

RIFFING ON ANALYTICS

The Music in Data Science

Leuven, May 2018



Thesis

Data science is a combination of art and science, just like music....



Crossroads



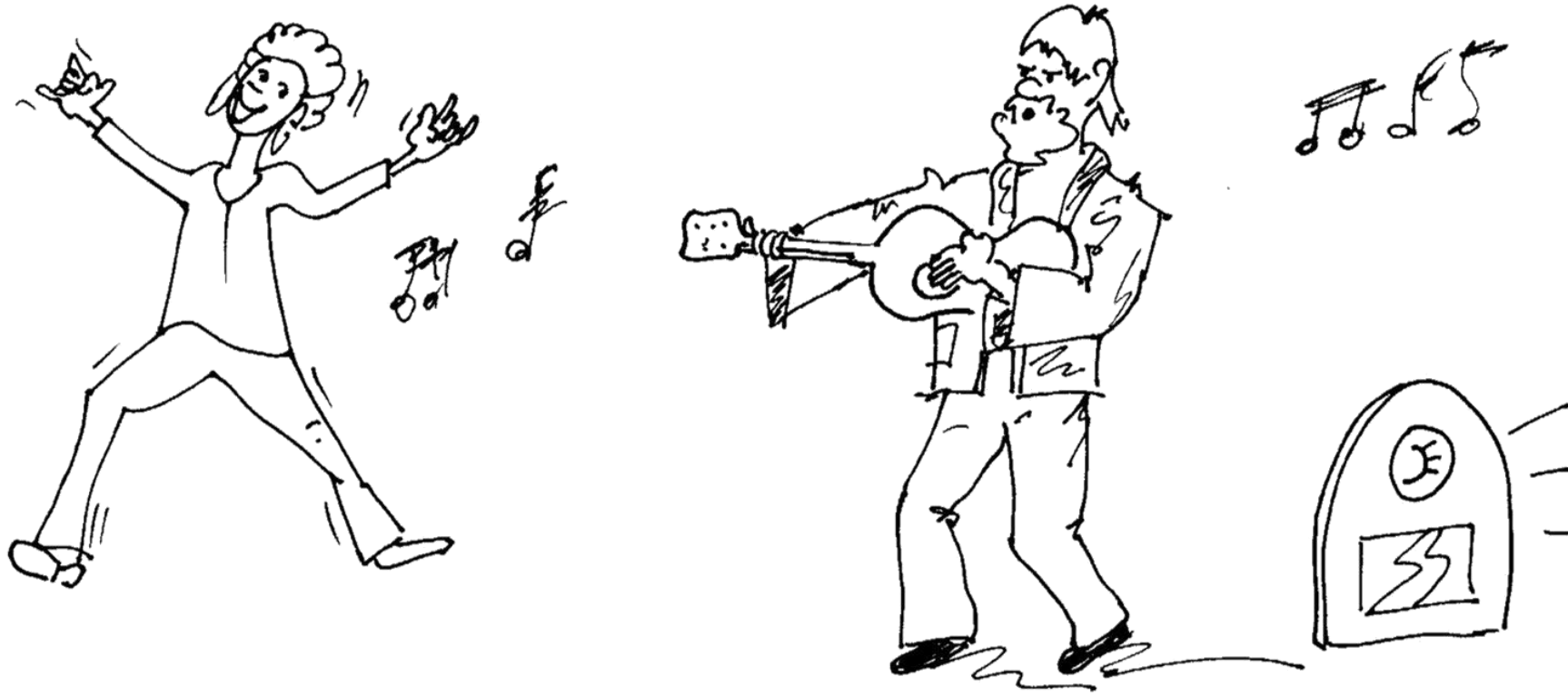
Genres



Your Project

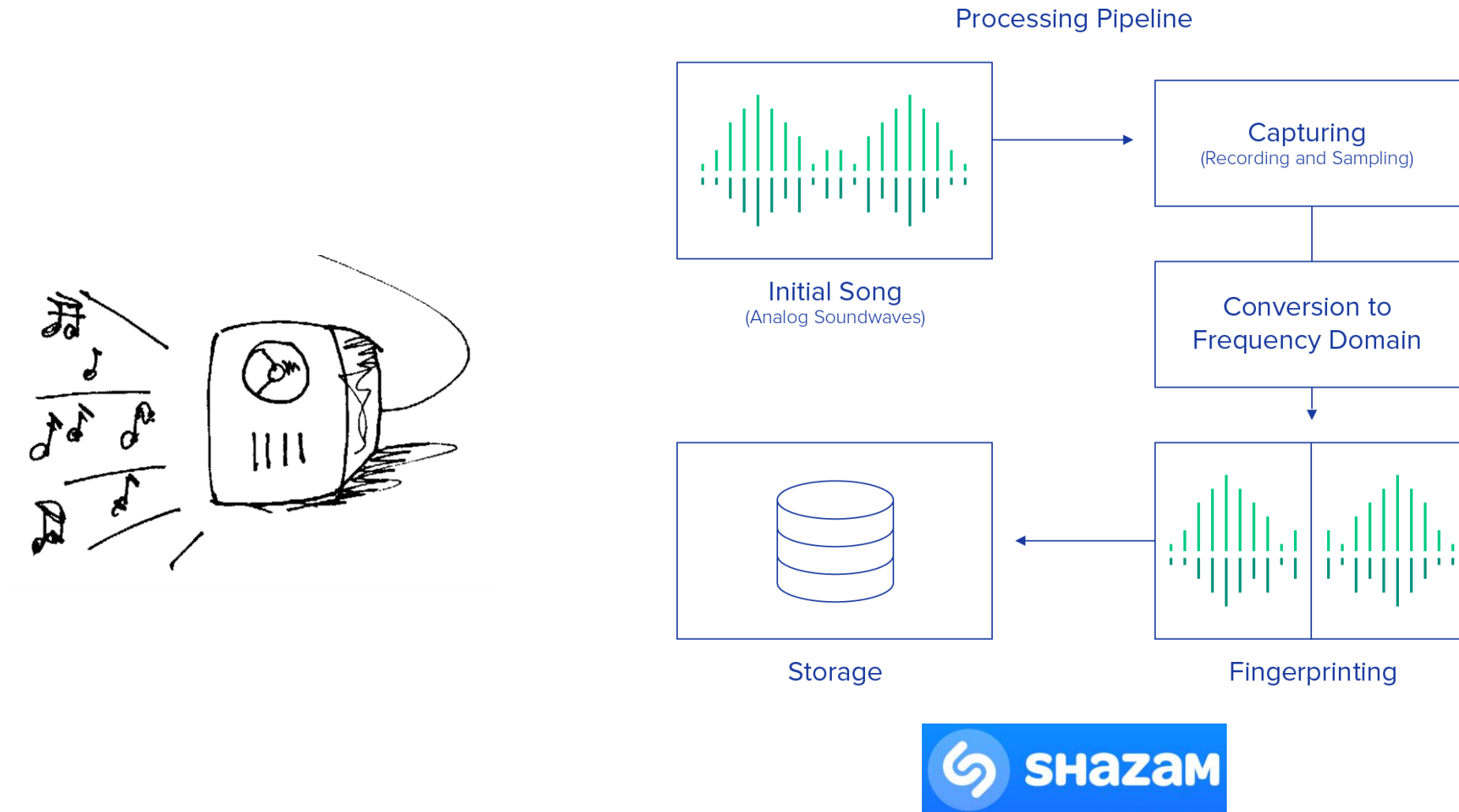
How our brain reacts to music

"...your brain **predicts** the reward that you'll feel from a given piece of music based on similar types of music you've heard before. If you like it better than predicted, it registers as **intense pleasure**..."



AI mimics basic human experiences to create augmented services

Song identification services like Shazam aim at **augmenting** our music experience by focusing on the parts where AI has the advances of massive databases and shared resources

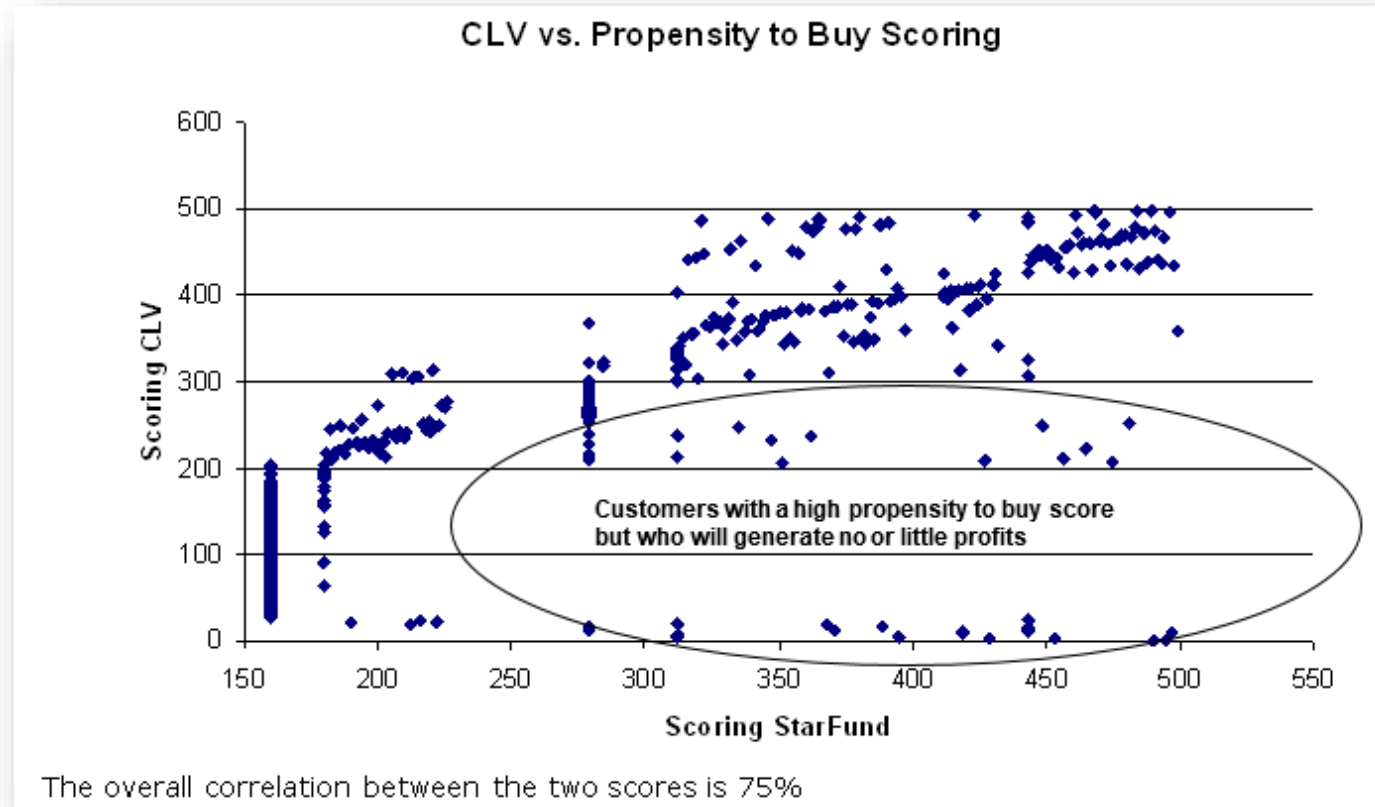




Dale Smith

Data Science to keep steady: Classical Music

Customer Lifetime Value Prediction in Banking



Data Science for setting the beat: R&B

Optimizing the location of fire stations



Current locations

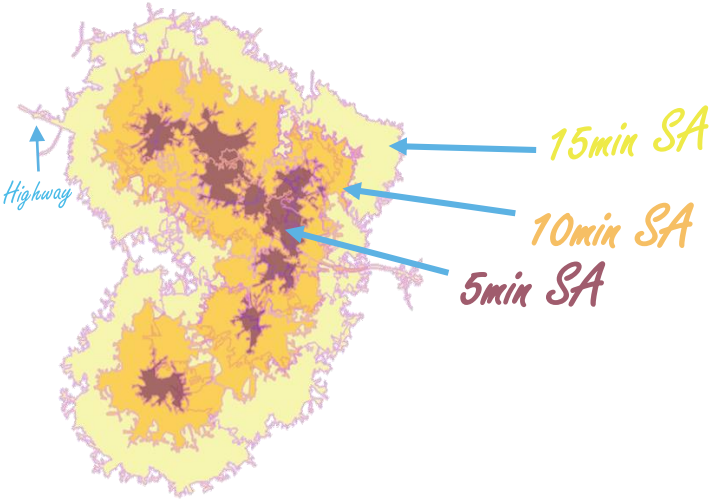
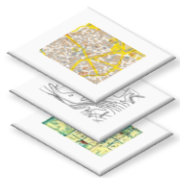
o_Total Minutes To late	Count_locations	o_Average minutes to late
592	9	2.19

Optimized Solution

o_Total Minutes To late	Count_locations	o_Average minutes to late
297	8	1.00

Faster response time

Less locations needed



Data Science as Innovation Engine: Electro

Bringing big insights to hospitals: Agfa Healthcare



92,000 professionals dedicated to patients and their families

- 22,000 physicians
- 51,000 paramedical professionals
- The Paris area's leading employer

Providing to the best medical care to all

Every year:

- 7 million patients
- 38,000 births
- Over 200,000 surgical procedures



1 + Add row

2 D_PATIENT 3 Include all items from left 4 F_PROCEDURE 5 Delete 6

F_PROCEDURE Only common items F_LAB Delete

F_PROCEDURE Include all items from left D_PATIENT Delete

7 Submit Query

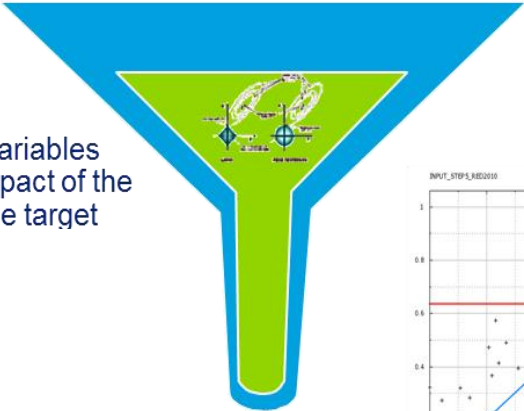
Data Science as common denominator: Pop

Understanding core drivers for the EU NGN Coverage

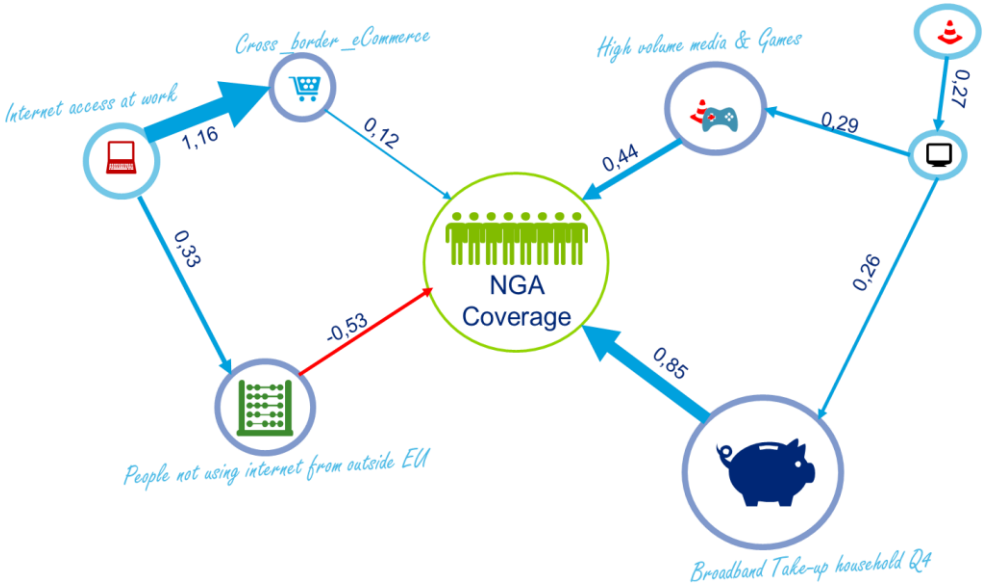
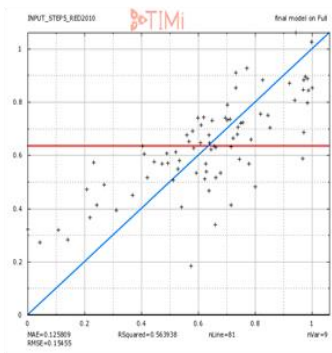


Let the data talk
1400+

Reduce the Variables
based on the impact of the
variable on the target



145



What about you?
Finding the music in your projects



Takeaway

We should think about data science like music



Many Goals



Many Paths



Room to jam

