

TREXIN CASE STUDY

EXPLOITING DATA SCIENCE TO EXTRACT BUSINESS INSIGHT

Trexin helped a MedTech company address a vexing business problem and build a “data to insights” foundation.

As a standard of care for physicians to evaluate a patient’s condition and therapy after receiving an implantable device, a large medical device manufacturer bundled monitors with each device (at no extra cost to the patient or the clinic). But it was known that many of the monitors being distributed were never used, impacting patient care at a significant operational expense. With relevant sales, manufacturing, and distribution data plentiful but strewn across numerous platforms and IT systems, actionable business insight into the problem was limited and did not appear forthcoming. Eager to break through the organizational inertia that had formed, the group’s Director of Marketing challenged Trexin to drive two key insights within 90 days:

- 1) Quantify the magnitude of the waste, and
- 2) Narrowly identify the points where waste is occurring.

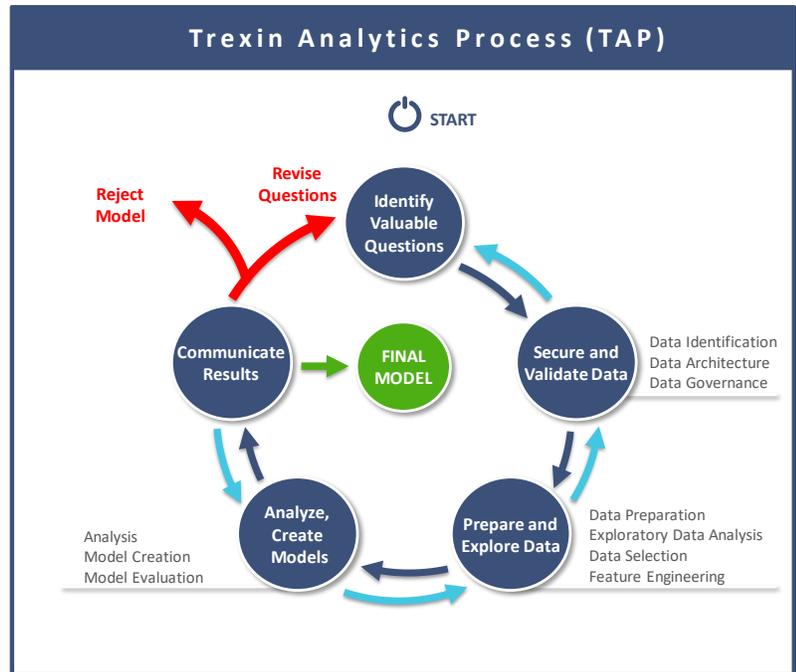
APPROACH

Within the structure of a 12-week timebox, our approach was based on our Trexin Analytic Process (TAP), an iterative data science methodology designed specifically for rapid discovery and exploration. Specific activities for this particular project included:

- Understanding the value stream in the life of a monitor
- Creating a journey map of key events and activities
- Cross-referencing the events/activities to the systems in which data is collected
- Identifying the data elements needed for analysis
- Creating a logical data model and populating a new database to aggregate multiple data sources (and support an ongoing data science process that we later recommended)
- Applying various data science techniques and algorithms such as linear and logistic regression and decision trees (using R, a widely-used data analysis tool)
- Creating and maintaining a prioritized backlog of important business questions to answer using data science
- Presenting findings every 2 weeks, with work prioritized by the business sponsor

RESULTS

In the 90-day execution window, Trexin successfully quantified the scale of waste and isolated points of loss, including duplicate monitors, patient enrollment issues, and connectivity problems. Trexin also provided a list of opportunities to remediate gaps and strengthen capabilities. By leveraging the project artifacts and the TAP itself as a pathfinder for future analytics, our Client also acquired the foundation to build a longer-term and larger “data to insights” capability. Foundational elements included a cross-functional framework for collaboration, legal policy guidance regarding data usage, and a working model for data requests to alleviate the recurring (and highly frustrating) problem of “I can’t get my hands on the data” that most business users regularly experienced.



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