and tools needed to make positive changes to their diet and lifestyle.

IMPORTANCE: I would rate this suggestion as a 5. It will take some time to develop and implement educational programs and workshops for consumers, but the increasing interest in personalized nutrition and advancements in technology make it a feasible goal soon.

UNIQUENESS: I would rate this suggestion as a 6 on the uniqueness scale. While personalized nutrition and genetic testing are becoming more popular, educational programs specifically teaching consumers about how to utilize this information for making food choices may still be somewhat unique in the current market.

ATTRACTIVENESS: I would rate this suggestion as a 7 on the attractiveness scale to investors. Providing educational programs and workshops for consumers on personalized nutrition and genetic testing can be a lucrative opportunity for investors, as there is a growing interest in personalized health and wellness. Additionally, the potential for continued growth in the market for personalized nutrition services could make this suggestion appealing to investors looking for long-term opportunities in the health and wellness sector.

SOCIAL GOOD: I would rate the social “good” produced by this suggestion as very high. By providing educational programs and workshops for consumers to learn about personalized nutrition and how to use data from genetic testing and microbiome analysis, individuals can make more informed decisions about their food choices. This can lead to improved health outcomes, increased understanding of how diet impacts overall well-being, and potentially reduced healthcare costs in the long run. Overall, this suggestion has the potential to greatly benefit society as a whole by promoting healthier eating habits and empowering individuals to take control of their own health.

SLOGAN: 1. “Empowering You to Eat Smarter: Personalized Nutrition Education for All”, 2. “Unlock Your Genetic Blueprint: Transforming Health through Informed Food Choices”

INVESTMENT PITCH: Investing in educational programs and workshops for personalized nutrition offers a unique opportunity to tap into the growing demand for health and wellness solutions. With advancements in technology, consumers are increasingly seeking personalized approaches to nutrition based on their genetic and microbiome profiles. By providing valuable information and guidance through workshops and programs, consumers can gain a better understanding of how to make informed food choices that align with their individual needs. This investment not only satisfies a market need, but also positions the company as a leader in the personalized nutrition space. Additionally, by empowering consumers with knowledge and resources, there is potential for long-term customer loyalty and a positive impact on public health outcomes. Overall, investing in personalized nutrition education is a strategic move that not only benefits consumers, but also has the potential for significant returns in the rapidly growing health and wellness market.

INVESTMENT PUSHBACK: The investor may argue that educational programs and workshops could be expensive to develop and implement, cutting into potential profits. Additionally, they may feel that consumers may not see the value in personalized nutrition or genetic testing, leading to low participation rates and a lack of return on investment.

PUSHBACK ANSWER: The pushback towards personalized nutrition may stem from concerns about privacy, validity of genetic testing, and potential biases in interpretation of results. These concerns can be addressed by ensuring transparent and secure handling of personal data, utilizing evidence-based research to support recommendations, and providing clear education and guidance on how to interpret and apply the information. By fostering trust and understanding through education, communication, and evidence-based practices, consumers may be more inclined to invest in personalized nutrition programs and workshops to improve their health and well-being.

COMPROMISE: One compromise solution could be offering discounted or subsidized rates for genetic testing and microbiome analysis for individuals interested in participating in the educational programs and workshops. Additionally, providing incentives, such as discounts on personalized nutrition consultations or meal planning services, for those who complete the program and implement the recommended changes in their diet could further encourage investment in the idea. Collaborating with health insurance companies or employers to offer these programs as part of wellness initiatives or coverage could also make it more appealing and accessible to a wider audience. Ultimately, demonstrating the potential long-term health and financial benefits of personalized nutrition could help convince individuals to invest in this innovative approach to improving their diet and overall well-being.

Mobile apps that utilize AI algorithms to analyze user data (such as activity levels, dietary preferences, and health goals) and provide personalized nutrition advice, recipe suggestions, and shopping lists.

SUGGESTION: By utilizing AI algorithms to analyze user data and provide personalized nutrition advice, recipe suggestions, and shopping lists, these mobile apps can help individuals make more informed choices when it comes to their diet and health goals. This level of personalization allows users to receive tailored recommendations that are specific to their unique needs and preferences, leading to a more successful and sustainable approach to eating well. Additionally, by incorporating data on activity levels and dietary preferences, these apps can help users achieve a more balanced and healthier lifestyle. Overall, this personalized approach to nutrition has the potential to have a significant impact on individuals’ overall health and well-being.

EXPLANATION: I would rate this suggestion as a 9 on the importance scale. Personalized nutrition advice is crucial for individuals looking to improve their health and achieve their goals. By utilizing AI algorithms to analyze user data and provide tailored recommendations, these mobile apps can offer valuable assistance in making informed choices about food and nutrition. This can lead to better health outcomes and improved overall well-being for users.

IMPORTANCE: I would rate the practicality of this suggestion as a 7. With the advancements in AI technology and the increasing focus on personalized nutrition and wellness, I believe it is likely that mobile apps utilizing AI algorithms for personalized nutrition advice will become practical in the near future. The key challenge will be ensuring the accuracy and relevance of the recommendations provided by the apps.

UNIQUENESS: I would rate this suggestion a 7 on the uniqueness scale. While personalized nutrition apps utilizing AI algorithms do exist, the incorporation of activity levels, dietary preferences, and health goals to provide customized recommendations sets this suggestion apart. This holistic approach to personalized nutrition advice is a unique offering in the world of mobile apps.

<p>ATTRACTIVENESS: I would rate this suggestion as an 8 on the attractiveness scale to investors. With the growing focus on personalized health and wellness, there is a high demand for apps that can provide customized nutrition and wellness guidance. By leveraging AI algorithms to analyze user data and provide tailored recommendations, this app has the potential to attract a large user base, generate substantial revenue through premium subscriptions and partnerships with food-related companies, and ultimately be a valuable asset for investors.</p> <p>SOCIAL GOOD: A mobile app that uses AI algorithms to analyze user data and provide personalized nutrition advice, recipe suggestions, and shopping lists can potentially have a positive impact on the user’s health and well-being. By tailoring recommendations based on individual needs and goals, the app can help users make healthier choices and improve their overall nutrition.</p> <p>In terms of social good, this app can contribute to reducing the prevalence of diet-related diseases, promoting healthier eating habits, and ultimately improving public health outcomes. By empowering users with personalized information and resources, the app can support them in making more informed decisions about their diet and lifestyle.</p> <p>Overall, the social good produced by a mobile app that utilizes AI algorithms for personalized nutrition guidance can be significant in promoting a culture of wellness and helping individuals lead healthier lives.</p> <p>SLOGAN: “Nutrition tailored just for you, powered by AI”, “From groceries to meal plans, we’ve got you covered”</p> <p>INVESTMENT PITCH: Investing in mobile apps that leverage AI algorithms for personalized nutrition guidance is a lucrative opportunity with high potential for growth. These apps have the ability to revolutionize the way individuals approach their health and wellness by providing tailored recommendations based on their unique preferences and goals. With the increasing demand for convenient and efficient ways to manage health and nutrition, these apps have the potential to attract a large user base. By tapping into the advancements in AI technology, these apps can continuously adapt and improve their recommendations, ensuring continued engagement and loyalty from users. Ultimately, investing in this space has the potential to not only generate substantial profits but also make a meaningful impact on the well-being of individuals worldwide.</p> <p>INVESTMENT PUSHBACK: The investor may be concerned about the potential privacy implications of collecting and analyzing extensive personal data, especially in the sensitive area of dietary choices and health goals. Additionally, the investor may question the accuracy and effectiveness of AI algorithms in providing truly personalized nutrition advice, as the field of nutrition is complex and constantly evolving, making it difficult for any app to truly understand individual dietary needs and preferences.</p> <p>PUSHBACK ANSWER: The pushback against AI algorithms analyzing user data for personalized nutrition advice often revolves around concerns about privacy and data security. This can be addressed by implementing stringent data protection measures, ensuring transparent user consent processes, and providing clear explanations of how the data is used to deliver valuable personalized recommendations. By emphasizing the benefits of tailored nutrition guidance, improved health outcomes, and convenience, users can be more willing to embrace the technology and see the value in investing their time and personal information in the app.</p> <p>COMPROMISE: One compromise solution to encourage people to invest in this idea could be to offer a free trial period for the app, allowing users to experience the personalized recommendations and benefits first-hand before committing to a subscription or one-time purchase. Additionally, offering discounts or promotions for signing up for a longer subscription period or referring friends to the app could incentivize users to make the investment. Providing regular updates and improvements to the app based on user feedback can also help maintain user engagement and loyalty. By demonstrating the value and effectiveness of the AI-powered nutrition app, people may be more willing to invest in the idea.</p>

Table 7: AI “deep dive” analysis of its own suggested innovations.

Discussion and Conclusions

The personal food microbiome is a burgeoning area of research that delves into the distinct array of microorganisms residing in and on our bodies, especially within our gut. This diverse assembly of bacteria, viruses, and fungi significantly influences our health, aids digestion, and fortifies our immune system. Understanding our personal microbiome allows us to customize our diets, nurturing these beneficial microorganisms and enhancing our overall health and well-being. Here are five things to consider

- How does the personal microbiome influence our food choices? Understanding our personal microbiome reveals which foods best support the growth of beneficial gut bacteria. For instance, an individual with a greater presence of specific bacteria might gain advantages from increasing their intake of fiber-rich foods to foster their development.
- In what ways can understanding our personal microbiome influence our digestion? The gut microbiome is essential for breaking down and digesting the foods we consume. Understanding our personal microbiome allows us to pinpoint potential food intolerances or sensitivities that could be affecting our digestion and overall health.
- Can understanding our personal microbiome assist in weight loss or help us sustain a healthy weight? Studies indicate that the gut microbiome plays a significant role in shaping our metabolism, appetite, and weight. Understanding our personal microbiome allows us to make dietary choices that nurture a healthy balance of gut bacteria, potentially aiding in our weight loss or maintenance efforts.
- In what ways does our personal microbiome influence our immune system? The gut microbiome is essential for managing our immune response and shielding us from harmful pathogens. Understanding our personal microbiome allows us to make dietary choices that nurture a healthy balance of gut bacteria, potentially enhancing our immune system and lowering the risk of infections and diseases.
- Can our personal microbiome influence our mental health and mood? By understanding our personal microbiome, we can make dietary choices that support a healthy balance of gut bacteria, which may in turn improve our mood and overall well-being.

Ultimately, an important question to ponder is: How can we transform our personal microbiome? The microbiome, shaped primarily by genetics, is also swayed by environmental influences, lifestyle decisions, and dietary practices. Conscious choices in our diet-embracing a variety of foods, adding probiotics and prebiotics, and managing stress-can enhance our microbiome and promote our overall health and well-being.

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