
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

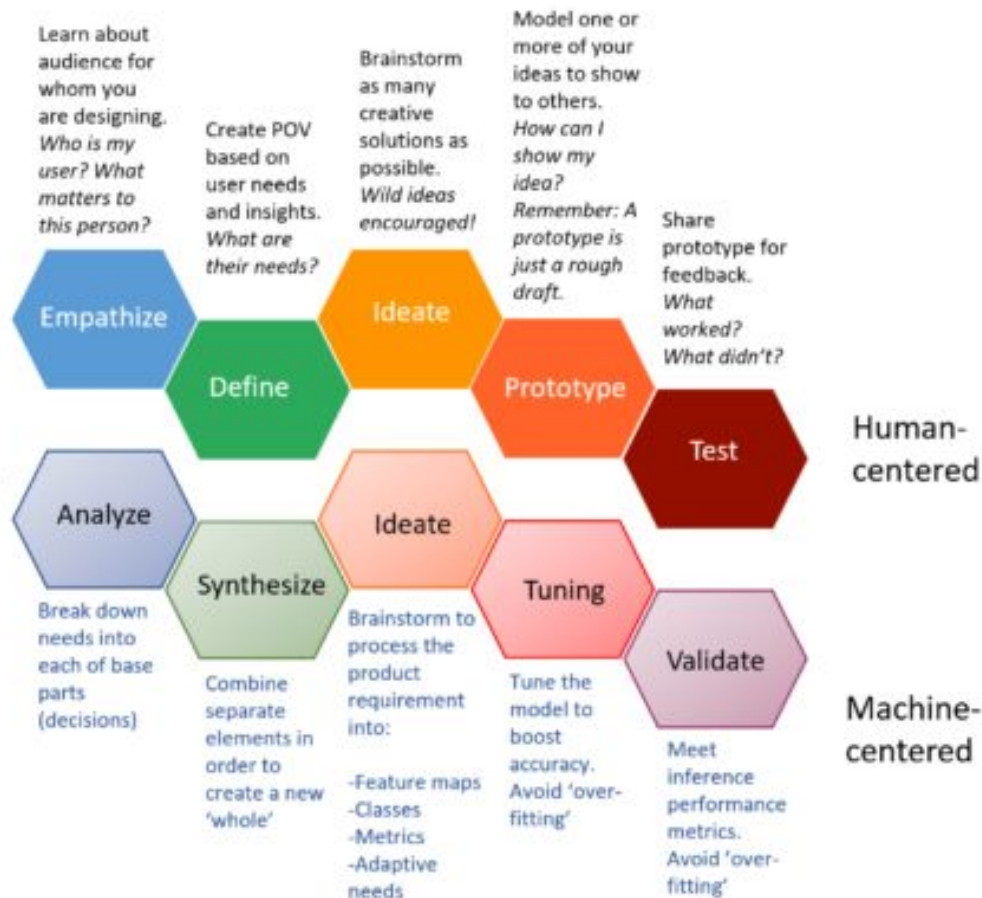
- Embrace Interdisciplinary TEAM atmosphere
- Re-align who OWNS Technological Innovation
- Partner Smart Employees with Smart Technology

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.



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.

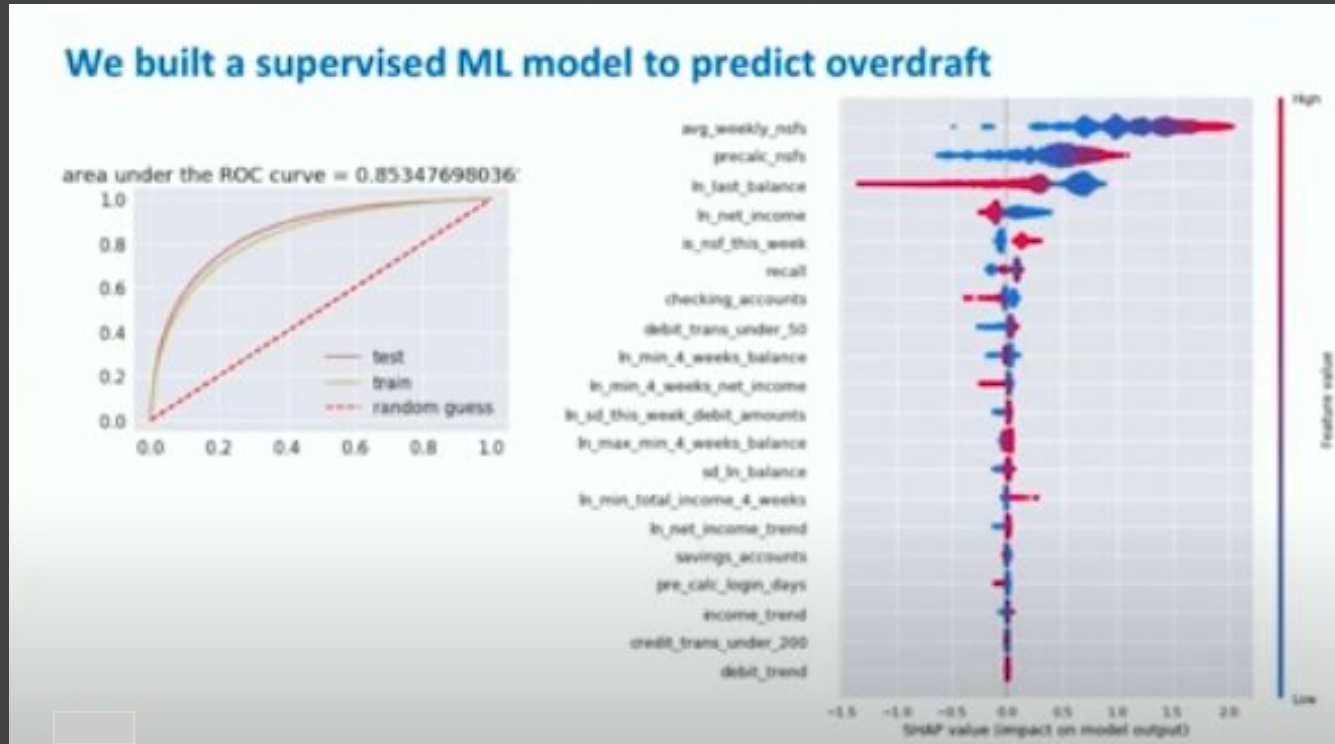
50% of those fees are for transactions totaling less than \$50.

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...

Before



Avoid overdrafting your Bank of America account by taking action

10 Minutes
Let us help you avoid overdrafting in the next few days in your Bank of America account. Overdrafting can leave your fees with an early penalty and it can become a dangerous spiral.

In the past, you paid \$35.00 in fees after overdrafting on Jan 27, 2018.

You can avoid overdrafting:


- If you have money in another account, transfer funds from there into checking.
- If you have a credit card with your balance, use that instead of debit card until your next paycheck.
- Call back on the next business day for a fee-free transfer.

Why don't get this email?
Based on your spending habits and history of overdrafts, our number one reason think you're a likely candidate to overdraft again soon. This is with a new feature, so you'll experience this too often.

Check how to avoid

Did you find this email useful?
YES / NO


After



Mint

Avoid Paying \$34.00 Fee

10 Minutes
Get notified that you might overdraft. Consider transferring money to your Chase Bank account, paying with credit card or postponing non-essential expenses. If we are too late, try asking your bank for a waiver.



Check how to avoid

Did you find this email useful?
YES / NO

Mint customers have saved nearly \$1M in overdraft fees over the past 12 months.

The overdraft prediction service sent more than 650K alerts to help users avoid paying non-sufficient funds fees.

● 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

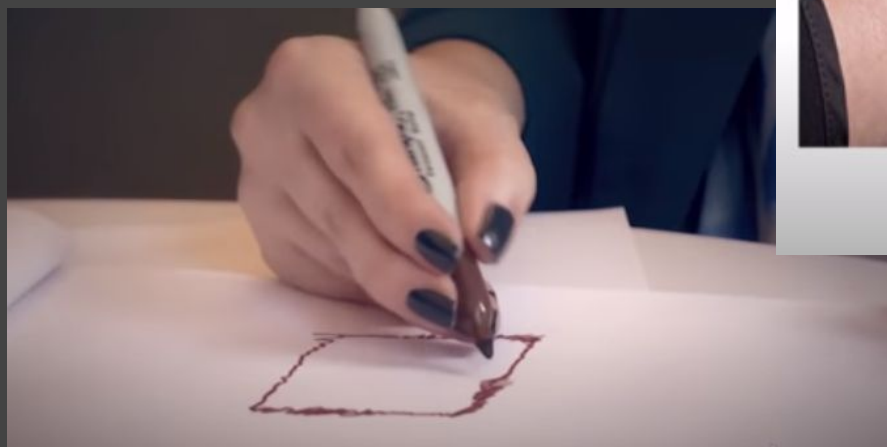
We used pattern mining to group business vs. personal trips

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 -

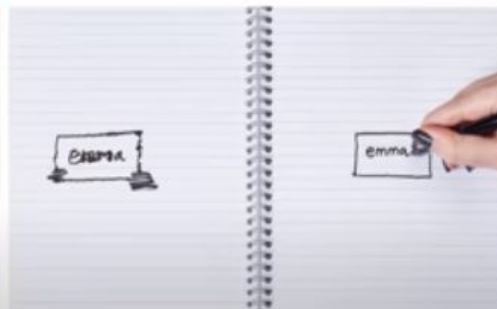




Emma



Final prototype



Writing samples

Innovating for Inclusion



Visual



Hearing



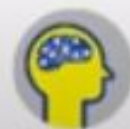
Cognitive



Speech



Mobility



Neural