

C4E Leads AI Transformation at Major Insurer

Client approached Creospan Subject Matter Experts for help ideating, validating, and implementing practical AI use-cases with measurable business impacts. By bridging the gaps between AI R&D & Implementation, Creospan's AI Center-4-Enablement (C4E) empowered a major health insurer achieve AI self-reliance. The AI C4E enabled the client's business to modernize existing software using AI, reducing development time on some projects by more than 90%. The C4E established protocol and provided training for building new AI assets from scratch. Lastly, the C4E helped manage AI assets, including assisting others in efficiently searching, testing, deploying, maintaining, and sharing existing AI assets as APIs. As a result, the AI C4E became a center of gravity for AI R&D and Strategy, as well as for emerging tech innovation in general.



90% Reduction In Dev Time

Prior to the C4E, many Natural Language Processing (NLP) Applications were built using heavily rules-based approaches. Adopting Deep Learning-based approaches reduced code complexity and overall delivery time by more than 90% for some NLP applications.



6 Enterprise-Class Assets

Stakeholder interviews revealed Sales and Communications could be improved with AI. We built a recommender system for Sales team to help members select the right plan for themselves, and NLP tools for improving data quality, reducing data leakage, and automating customer support. This includes obtaining a patent related to automatically curating Protected Health Information (PHI) data.



200+ Employees Trained

In addition to establishing the strategy and protocol for building company AI assets, the C4E designed and taught a python-based AI curriculum to 200+ client full-time employees over a "lunch-n-learn" series.

The Story

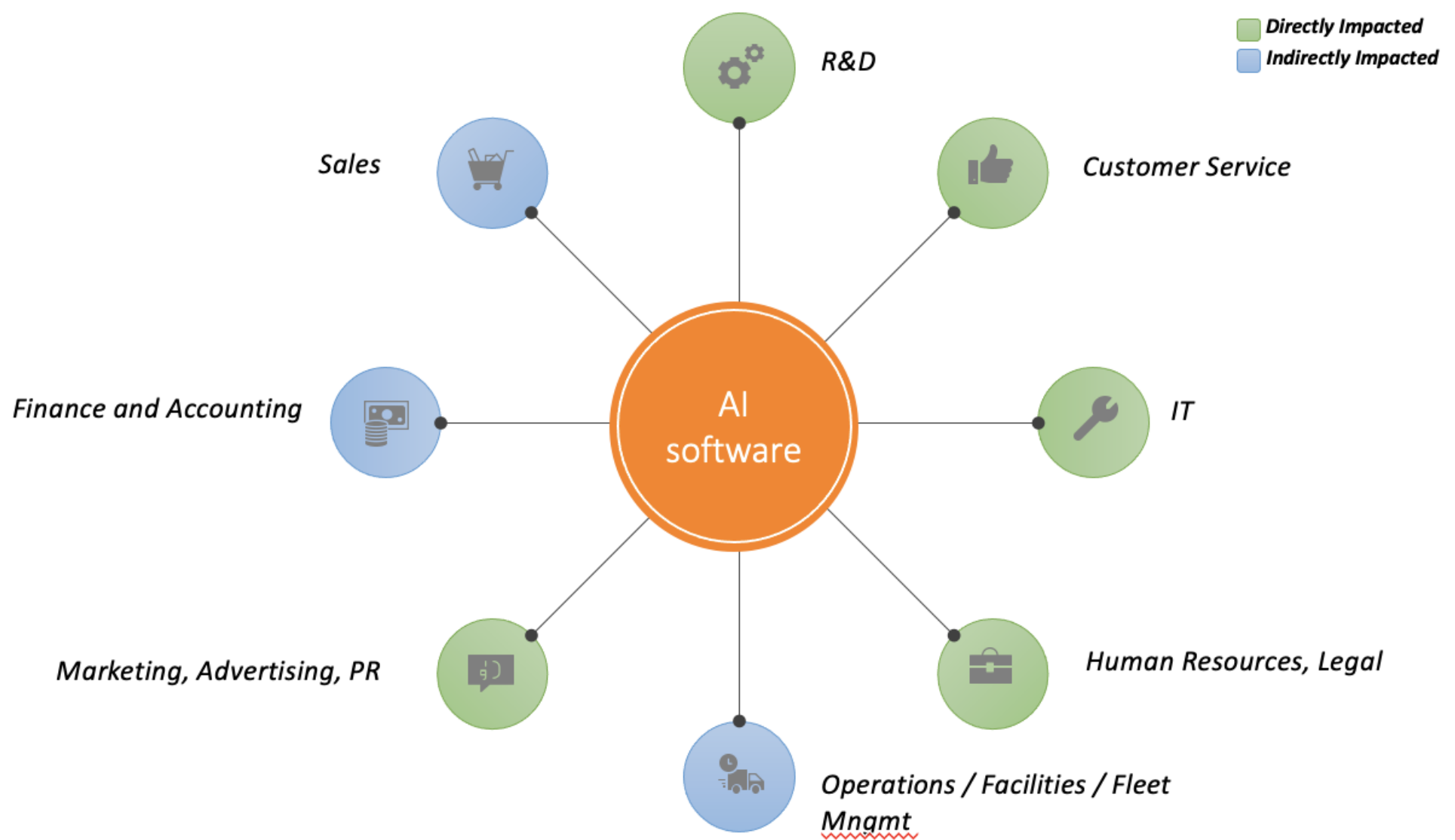


Why AI? Why now?

Our client makes money selling health insurance. Customers buy health insurance based on numerous factors, including plan relevance, plan accessibility, and brand loyalty. Additionally, the nature of operating a health insurance business leads to many inefficient, manual business processes. Client engaged Creospan to find ways AI can both (1) optimize for insurance sales and (2) reduce operational expenses.

The Mission

The Client recognizes AI as a high-leverage area and consults Creospan to discover ways they can use AI to sustainably drive profitability and growth. Client and Creospan collaborate to discover business areas that can be impacted by AI of any kind, such as processes automation or predictive/prescriptive analytics. Finally, Creospan helped Client define and execute an AI Transformation strategy and delivery priorities.

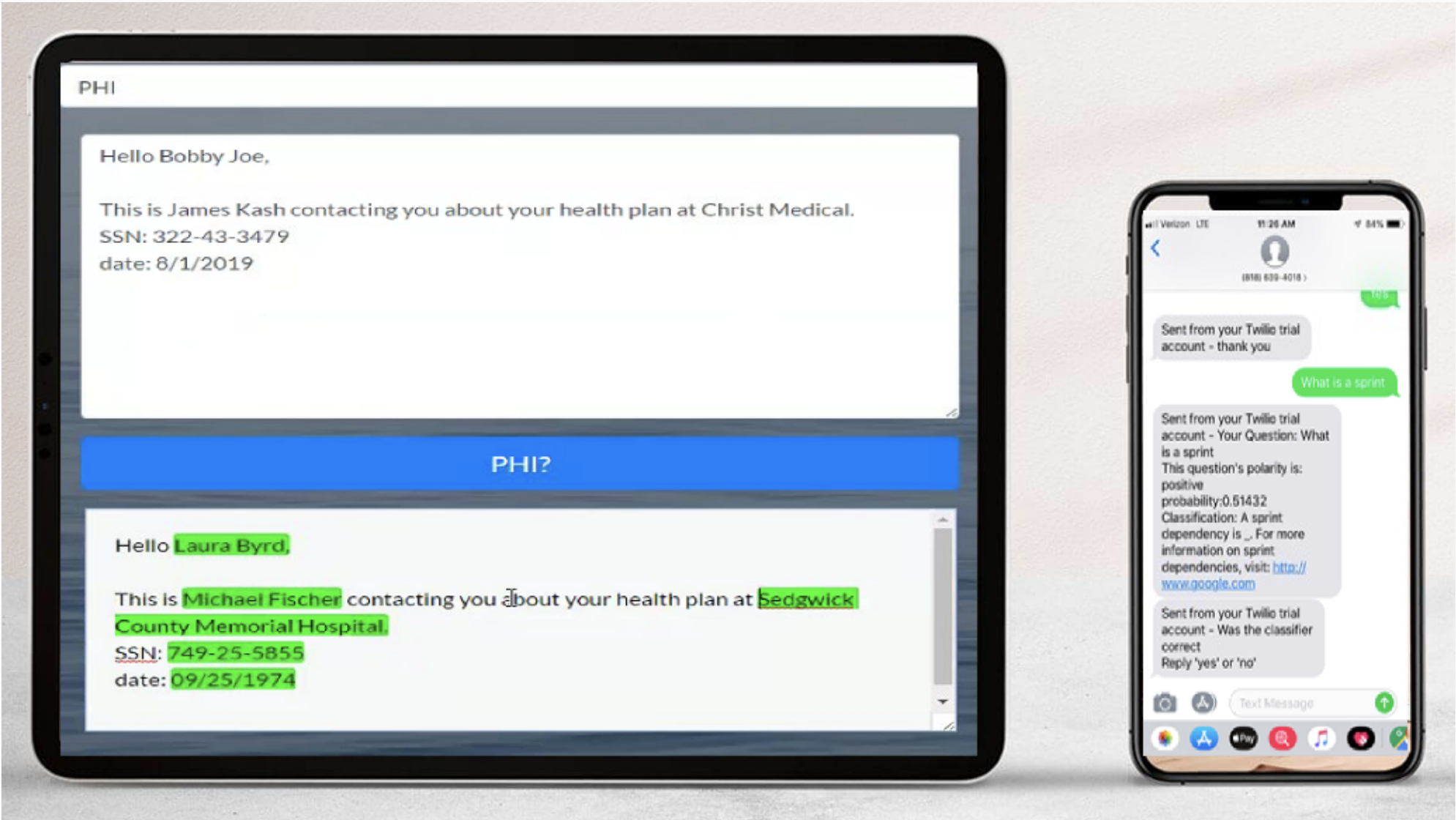


The Strategy

The strategy was simple, yet effective. First, we catalogued available data. Next, we introduced protocol, such as data and model version control, for ensuring that any AI built by us or others was Governable. We also helped establish a Tech Ethics committee to ensure any AI built was Safe, Ethical, and Fair. Next, we uncovered pain points across multiple business areas, then prototyped solutions for addressing those pain points. This ultimately culminated in the formation of a Natural Language Processing R&D team of 10 people sustainably creating tools documenting best practices that support many other business areas. The team even builds customer-facing features.

The Results

New Products, Processes, Patents, and Possibilities



NLP App Dev Time Reduced by 90%

Our client traditionally builds language applications using rules-based approaches. Using end-to-end Deep Learning-based approaches, Creospan was able to reduce the time it takes to develop NLP applications (such as Name Entity Recognition) 90% more quickly than other teams without compromising on final product quality.

"Using AI, the C4E team accomplished more for data masking in one summer than our entire Data Management team accomplished in two years with a rules-based system."



Client CIO

Engaging Customers with AI Fuels Profitability

AI can be used as a Sales Assistant! Using historical client data, Creospan built a recommender system that matches customers with plans that other customers like them have selected in the past. Recommending relevant insurance plans helps dramatically reduce the cognitive, decision-making burdens customers encounter when shopping for plans, thus reducing frction in the buying process.

Monthly cost for Billy 563.0393949124997
Recommendations for Billy:

Out[9]:

	Metal_Level	Plan ID	Out_Of_Pocket	Deductibles	Monthly_Payment	Ratings
23	Platinum	P1	1000	0	600.0	4.8
24	Platinum	P2	1100	100	580.0	4.7
25	Platinum	P3	1200	200	590.0	4.6

```
In [10]: print("Monthly cost for Dennis",cost_for_dennis)

print("Recommendations for Dennis:")
rec=recommendation[recommendation['Monthly_Payment']>=cost_for_dennis].copy()

Plan=rec.sort_values("Monthly_Payment",ascending=True)
Plan.head(3)
```

Monthly cost for Dennis 261.78306685833337
Recommendations for Dennis:

Out[10]:

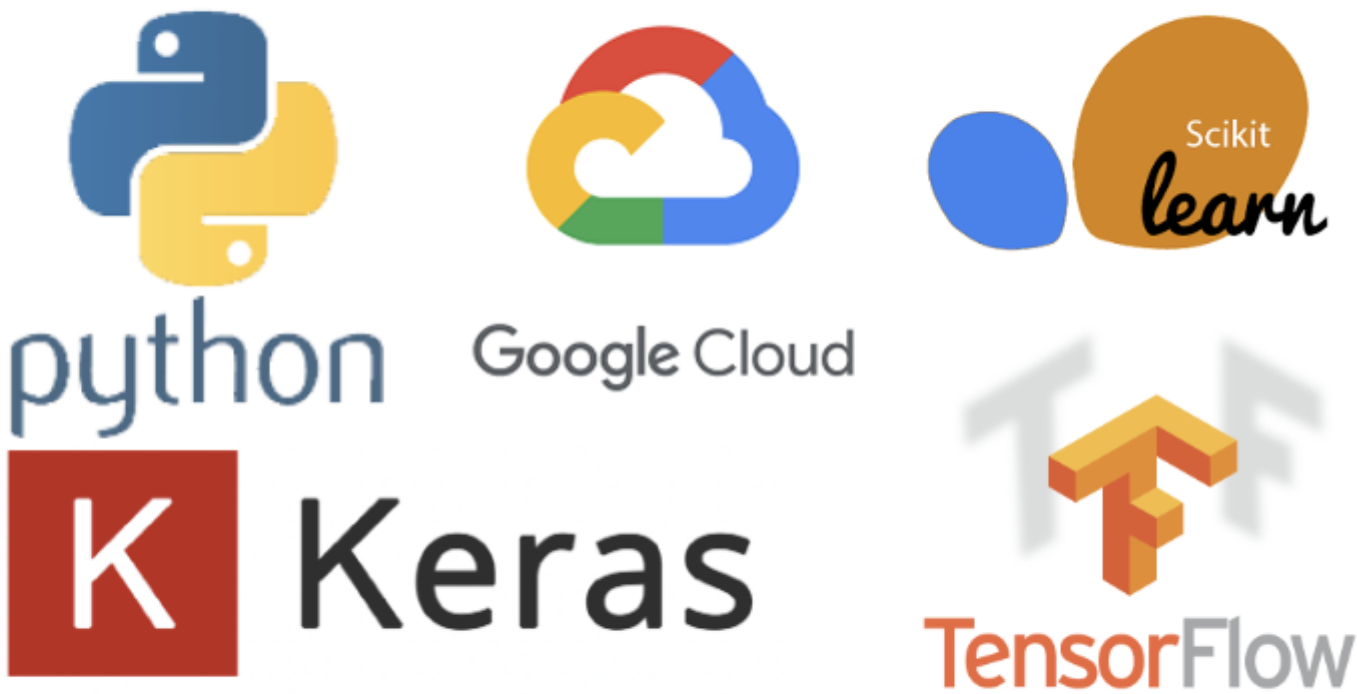
	Metal_Level	Plan ID	Out_Of_Pocket	Deductibles	Monthly_Payment	Ratings
12	Gold	G1	5000	4000	300.0	3.9
13	Gold	G2	4500	4500	310.0	5.0
14	Gold	G3	4250	3250	315.0	3.8



General Innovation Yields Unintended Benefits

To design and build impactful AI, Creospan introduced new business processes. Unintentionally, these processes were also impactful for other emerging tech opportunities. For example, while exploring ways to curate healthcare data for ML model training, the team inadvertently designed a patented data auto-annotation process. Additionally, because of our AI C4E work, Creospan was ready to serve as our client's scrum master on an [inter-org blockchain project](#) that has since evolved into a joint venture known as [Avaneer](#).

Tools Used and Services Employed



Strategy



App Development

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Cloud

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Machine Learning

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Testimonials

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Abraham Linkon , Themefisher.com

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It's time to change your mind

Collaborate with [Creospan](#) today to explore ways emerging tech can materially impact your business!
We say you won't look back.

LEARN MORE

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