The Role of Data Science in Member Engagement

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We are a network of health care professionals addressing the challenges posed by the emerging landscape of value-based care and government health care reform.

OUR MISSION

Our mission is to provide a community for like-minded professionals to come together for networking, education, and industry collaboration to stay ahead and advance their careers.

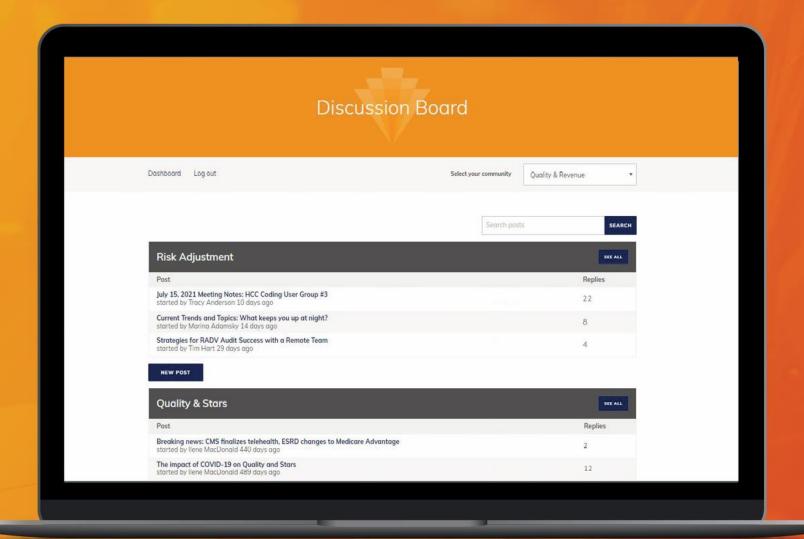
ONE ASSOCIATION THREE COMMUNITIES







LEARN MORE AT THE RISEHEALTH.ORG/MEMBERSHIP



ASK YOUR QUESTIONS IN OUR DISCUSSION BOARD

In This Presentation You'll Learn:

- Basic understanding of what data science is and isn't
- How to use data science to inform your member engagement efforts
- Lessons from a Medicare member acquisition case study



What Is Data Science?

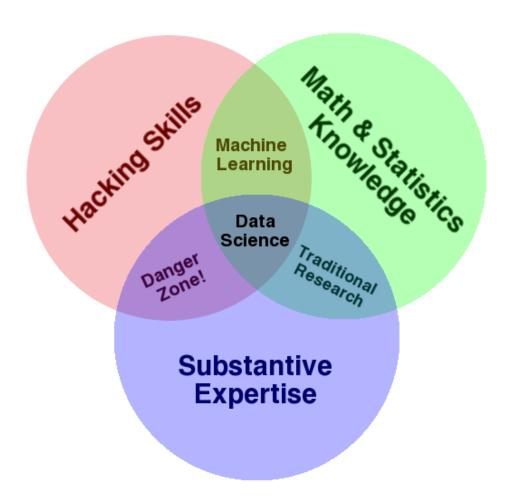
...an interdisciplinary academic field that uses statistics, scientific computing, scientific methods, processes, algorithms and systems to extract or extrapolate knowledge and insights from noisy, structured and unstructured data.

https://en.wikipedia.org/wiki/Data_science

A Day In The Life Of A Data Scientist

- Learning the business
- Understanding the problems/needs of the business
- Identifying ways of measuring the impact of those problems
- Figuring out if we can model that impact in a way that can be productized
- Programming in SQL, R, and Python to:
 - Collect/clean data
 - Using statistics and machine learning to model data testing the effects of features on outcomes
- Communicating the results of those modeling efforts back to the business

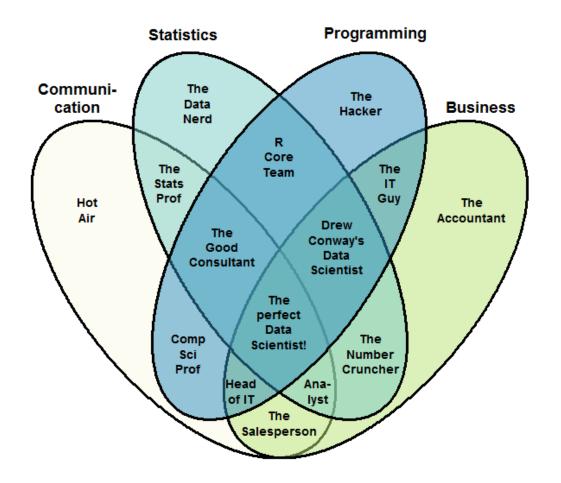




Traditional Data Science Skill Set

- Coding
- Math and statistics
- Engineering
- Machine learning
- Computer science
- Subject matter expertise

The Data Scientist Venn Diagram



Data Science— Broad Skill Set

- Communication
- Business knowledge
- Strategy

Additional Skillsets

STRATEGY

How does the model fit into the long-term goals of the business?

STORY TELLING

How can we fit this model and its output into a larger narrative?

ETHICS

Does this manipulate specific human behaviors or disproportionally impact one or more populations?

RISK MANAGEMENT

Consequences of a bad model on reputation, clients, etc.



Data Science—More Than A Definition & A Venn Diagram

- Ask open ended questions
- Find data and figure out how to answer questions without easy answers
- Identify what other questions need to be asked
- Know the modeling options and select what best fits the question or problem being asked
- Triangulate whatever resources were available to create a test/hypothesis to solve the question/problem



How Does Data Science Fit Into Your Member Engagement Strategy?

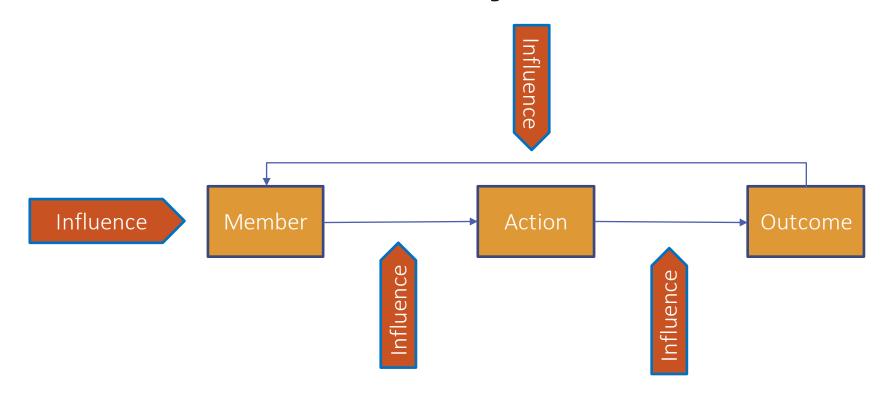


What Is Member Engagement?

Member engagement is the process of actively building, nurturing & managing relationships with all segments of your audience to increase membership volume, value and retention.

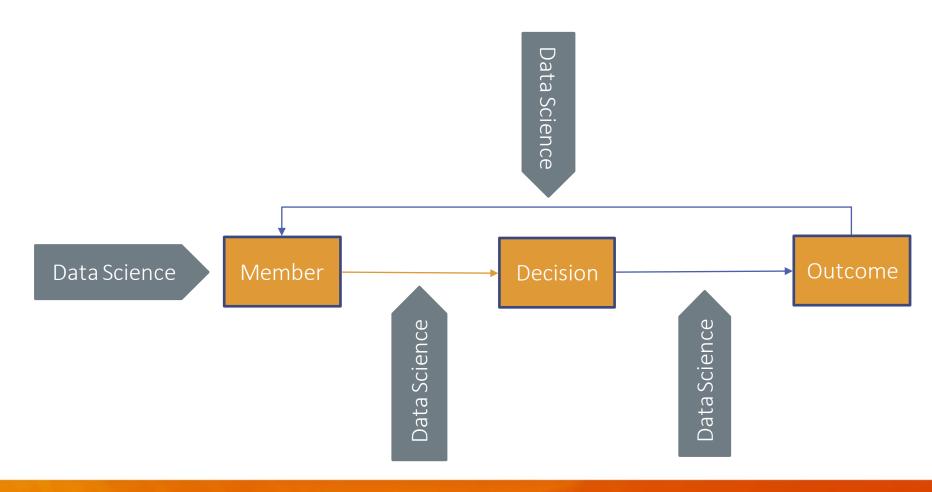


Engagement Happens At A Variety Of Points In A Member Journey...



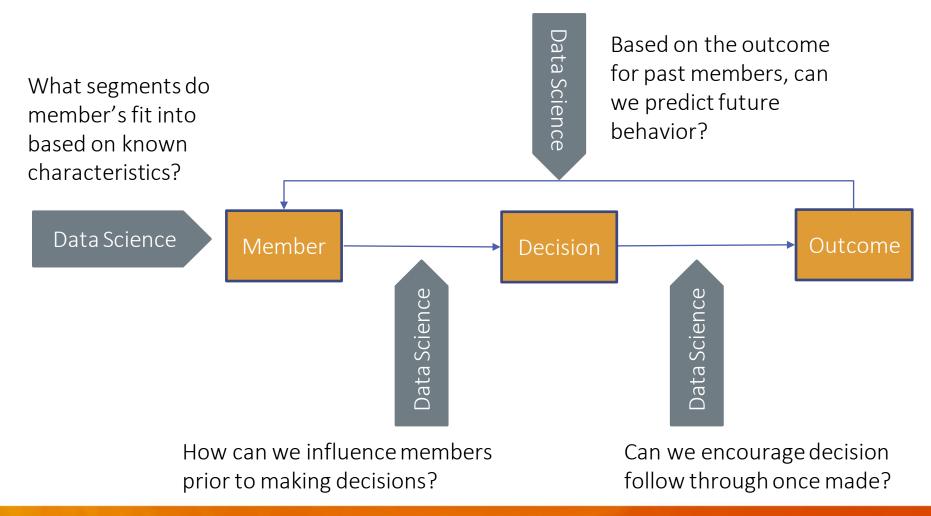


Introduce Data Science At Multiple Points





At Each Point, Data Science Can Address Different Questions Or Outcomes

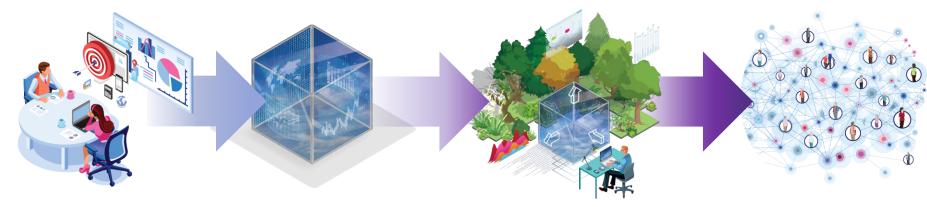




Medicare Member Acquisition As A Case Study



Approach To Member Acquisition



CLIENT COLLABORATION

- •Set objectives with client
- Define outcomes using standard client intake forms

DATA

Gather data from client in raw form adhering to a common data standard

MEMBER ACQUISITION PLATFORM

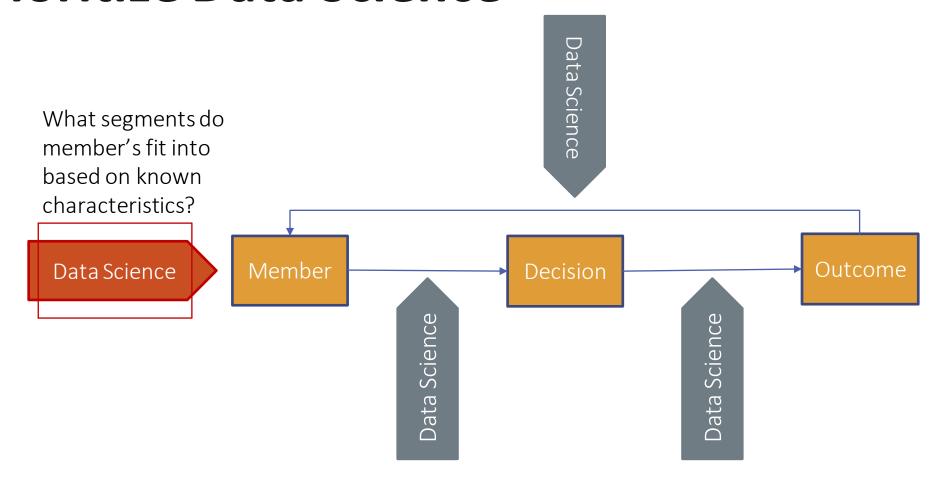
- Ingest data and run through CDS ETL
- Create segments
- Create content and outreach strategy

ENROLLMENT

- Run campaign collecting analytics
- Feed analytics into Smart Conductor to refine segmentation and outreach

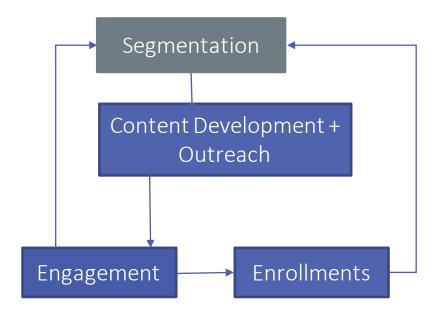


Prioritize Data Science





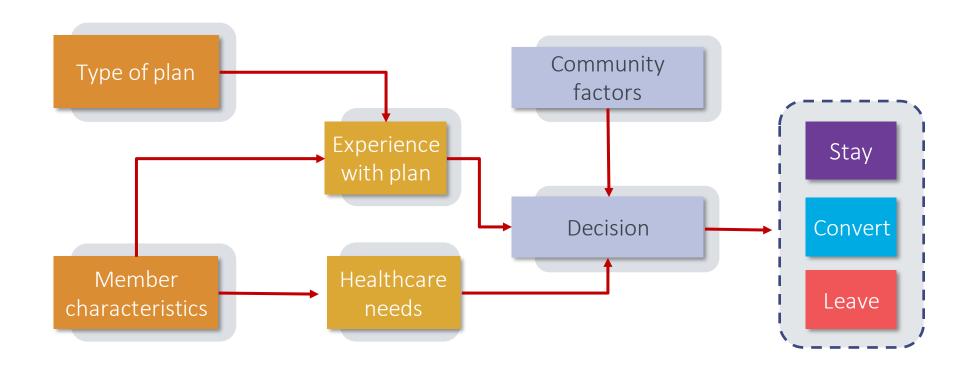
Prioritize Data Science





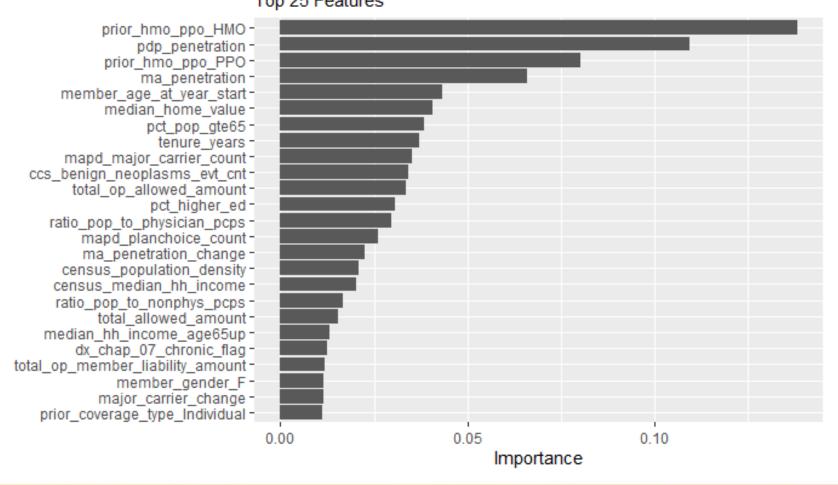


Prioritize Data Science

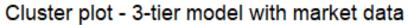


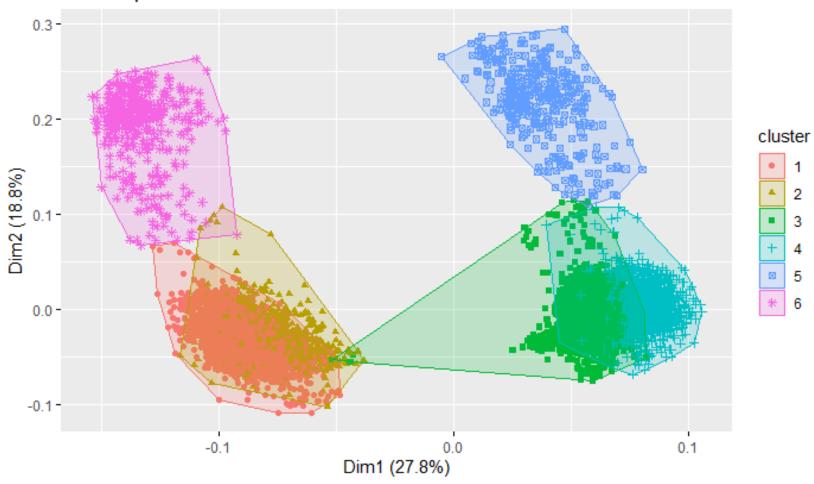
Prominent Features In Our Current Analysis

Variable Importance: G2I final fit - Market Data Enhanced
Top 25 Features

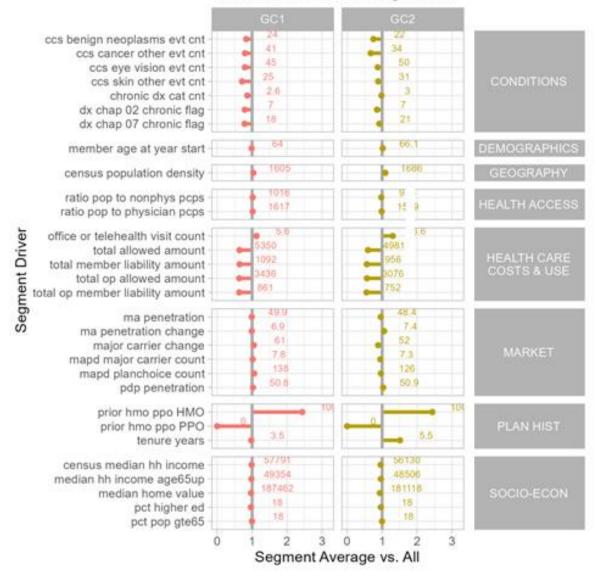


Segmentation Visualization

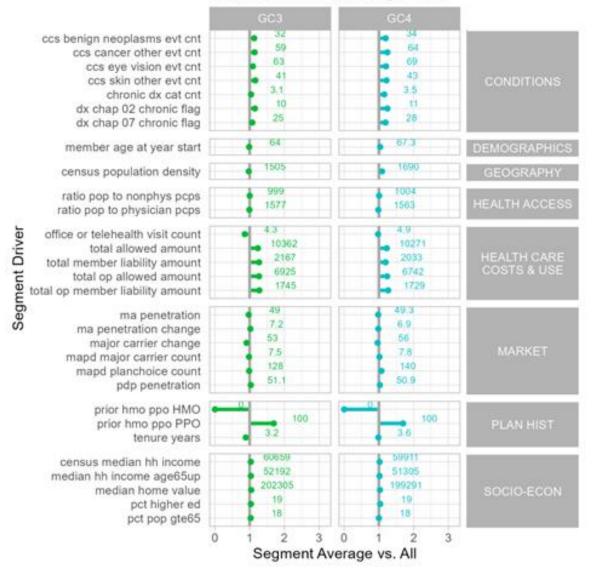




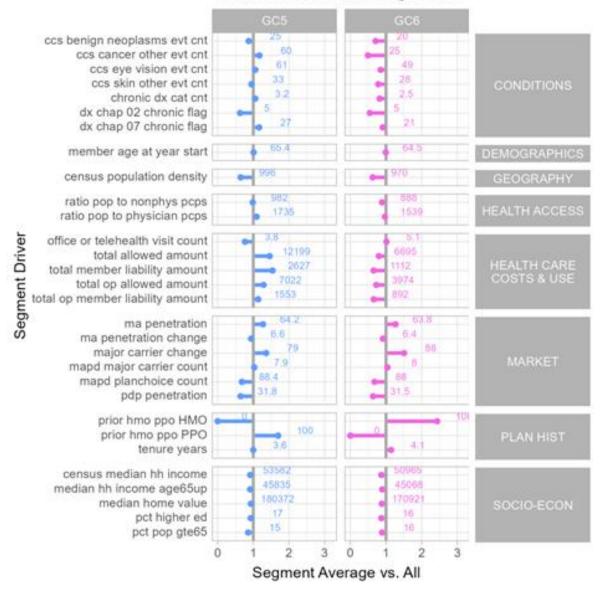
GC1 & GC2 Segments

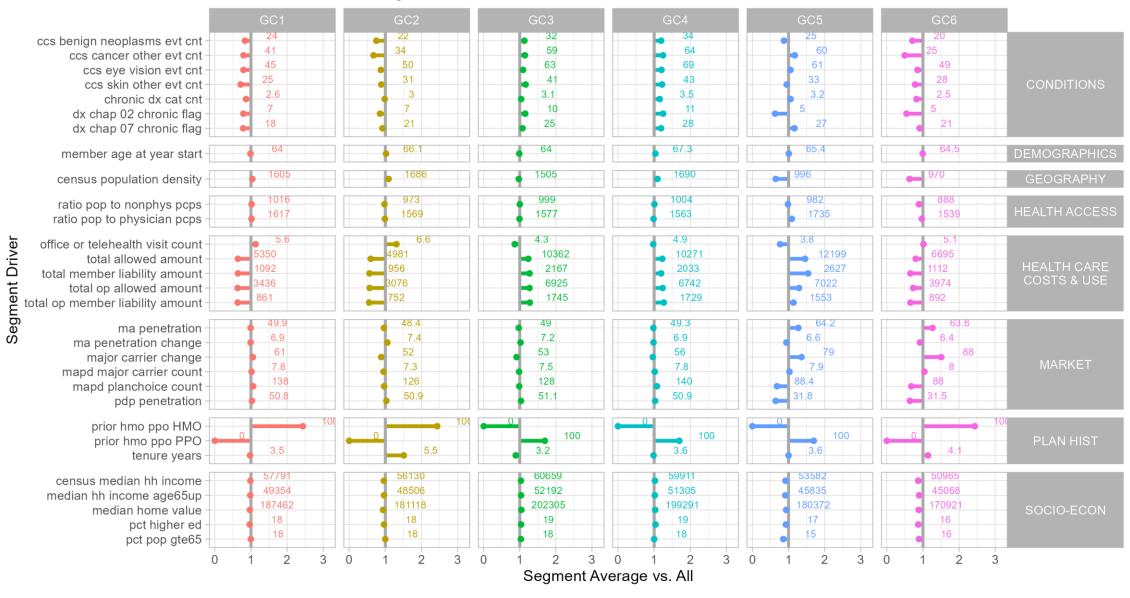


GC3 & GC4 Segments



GC5 & GC6 Segments

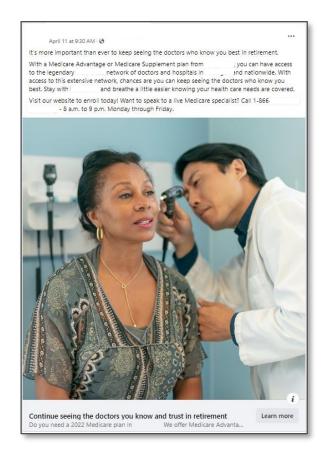


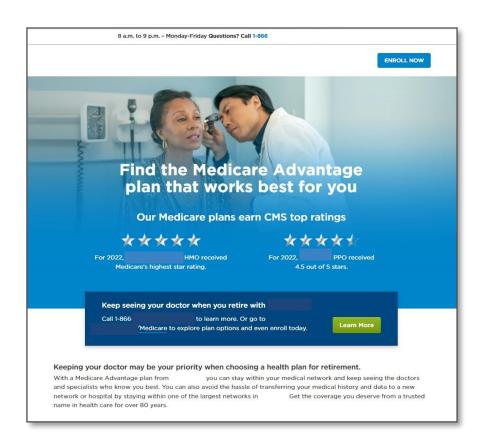


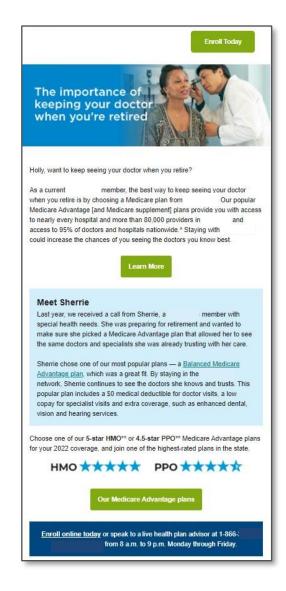
Examples of campaigns with data science input...



Segment Continuity of Care







"It's more important than ever to keep seeing the doctors you know in retirement."



Key Takeaways

- We defined all the qualities of a data scientist, but just because you don't have a "Perfect Data Scientist" doesn't mean you can't leverage other data science-adjacent skillsets to meet your goals and objectives.
- When you think about a member's journey, and how you want to shape your marketing efforts to impact that journey, the skills of a Data Scientist should be deployed at specific touch points along that journey to help answer questions about what to emphasize and deemphasize.
- Make sure your data science resources have clearly defined outcomes and objectives. Provide a clear use case and sufficient business context to your data scientists or analysts so their findings can align with business needs.

THANK YOU

