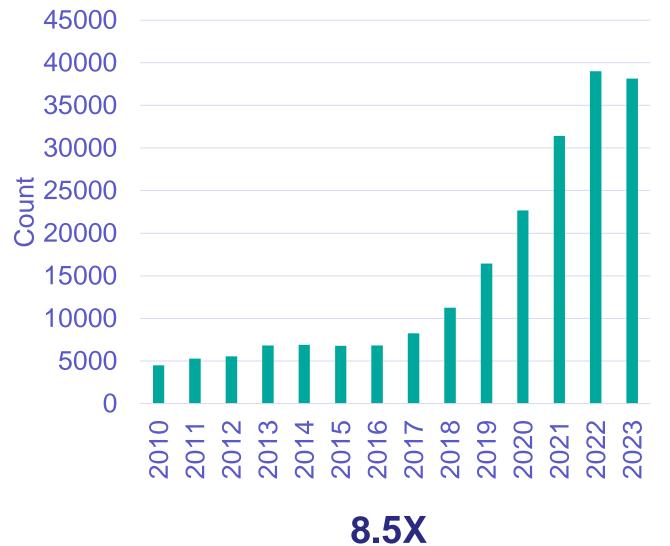




#### PubMed Publications by Year Search Query: Artificial Intelligence



# PubMed Publications by Year Search Query: Machine Learning



Tech: Don't be Afraid of Healthcare

### Google: "technology companies that failed big in healthcare"



#### **IBM Watson**

This artificial intelligence (AI) data analytics solution failed after years of unprofitability.

## Google: "technology companies that failed big in healthcare"

### Google Health

Google Health

This personal health record service ran from 2008 to 2012, but was short-lived and not very useful.

### Google: "technology companies that failed big in healthcare"



#### Microsoft HealthVault

This platform for storing personal health and fitness information was similar to Google Health.



#### Bezos health investments reveal strategy

Bezos is willing to make big bets and wait a long time. Bezos has been investing in health tech since the 1990s, when Amazon took a big...

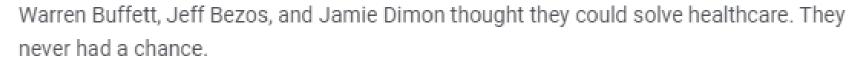






Los Angeles Times

#### Hiltzik: Why Buffett, Bezos and Dimon went bust on healthcare



Jan 4, 2021





TechRadar

#### Amazon is laying off hundreds of workers in its healthcare division

Amazon is cutting hundreds of jobs across its two health-focussed companies, One Medical and Amazon Pharmacy, suggesting that even top brass...

Feb 7, 2024



Tech: Don't be Afraid of Healthcare

# **Necessary Building Blocks**



**Domain Expertise** 



Understanding of Reimbursement Landscape



**Experience Working in Regulated Industry** 



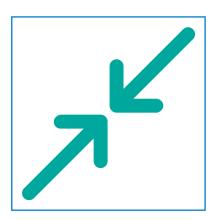
# Challenges to Overcome



Knowledge/skill gap



Access to high quality data



Resistance to change

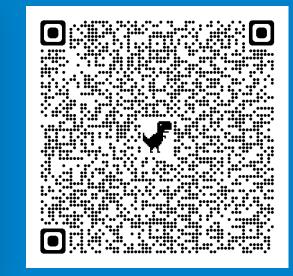


# Case Example

- Improve diagnosis of joint infection by providing Probability Score (%)
  - Step 1: Start small low stakes project
  - Step 2: Make inroads with key collaborators and stakeholders
  - Step 3: Bridge knowledge gaps
  - Step 4: Leap of Faith

Achieving High Accuracy in Predicting the Probability of Periprosthetic Joint Infection From Synovial Fluid in Patients Undergoing Hip or Knee Arthroplasty: The Development and Validation of a Multivariable Machine Learning Algorithm

Pearl R. Paranjape <sup>1</sup>, Van Thai-Paquette <sup>1</sup>, John L. Miamidian <sup>1</sup>, Jim Parr <sup>2</sup>, Eyal A. Kazin <sup>2</sup>, Alex McLaren <sup>3</sup>, Krista Toler <sup>1</sup>, Carl Deirmengian <sup>4, 5</sup>



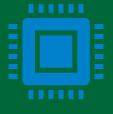
# Summary



Tremendous opportunity



Technology Capability + Domain Expertise



How to scale?

Data access
Privacy considerations
Functional support
(clinical, regulatory,
quality)

