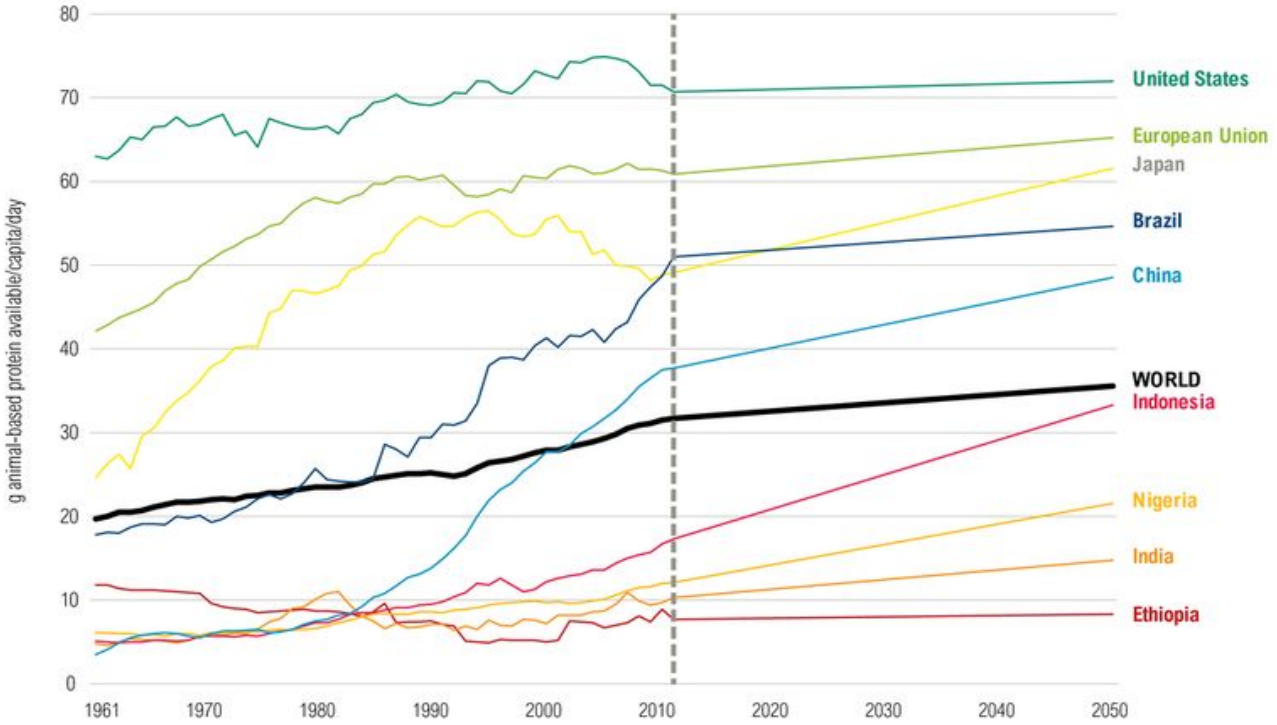
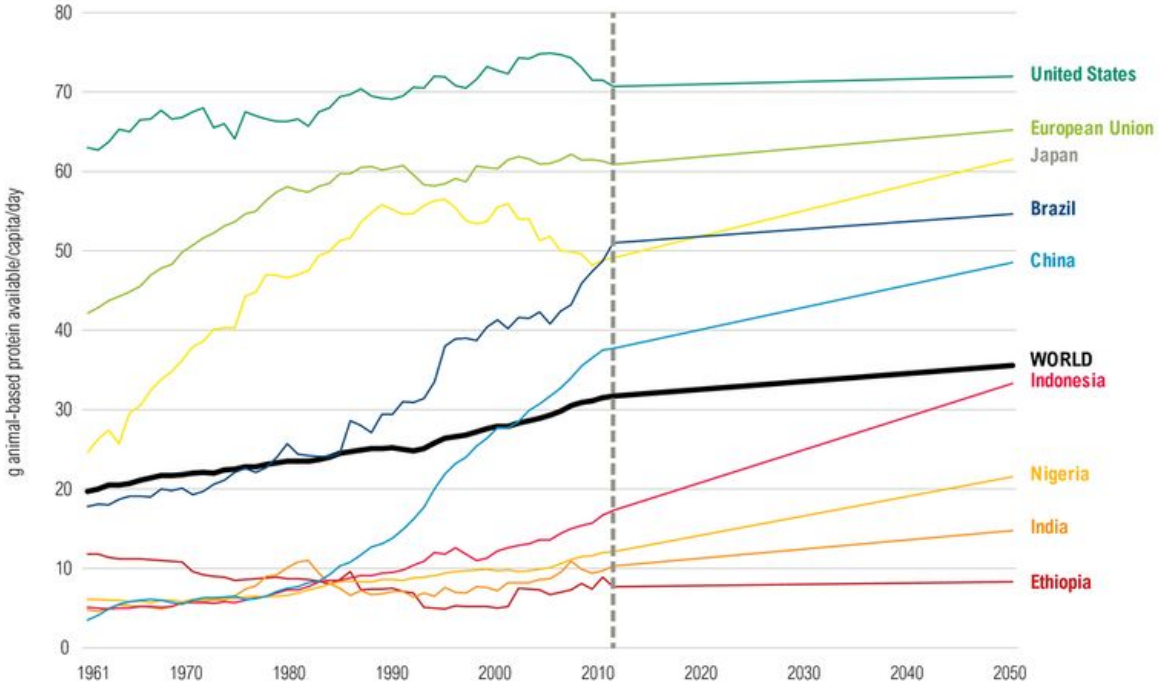
Adding Narrative to BI Dashboards with Natural Language Generation



wri.org/shiftingdiets

WORLD RESOURCES INSTITUTE

“People are consuming more animal-based proteins.”



Natural Language Generation
Conversational Interfaces
Data to Text

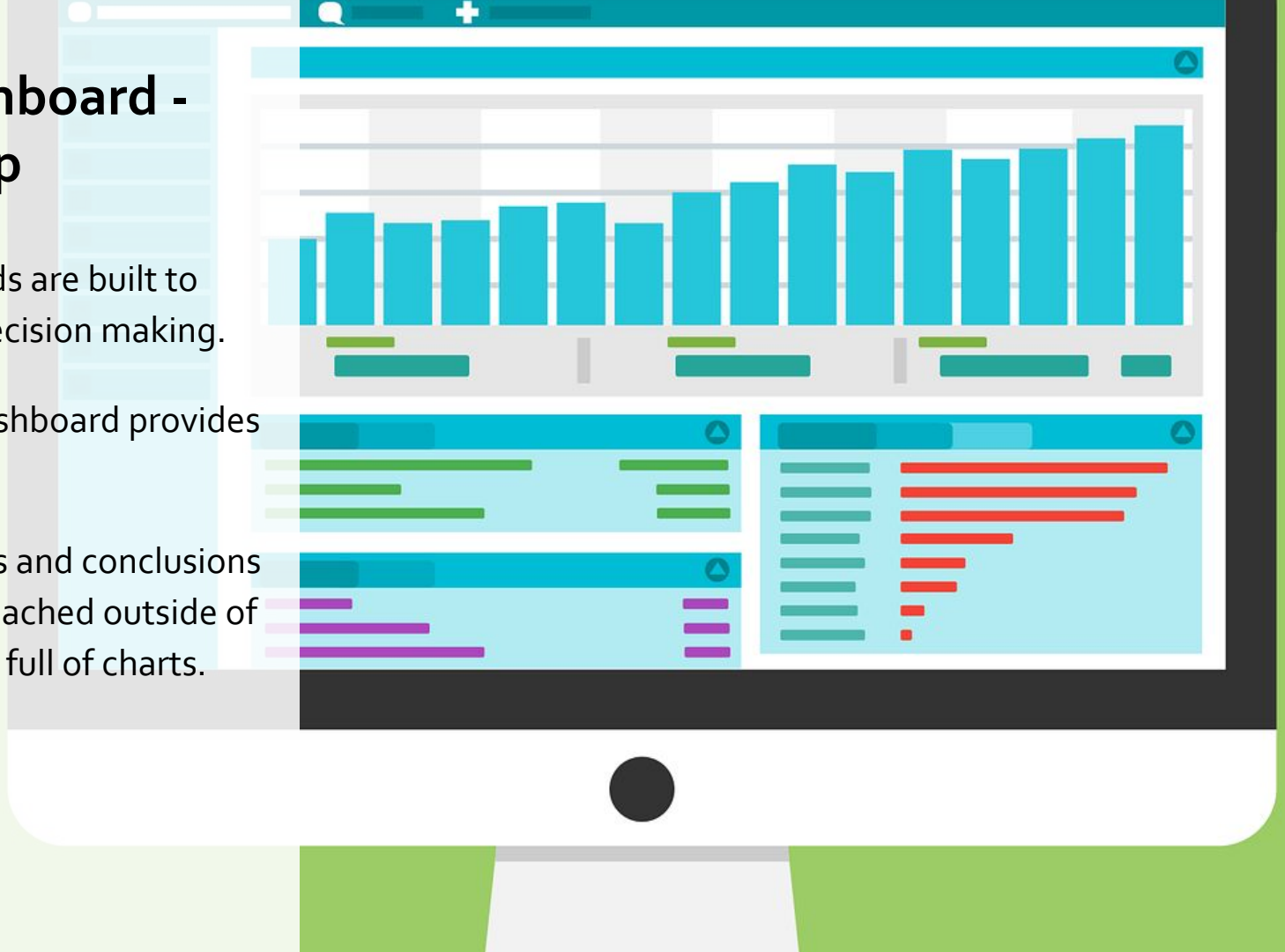
BARENTS SEA
North Cape
71°N
Mehamn
Berlevåg
Havøysund
Kjøllefjord
Honningsvåg
Hammerfest
Båtsfjord
Vardø
Vadsø
Kirkenes
Skjervøy
Øksfjord
Lyngenfjord
Tromsø
Finnsnes
Risøyhamn
Sortland
Harstad
Stokmarknes
VESTERÅLEN
Lofoten
Trollfjord
Stamsund
Svolvær
Bodø
Ørnes
66°33'N ARCTIC CIRCLE
Nesna
Sandnessjøen
COAST OF HELGELAND
The Seven Sisters
Brønnøysund
Rørvik
ATLANTIC OCEAN
Trondheim
Kristiansund
Molde
Ålesund
Torvik
Geirangerfjord
Måløy
Hjørundfjord
Florø
THE WEST COAST
NORWAY
Bergen

BI dashboard - the gap

Dashboards are built to support decision making.

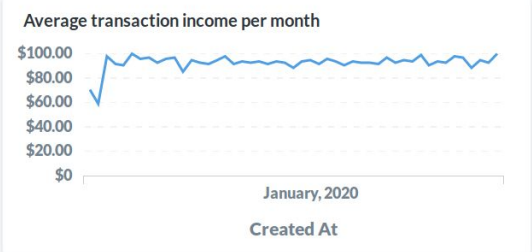
Yet the dashboard provides data only.

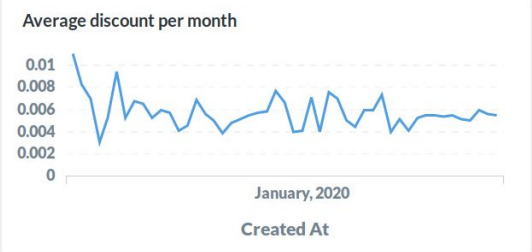
The causes and conclusions must be reached outside of the screen full of charts.



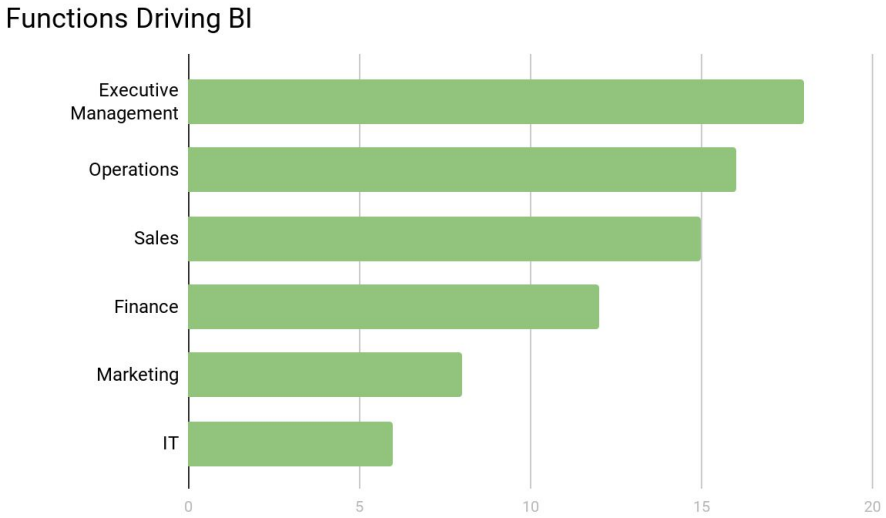
Metabase BI dashboard

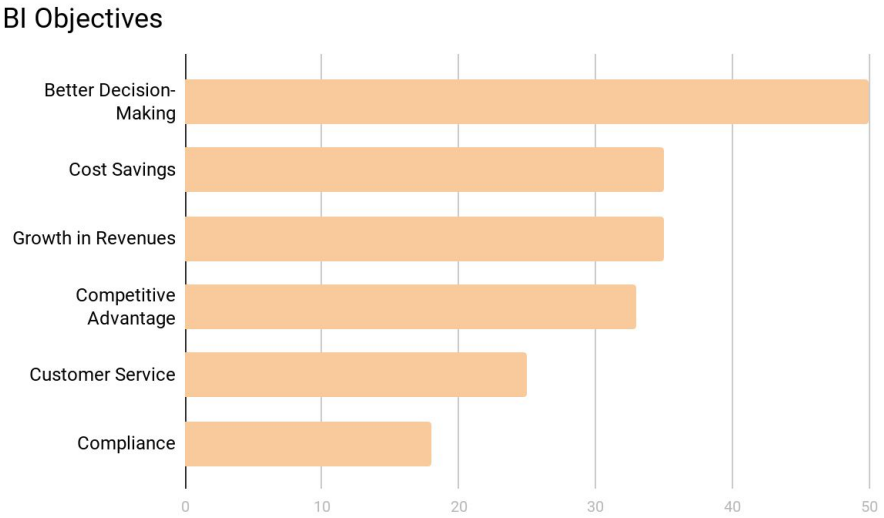
How these transactions are distributed





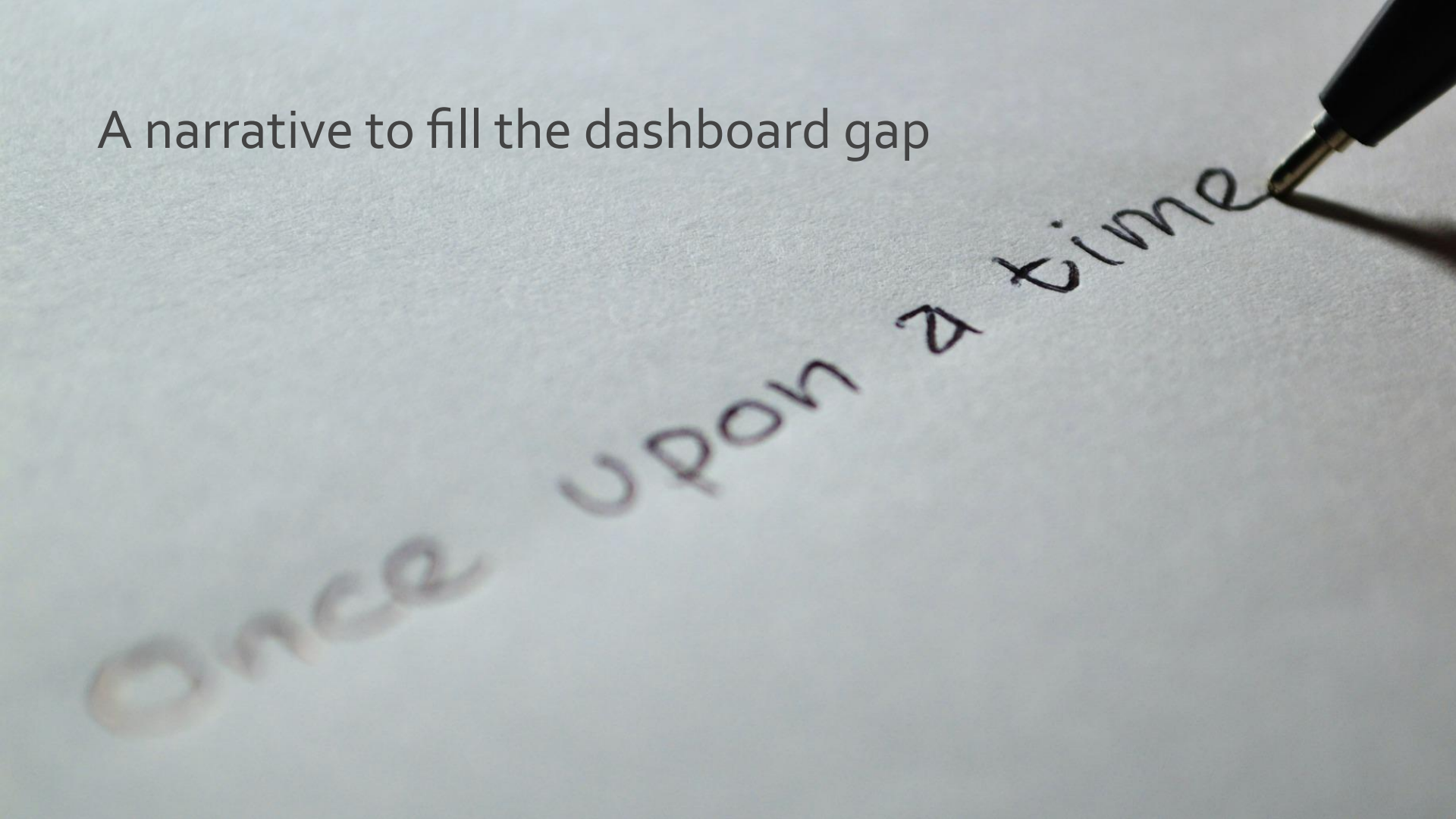
BI tools adoption rate in companies - 51%



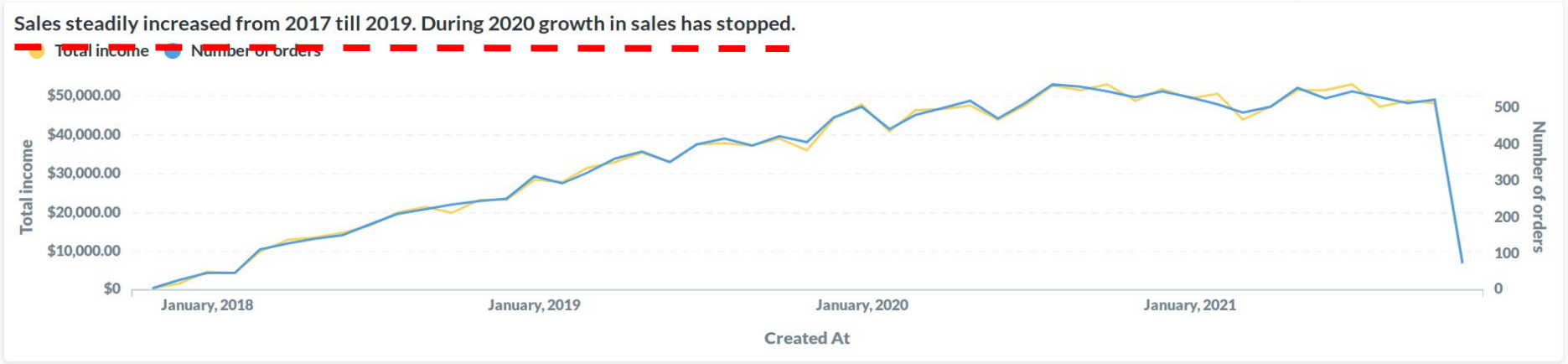


- *Forbes: The State Of Business Intelligence, 2018*
- *Grid® Report for Business Intelligence Platforms | Spring 2018*

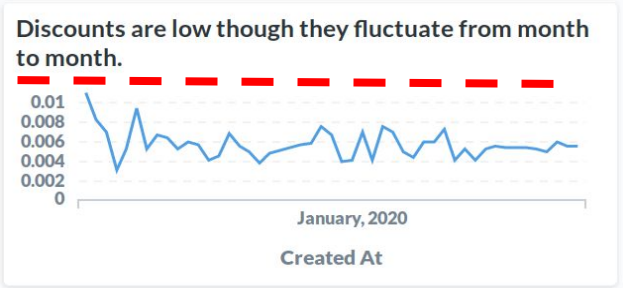
A narrative to fill the dashboard gap

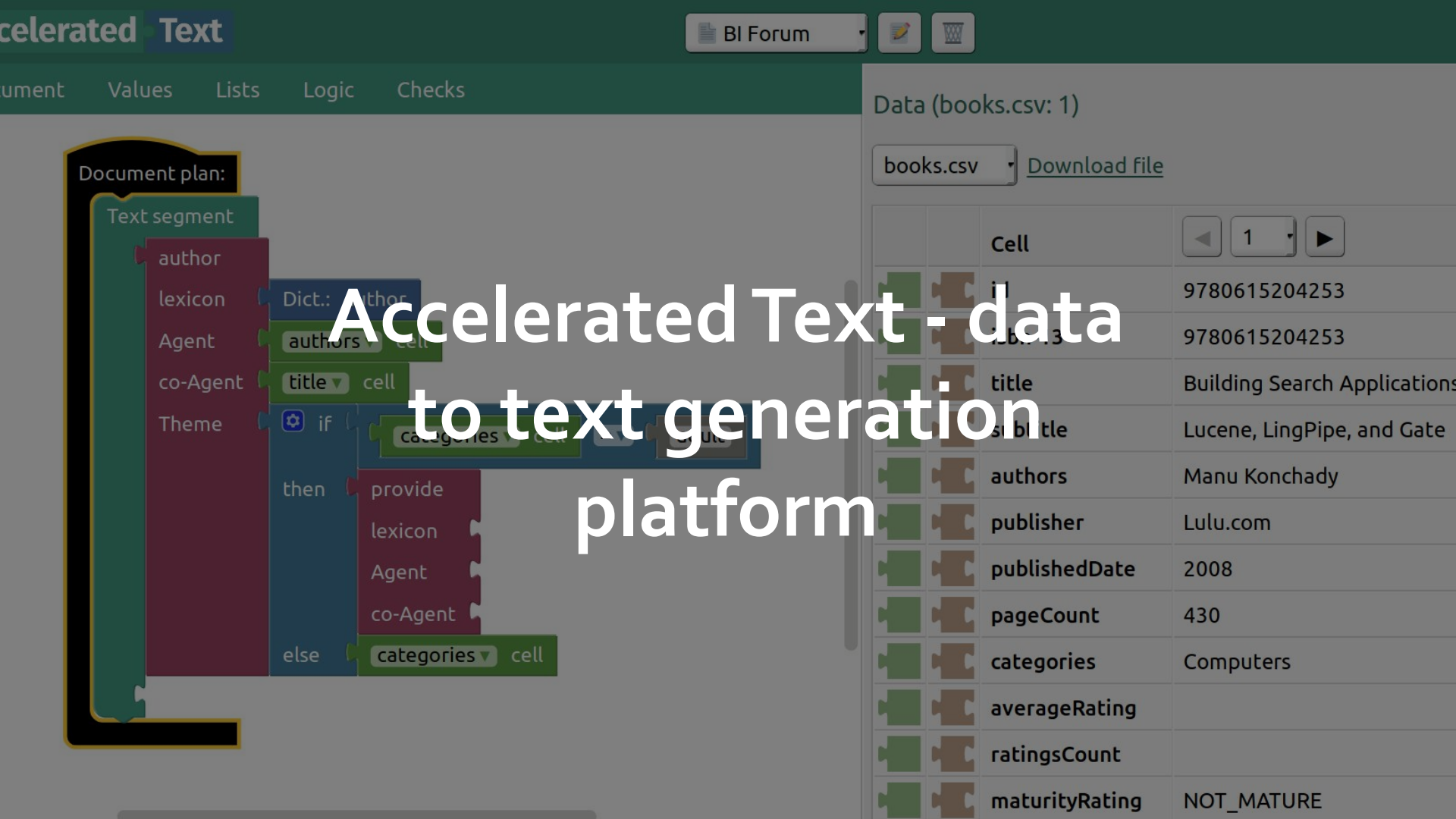


A dashboard with the narrative



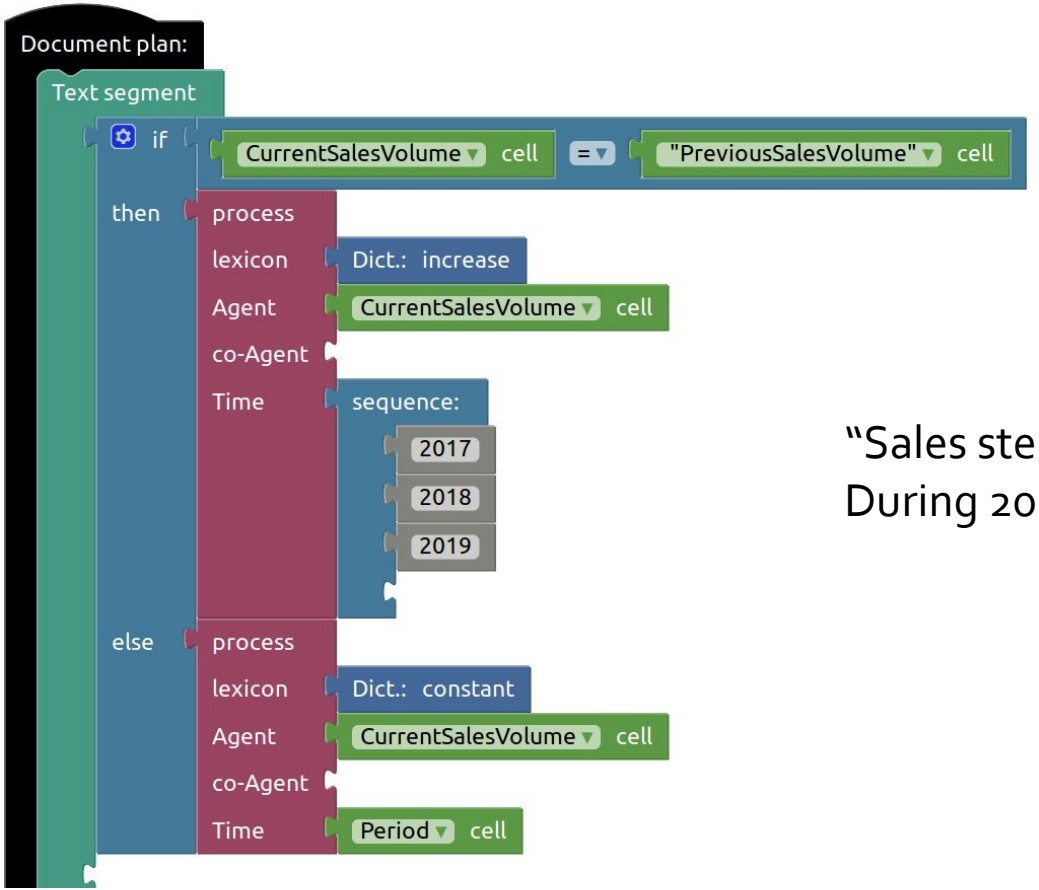
How these transactions are distributed





Accelerated Text - data to text generation platform

How does it work?



"Sales steadily increased from 2017 to 2019. During 2020 growth in sales has stopped…"

The missing part

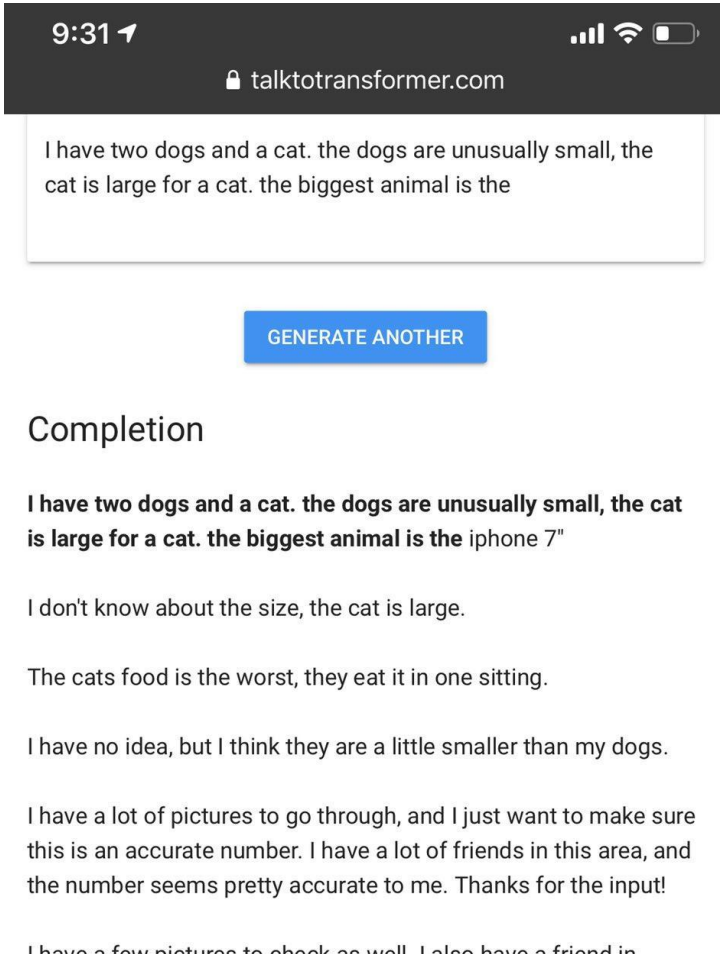
NLG engine can not know what to tell. There has to be a reasoning (data science) component attached to tell it what is important. What needs to be communicated.

Photo by David Clode

Accelerated Text philosophy

Data descriptions require precision. We can only state what follows from the data and is available in a broader knowledge base of the domain.

You can not trust a transformer to explain your business data to you.



Other applications

- product descriptions
- data analysis reports
- personalised communication with customers
- device maintenance reports
- and more

NLG benefits for BI

- Consistent logic and structure facilitate quicker comprehension, thus leading to quicker action
- Analysts do not have to engage in laborious and repetitive data analysis tasks
- The reports are prepared faster and their range is increased
- Automated text generation allows to scale available analytic resources

Thank you

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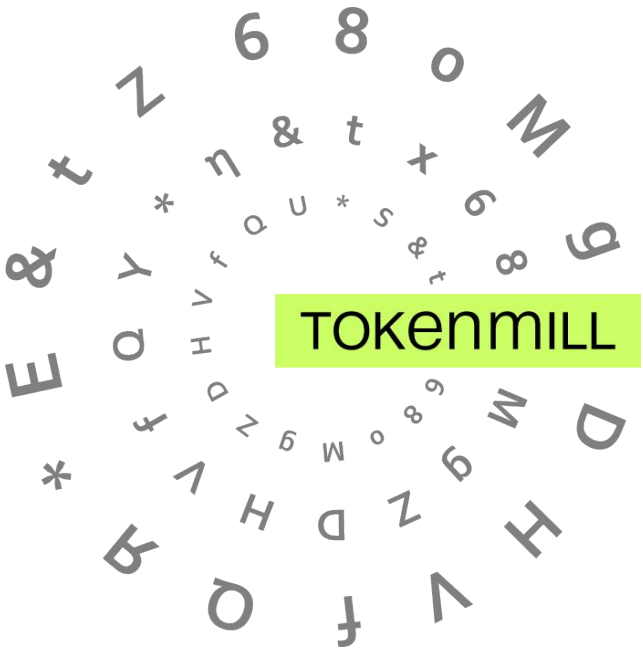

Accelerated Text - https://github.com/tokenmill/accelerated-text