



# FINANCIAL MODELLING

Presenter: Farhan Malik

ACCA Masterclass

# Hi

- Kind of “analysis folk”
- My First Webinar – so I have little butterflies in my stomach
- Data excites me
- Chronic procrastinator
  - (that’s why) I love Digitalization

# We will discuss

1. Data Modelling
2. Financial Modelling Ancient Ways
3. Modern Age Financial Modelling Approach
  - Conceptual
  - Stages
  - Tricks
  - Tools
4. Technology Market
5. What to do next

# Our Approach

- A bit of Theory – Sorry ☹ but important
- Why “Ancient Methods” are bound to fail
- Identify the Opportunity
- End to End Process
- Keep it creative
- Say No to Plagiarism
- Keep Calm



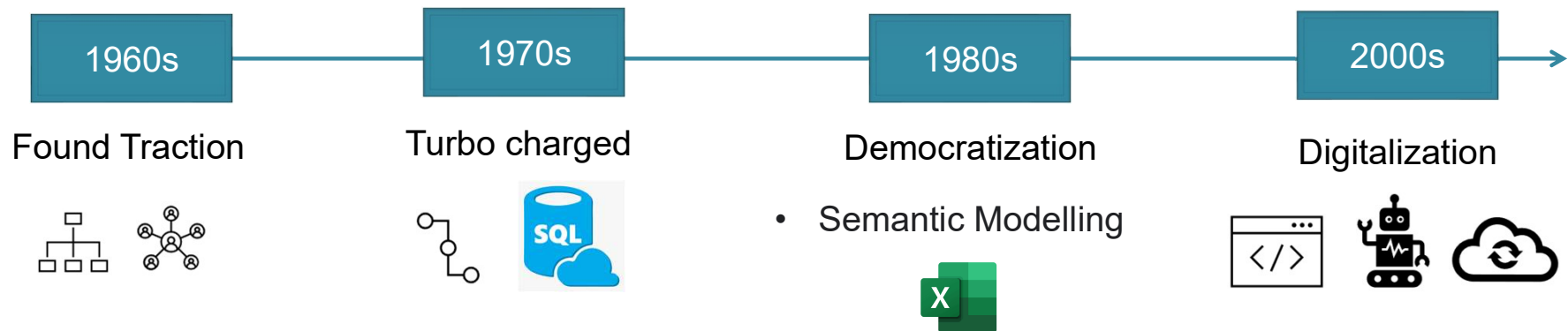
# Etymology & Historical Perspective

---

**Data** • Things known or assumed as facts, making the basis of reasoning or calculation

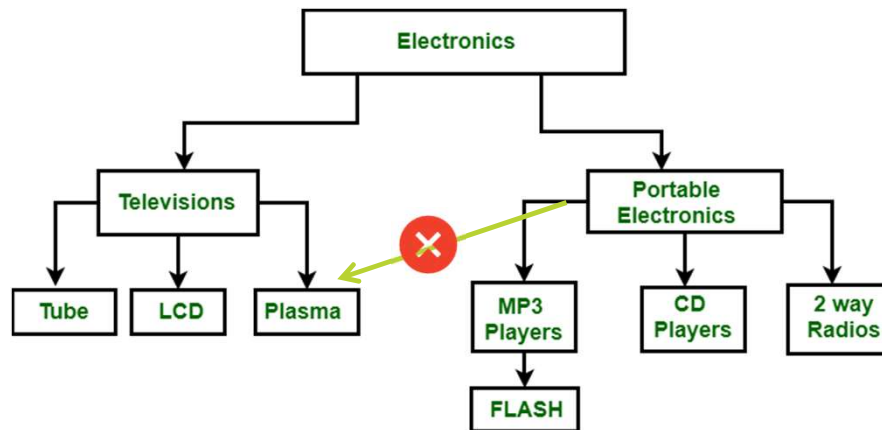
**Model** • A simplified description, especially a mathematical one, of a system or process, to assist calculations and predictions

## Data Model Key Milestones

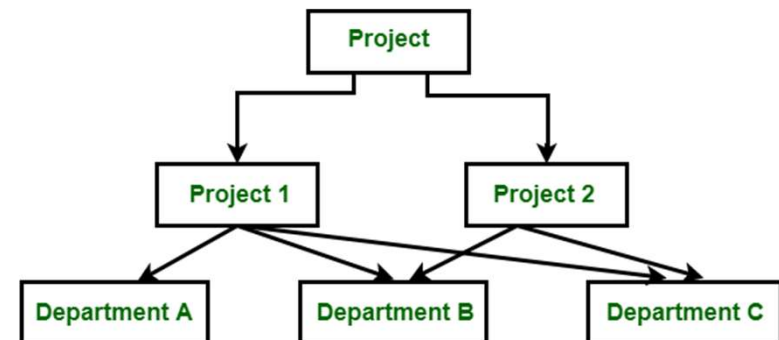


# How Data Modelling Thought Developed

Hierarchical Model



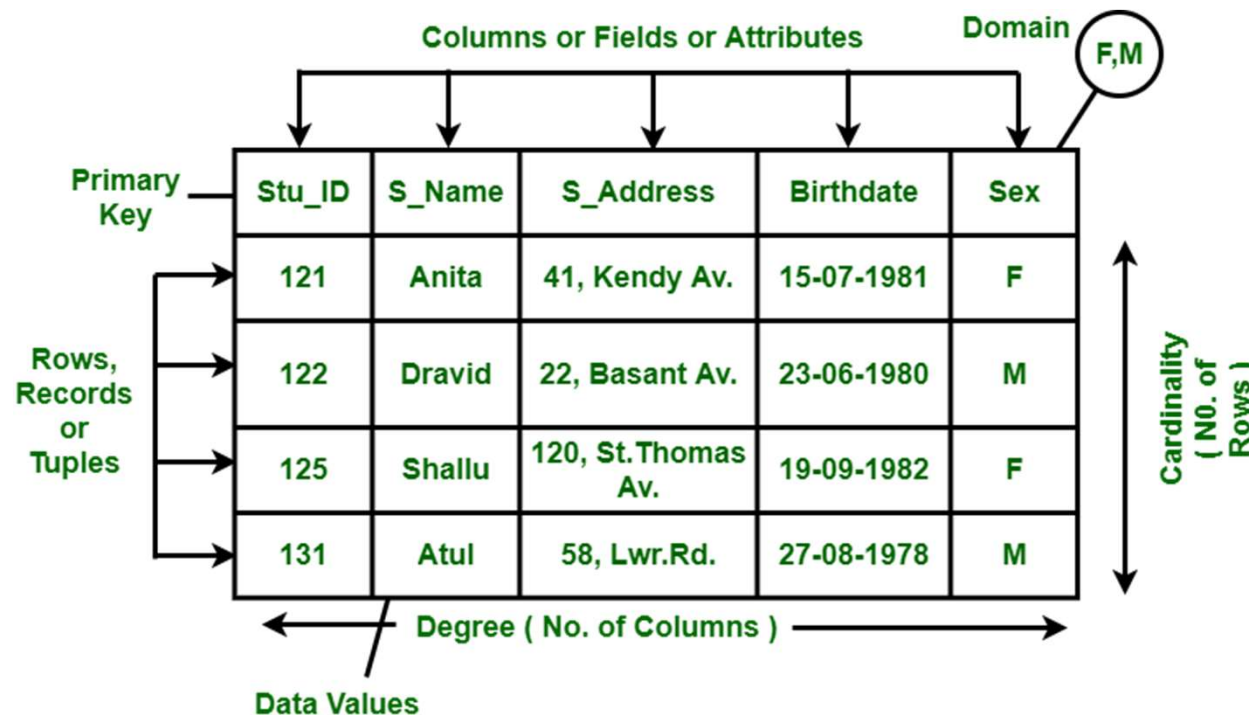
Network Model



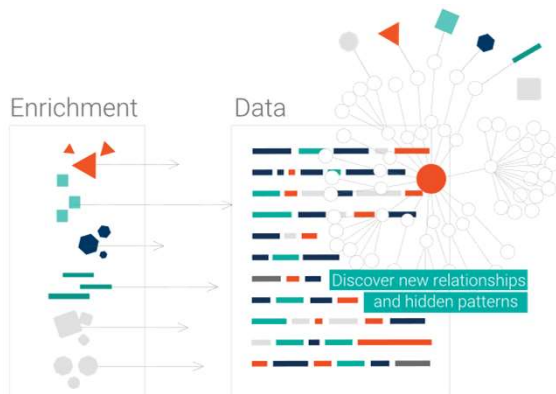
Credit: <https://www.geeksforgeeks.org/>

## Relational Data Models Dominate Market

- It organizes records in the form of table and relationship between tables are set using common fields
- Represent “Real World” objects and their relationship with each other
- Order out of Chaos
- Led to invention of SQL



Mark it



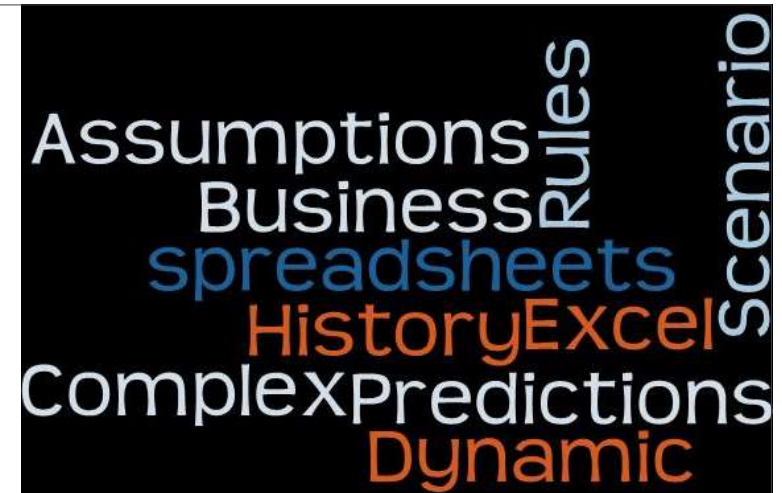
# ENRICHMENT OF SEMANTICS



Fact of the Matter

# FINANCIAL MODELLING ? LET'S GOOGLE IT...

Financial Modelling



Financial modelling

160,000,000 results (0.56 seconds)

online.hbs.edu/

**Harvard Business School Online - Online Finance Course**

like and communicate smarter **financial** decisions. Apply for free online today! Gain an **afflitive** understanding of **finance** and be a more effective business leader.

**Online Course Catalog**  
Find the right course for you!  
Options for all career levels.

**Course Platform**  
Edge-of-your-seat learning.  
Designed to keep you engaged.

**Student Stories**  
Utilize course feedback from past students from around the world!

**Request More Information**  
Want to know more?  
We would love to hear from you!

**Financial modeling**

Financial modeling is the task of building an abstract representation of a real world financial situation. This is a mathematical model designed to represent the performance of a financial asset or portfolio of a business, project, or any other investment. Wikipedia

Types

Importance

Start

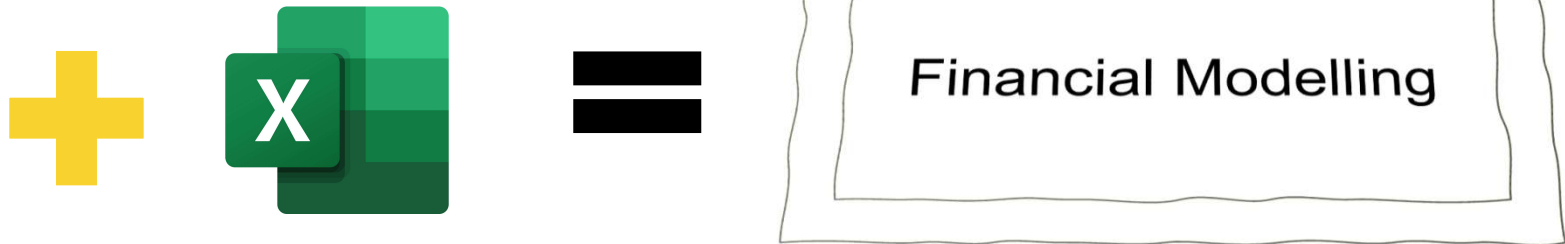
Advantages

# Old Formula & New (then) Friend ; Made History

---



Calculations & **SEMANTICS** in  
Spreadsheets



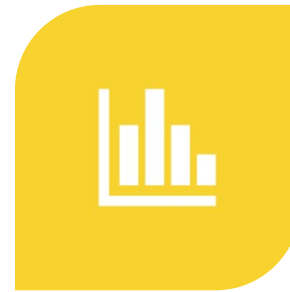
# Ahead of its Time



FINANCIAL  
MODEL



ENTERPRISE  
DATA MODEL



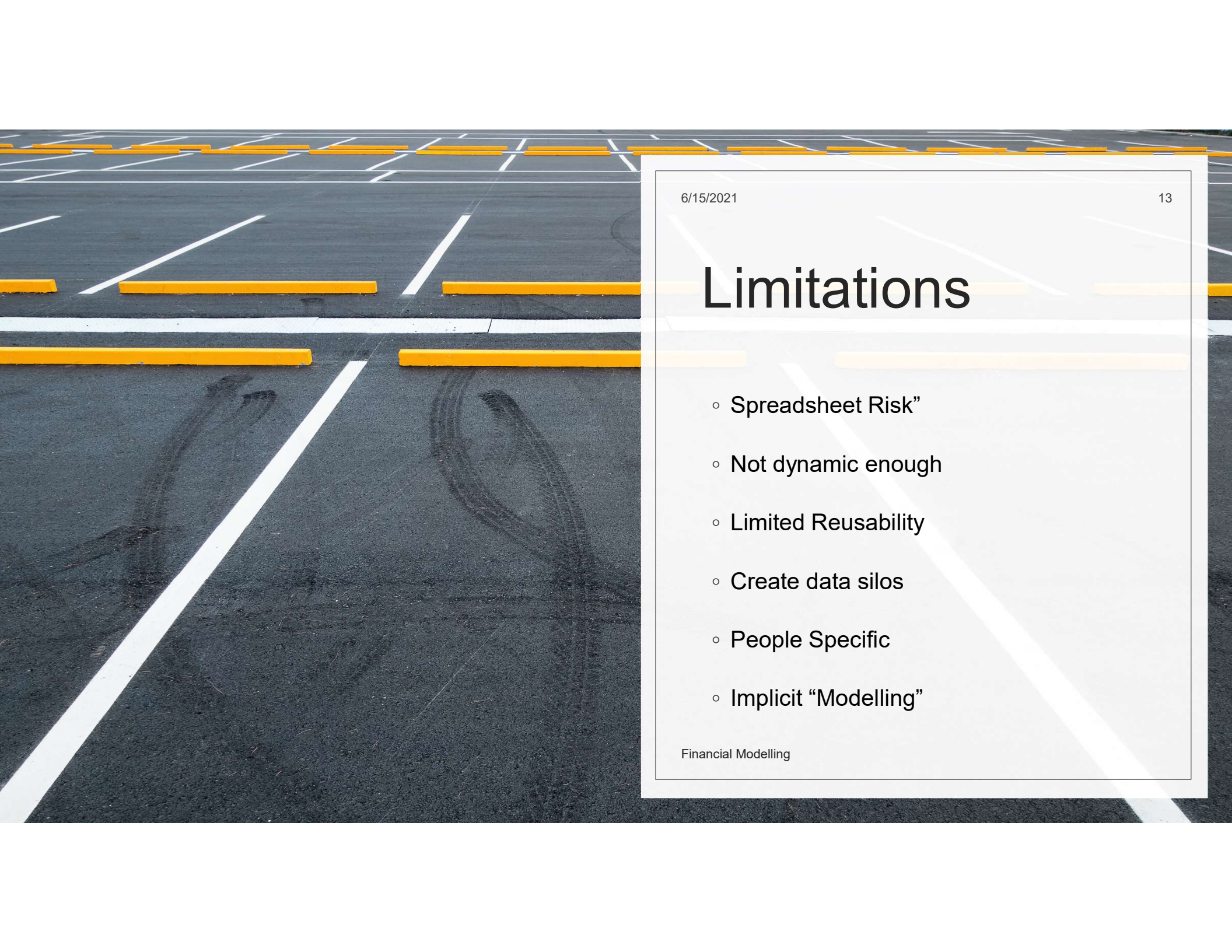
DATA

# Example “Ancient” Financial Modelling

---



Microsoft Excel  
Worksheet



6/15/2021

13

# Limitations

- Spreadsheet Risk”
- Not dynamic enough
- Limited Reusability
- Create data silos
- People Specific
- Implicit “Modelling”

Financial Modelling

# My Take

- Leave “spreadsheet file linking method” as of yesterday
- Follow these simple steps
  - Setup dynamic interfaces with data sources (Query Method)
  - Perform ETL (Normalization/Denormalization)
  - Design your data model on “Star Schema” – 99.9% of times
- Be Technology Agnostic
- Digitalize your model



Query Method

# ACTION TIME

Financial Modelling

15

# Recap on ETL

- Select your “Go To” data shaping environment
- Power Query makes complex transformational tasks easy to execute with Drag & Drop menu
- It is advisable to have a functioning understanding of “M Language”
- Defining data type is important semantic information your ETL tool needs to have
- Calculations are possible & supported in “M Language”
- Closest function in Google Sheets is “Query” function – but its command line based & runs SQL



# Recap on Modelling

- Design is everything
- Star Schema is your friend
- Access Data using an appropriate language
- Keep it modular

# DAX



An abstract graphic featuring a complex network of white lines and dots on a dark blue background. The lines and dots are concentrated on the right side of the image, creating a sense of depth and connectivity. The word "DIGITIZE" is centered in the middle of the image.

# DIGITIZE

A stack of four brown cardboard boxes of varying sizes, arranged in a slightly irregular manner. The boxes are made of standard corrugated cardboard and have some tape visible on their seams. They are set against a plain, light-colored background.

6/15/2021

20

# Final Thoughts

- Mindset Shift
- Finance & Data Science – More Powerful Together
- Analytics are being Democratized – Drag & Drop
- Discover Elegant Solutions
- Meditate

Financial Modelling