A. I. is everywhere,

So are HUMANS

Design Thinking for Artificial Intelligence

Design Intelligence

for

Artificial Thinking

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DT for AI: - Overview

- Embrace Interdisciplinary TEAM atmosphere
- Re-align who OWNS Technological Innovation
- Partner Smart Employees with Smart Technology

Design thinking involves observation to discover unmet needs within the context and constraints of a particular situation. It frames the opportunity and scope of innovation, generating creative ideas, testing and refining solutions. It creates a repeatable and scalable process for innovation.

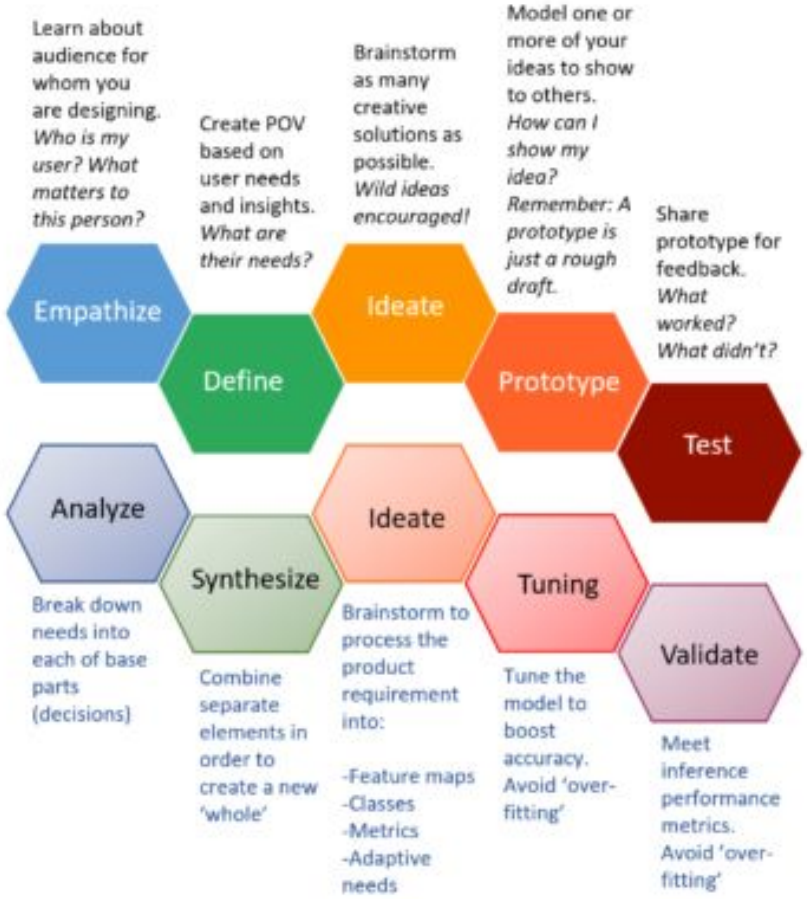
Design Thinking

designs products this way…

refines, tunes and predicts this way…

Machine Learning

Machine learning is a method of data analysis that automates analytical model building. Using algorithms that iteratively learn from data, *machine learning* allows computers to find hidden insights without being explicitly programmed where to look.



Source: John Morley & Associates

DATA vs DESIGN perspective

- Data- Images, texts, videos, .csv
- Models
- Labels
- Precision/ Recall
- PCA, SVM, K-Means, VAE, GANs...
- Hyper parameter Tuning

- 3- Click RULE
- Golden Ratio
- F- shaped Pattern
- Wireframe
- Card Sorting
- Heatmap
- Empathy MAP

Guest Speaker : Mr. Zulfi Ali Bhutto, Business Head, India & SAARC, STEELCASE

Examples of Design Thinking applied to DATA Science

- Are children more creative than adults ?
- Convergent vs Divergent Thinking.
- I encourage you to be divergent and flexible..

- Overdraft Penalty

Problem:

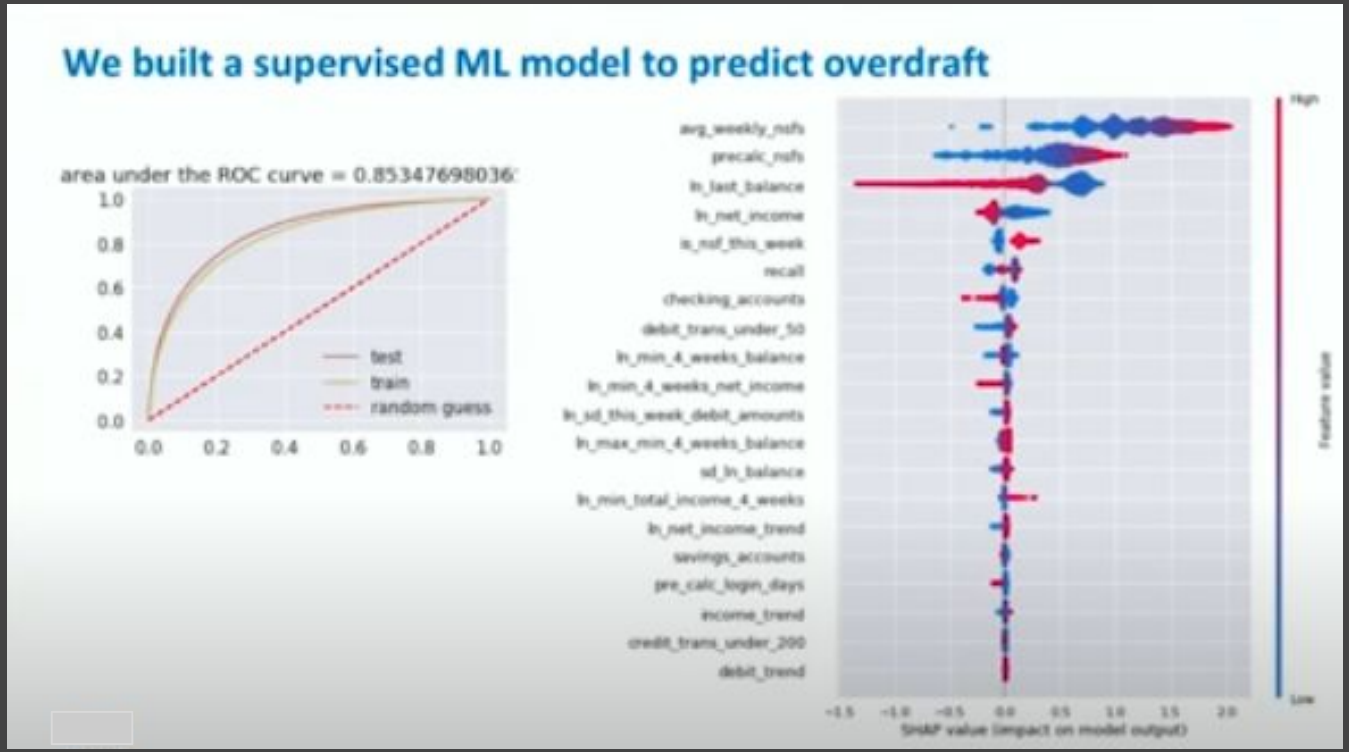
Americans pay billions of dollars in overdraft fees every year when they have insufficient funds.

50% of those fees are for transactions totaling less than $50.

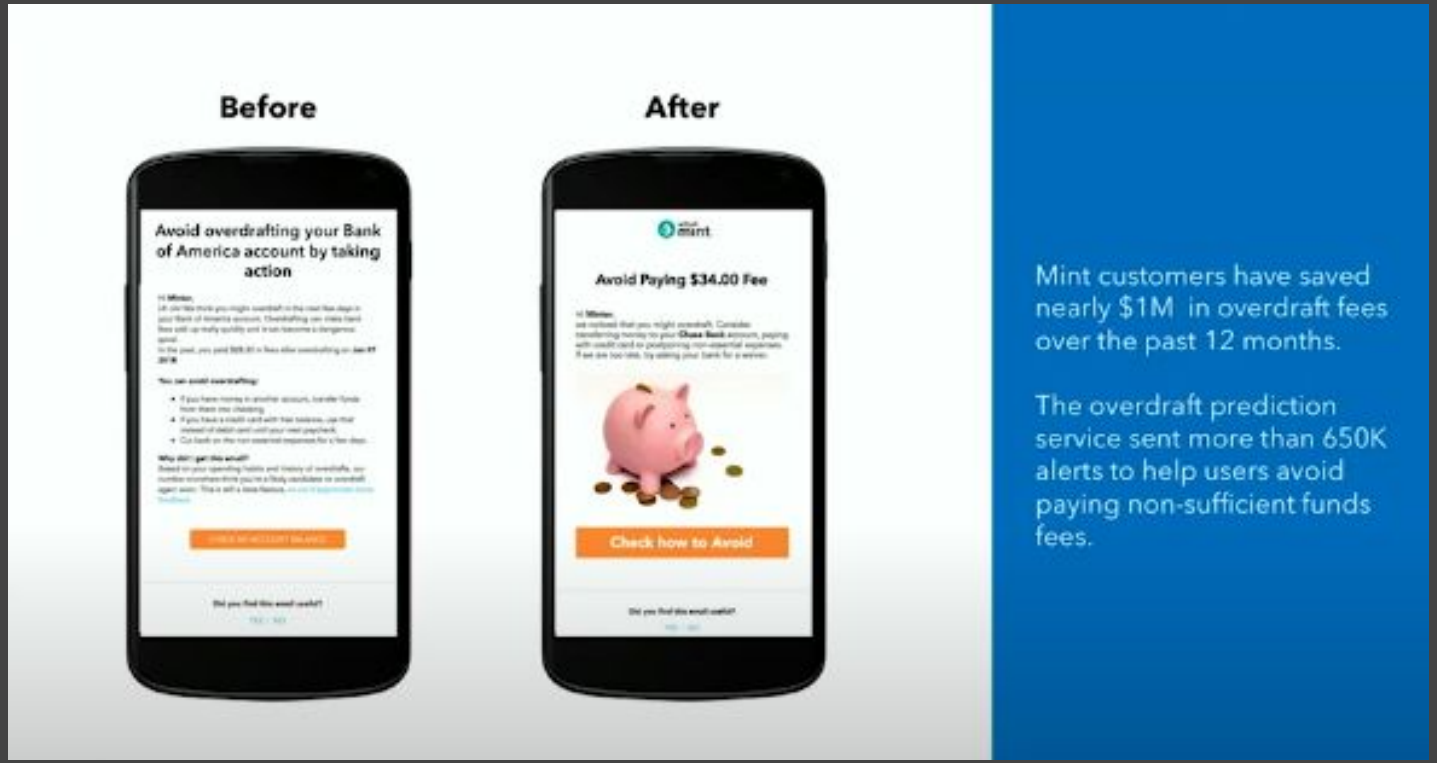
The average overdraft fee is $35.

It's hard for people to get ahead.

- Highly accurate AI model : prediction.....but !!!!



- Included DT principles : less to read, action points...



Example #2 - Mileage Tracking

Problem:

Business-related trips are tax-deductible for the self-employed.

The QuickBooks Self-Employed mobile app automatically tracks trip miles.

It's time-consuming to review trips to determine which are personal and which are for business.

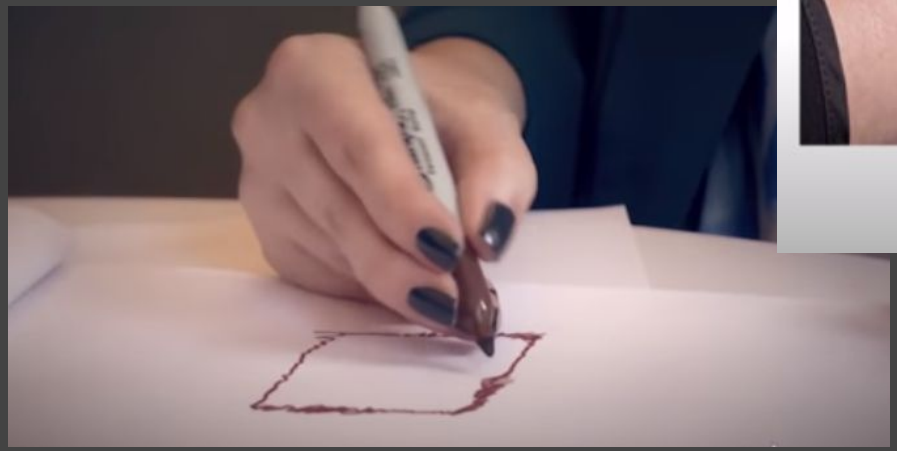
- # Example #2 - Mileage Tracking

We used pattern mining to group business vs. personal trips

Sample business trip data for a user

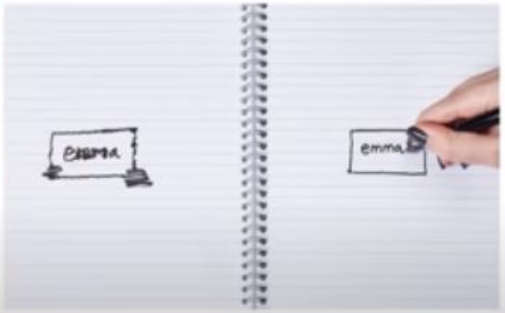
Trip_id	Start_location	End_location	Is_weekend_trip
12345	A	B	False
34394	A	B	False
15353	A	C	True
34293	A	B	False
46483	B	A	True

- Example #3 -



Emma

Final prototype



Writing samples

Innovating for Inclusion