



Annotated Bibliography for Get ResponsLive Presentation on Super 6 for Learning Power BI

February 22, 2024



Brian Julius (He/Him) • You

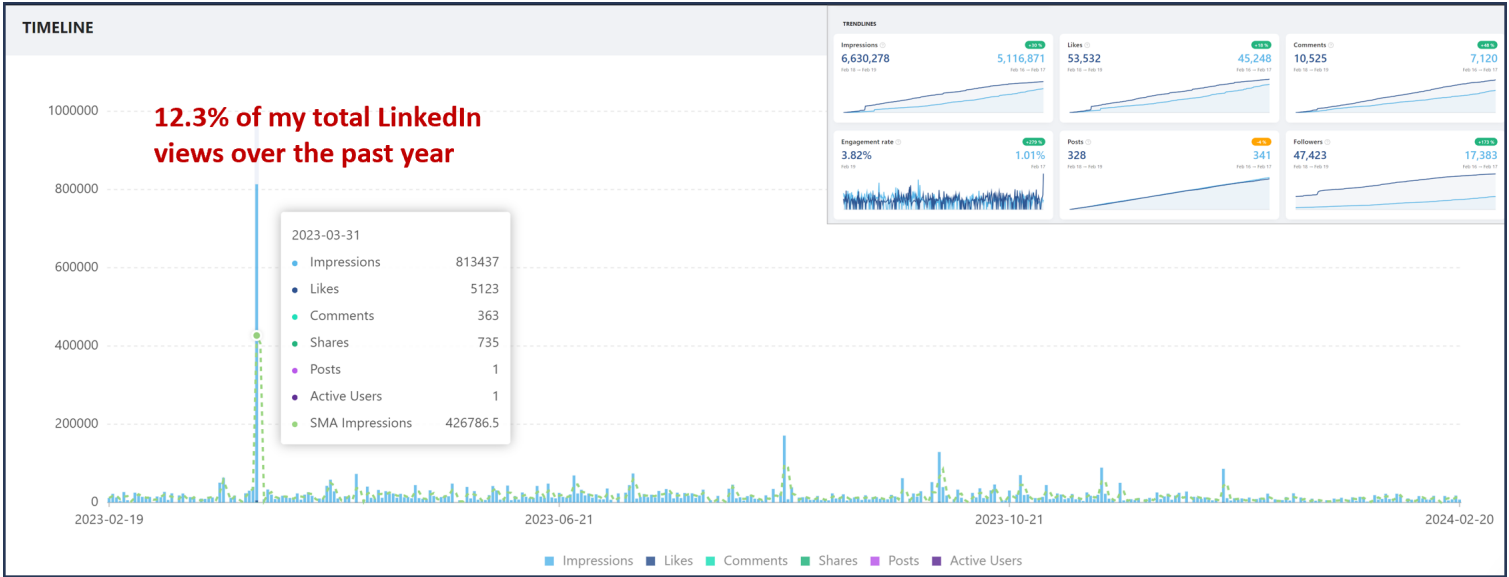
6x LinkedIn Top Voice | Lifelong Data Geek | IBCS Certified Data Analyst | ...

11mo • Edited • 

I think it's possible to become extremely proficient in Power BI in a very short time, but ONLY if you concentrate on the right things. Here are my Power BI "Super Six" areas in which to focus your efforts for the highest payoff:

1. Learn to Build a Star Schema Data Model

Original Super 6 Post
<https://bit.ly/PowerBISuperSix>



My LinkedIn Shield statistics for the past year - Super Six post outlier

Motivation for post:

How to become a Data Scientist



Source: Alexis Veras

How to Become a Data Scientist 2023

<https://www.linkedin.com/pulse/how-become-data-scientist-2023-alexis-veras/>



Power BI: Business Intelligence Dashboards, Analysis for An...



Shailna P. • 2nd

1w •

Which programming language is the 🐍 Power BI champ?

The author can see how you vote. [Learn more](#)



Python

23%



DAX

69%



M

4%



R

3%

1,584 votes • Poll closed • [Remove vote](#)

WHY ALL THE CRYING ABOUT DAX?

Learning
DAX

Basic DAX
starts making
sense

Learning
Advanced
DAX



You and 949 others

75 comments • 22 shares

Source: Carlos Barboza

Question: Is there a better way to learn Power BI?

What areas of study have had the highest ROI for me?

How has learning changed Power BI changed since I posted this 11 months ago? - role of AI and uncertain place new Visual Calculations will play in future Power BI ecosystem

SUPER 6 LEARNING AREAS

◆ **Learn to Build a Star Schema Data Model**

Everything in Power BI is optimized for star schema. If you build your analysis and reporting on the foundation of a solid data model, everything else will fall into place smoothly. Build on a broken data model and you're pretty much sunk right out of the starting gate...

◆ **Star Schema - The Power BI Ideal - In Just One Slide**

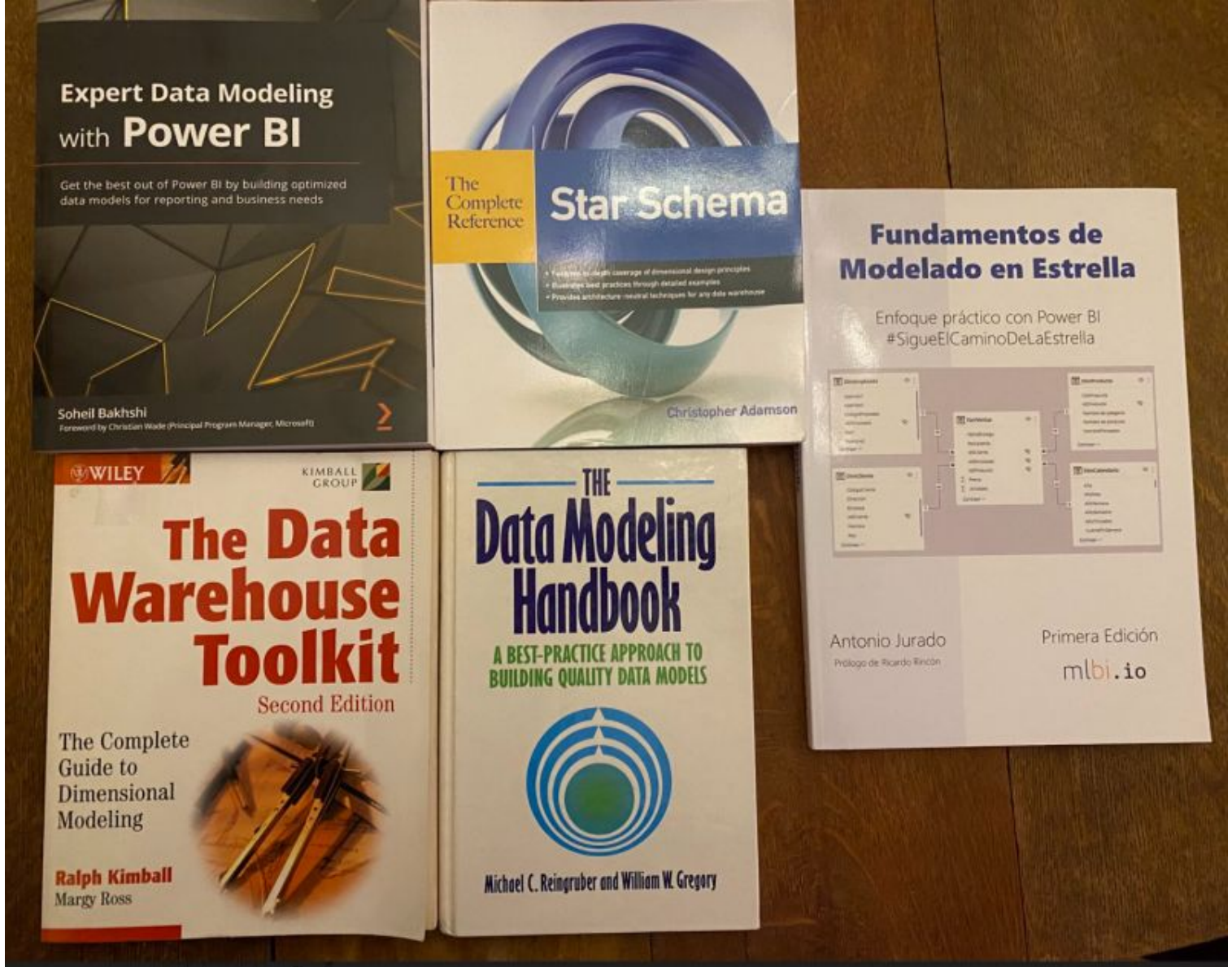
bit.ly/starschemapost

◆ **Understand Star Schema and the Importance for Power BI (Microsoft)**

<https://learn.microsoft.com/en-us/power-bi/guidance/star-schema>

My Recommended Data Modeling Resources

<https://bit.ly/Datamodeling>



NEW ChatGPT4 ADA is an Expert Data Modeling Advisor

<https://bit.ly/ExpertDataModelingAdvisor>

◆ **Learn and Apply Roche's Maxim**

By pushing your data transformations up to the proper level, you will dramatically simplify every aspect of your report development, your reports will run faster, be easier to maintain, and be more transparent.

◆ **Roche's Maxim of Data Transformation**

<https://ssbipolar.com/2021/05/31/roches-maxim/>

Roche's Maxim of Data Transformation^[2] states:

” *Data should be transformed as far upstream as possible, and as far downstream as necessary.*

In this context “upstream” means closer to where the data is originally produced, and “downstream” means closer to where the data is consumed.

NEW Where Do You Add That New Column in any Analytics Tool? (Guy in a Cube)

<https://www.youtube.com/watch?v=OAlys79j81Q>

NEW Power Query M vs SQL: A Balanced Perspective (Rick de Groot)

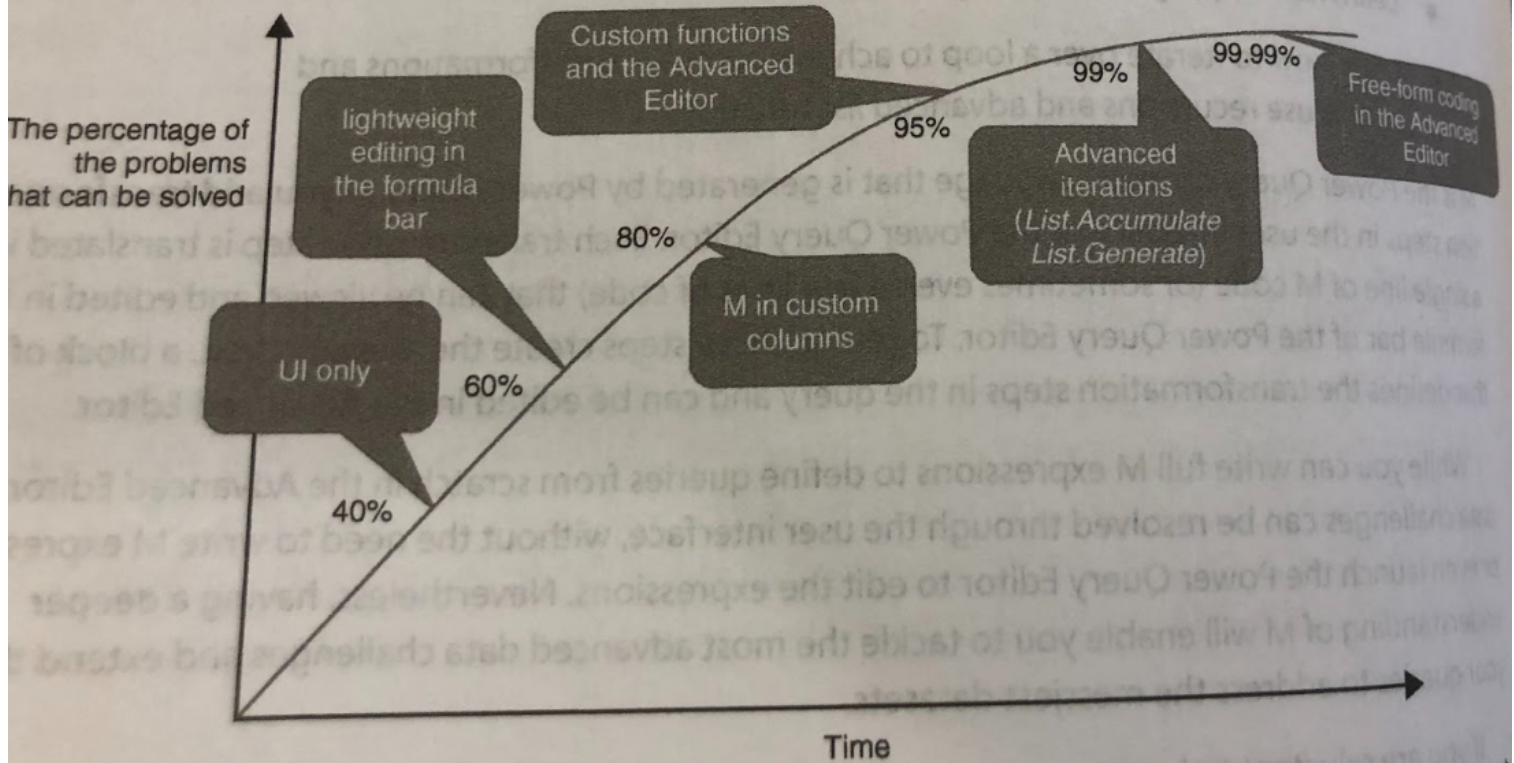
<https://gorilla.bi/power-query/power-query-vs-sql/>

◆ Master Basic Power Query Transformations

#PowerQuery is a phenomenal tool for cleaning and shaping your data, striking a fantastic balance between power and usability. [Gil Raviv](#), one of the top authorities on PQ, estimates that nearly 2/3 of data challenges can be solved using just the PQ UI and some lightweight formula editing.

Learning Maturity Stages

If you embark on the journey to learn M, you are likely to move through six maturity stages, as illustrated in Figure 9-1. Each stage enables you to resolve new types of data challenges but may keep you locked in a particular comfort zone. Will you be willing to invest significant effort to proceed to the next stage?



Source: Gil Raviv: Collect, Combine and Transform Your Data with Power Query

NEW # What is Power Query: A Beginner's Guide 2024 (Rick de Groot)

<https://gorilla.bi/power-query/beginners-guide/>

NEW PQ How (Rick de Groot)

<https://powerquery.how/>

NEW PQ Today's Menu (Melissa De Korte)

<https://bit.ly/PQTodaysMenu>

NEW Regular Power Query/M Challenges (Ascending Order of Difficulty)

- ◆ Oz du Soleil - <https://bit.ly/OzDuSoleilPQ>
- ◆ Crispo Mwangi - <https://bit.ly/CrispoMwangiPQ>

- ◆ Owen Price - <https://bit.ly/OwenPricePQ>
- ◆ Excel BI (Vijay Verma) - <https://bit.ly/ExcelBIChallengePQ>

◆ Learn the DAX Functions that Matter Most

There are over 350 #DAX functions, but I strongly believe the Pareto principle holds here, and that you can garner well more than 80 percent of the benefits of DAX by concentrating on less than 20% of the functions. Focus your attention on table functions, iterator ("X") functions, and use of variables.



Pareto DAX Power BI Report - Brian Julius and Gustaw Dudek

<https://bit.ly/ParetoDAXReport>

NEW The Pareto Approach to DAX - My Top 20 Percent of DAX Functions

<https://bit.ly/ParetoDAX>

Row	0	1	2	3	4	5	6	7	8	9
0	ABS	ACCRINT	ACCRINTM	ACOS	ACOSH	ACOT	ACOTH	ADDCOLUMNS	ADDMISSINGITEMS	ALL
1	ALLCROSSFILTERED	ALLEXCEPT	ALLNOBLANKROW	ALLSELECTED	AMORDEGRC	AMORLINC	AND	APPROXIMATEDISTINCTCOUNT	ASIN	ASINH
2	ATAN	ATANH	AVERAGE	AVERAGEA	AVERAGEX	BETA.DIST	BETAINV	BITAND	BITLSHIFT	BITOR
3	BITRSHIFT	BITXOR	BLANK	CALCULATE	CALCULATETABLE	CALENDAR	CALENDARAUTO	CEILING	CHISQ.DIST	CHISQ.DIST.RT
4	CHISQ.INV	CHISQ.INV.RT	CLOSINGBALANCEMONTH	CLOSINGBALANCEQUARTER	CLOSINGBALANCEYEAR	COALESCE	COLUMNS	COLUMNS	COMBIN	COMBINEVALUES
5	CONCATENATE	CONCATENATEX	CONFIDENCE.NORM	CONFIDENCE.T	CONTAINS	CONTAINSROW	CONTAINSSTRING	CONTAINSSTRINGEXACT	CONVERT	COS
6	COSH	COT	COTH	COUNT	COUNTA	COUNTAX	COUNTBLANK	COUNTROWS	COUNTX	COUPDAYS
7	COUPDAYS	COUPDAYSINC	COUPNCD	COUPNUM	COUPPCD	CROSSFILTER	CROSSJOIN	CUMPRINC	CUMPRINC	CURRENCY
8	CURRENTGROUP	CUSTOMDATA	DATATABLE	DATE	DATEADD	DATEOFF	DATESBETWEEN	DATESINPERIOD	DATESMTD	DATESQTD
9	DATESYTD	DATEVALUE	DAY	DB	DOB	DEGREES	DETAILROWS	DISC	DISTINCT	DISTINCTCOUNT
10	DISTINCTCOUNTNOBLANK	DIVIDE	DOLLARDE	DOLLARFR	DURATION	EARLIER	EARLIEST	EDATE	EFFECT	ENDOFMONTH
11	ENDOFQUARTER	ENDOFYEAR	EDMONTH	ERROR	EVALUATEANDLOG	EVEN	EXACT	EXCEPT	EXP	EXPON.DIST
12	EXTERNALMEASURE	FACT	FALSE	FILTER	FILTERS	FIND	FIRSTDATE	FIRSTNONBLANK	FIRSTNONBLANKVALUE	FIXED
13	FLOOR	FORMAT	FV	GCD	GENERATE	GENERATEALL	GENERATESERIES	GEOMEAN	GEOMEANX	GROUPBY
14	MASH	HASONEFILTER	HASONEVALUE	HOUR	IF	IFERROR	IFERROR	IGNORE	INDEX	INT
15	INTERSECT	INTRATE	ISMT	ISBLANK	ISBLANK	ISBLANK	ISBLANK	ISBLANK	ISEVEN	ISFILTERED
16	ISSCOPE	ISLOGICAL	ISNONTEXT	ISNUMBER	ISO.CEILING	ISODD	ISONORAFTER	ISPMT	ISSELECTEDMEASURE	ISSUBTOTAL
17	ISTEXT	KEEPFILTERS	KEYWORDMATCH	LASTDATE	LASTNONBLANK	LASTNONBLANKVALUE	LCM	LEFT	LEN	LINEST
18	LINESTX	LN	LOG	LOG10	LOOKUPVALUE	LOWER	MATCHBY	MAX	MAXA	MAXX
19	MINURATION	MEDIAN	MEDIANX	MID	MIN	MINA	MINUTE	MINX	MOD	MONTH
20	MROUND	NAMECP	NATURALINNERJOIN	NATURALLEFTOUTERJOIN	NETWORKDAYS	NEXTDAY	NEXTMONTH	NEXTQUARTER	NEXTYEAR	NOMINAL
21	NONVISUAL	NORM.DIST	NORM.INV	NORM.S.DIST	NORM.S.INV	NOT	NOW	NPV	ODD	ODDFPRICE
22	ODDFIELD	ODDFPRICE	ODDYIELD	OFFSET	OPENINGBALANCEMONTH	OPENINGBALANCEQUARTER	OPENINGBALANCEYEAR	OR	ORDERBY	PARALLELPERIOD
23	PARTITIONBY	PATH	PATHCONTAINS	PATHITEM	PATHITEMREVERSE	PATHLENGTH	PDURATION	PERCENTILE.EXC	PERCENTILE.INC	PERCENTILEX.EXC
24	PERCENTILE.INC	PERMUT	PI	PMT	POISSON.DIST	POWER	PPMT	PREVIOUSDAY	PREVIOUSMONTH	PREVIOUSQUARTER
25	PREVIOUSYEAR	PRICE	PRICEDISC	PRICEMAT	PRODUCT	PRODUCTX	PV	QUARTER	QUOTIENT	RADIANS
26	RAND	RANDBETWEEN	RANK	RANK.EQ	RANKX	RATE	RECEIVED	RELATED	RELATEDTABLE	REMOVEFILTERS
27	REPLACE	REPT	RIGHT	ROLLUP	ROLLUPADDSUBTOTAL	ROLLUPGROUP	ROLLUPSUBTOTAL	ROUND	ROUNDDOWN	ROUNDUP
28	ROW	ROWNUMBER	RRI	SAMEPERIODLASTYEAR	SAMPLE	SAMPLEX	SEARCH	SECOND	SELECTCOLUMNS	SELECTEDMEASURE
29	SELECTEDMEASUREF	SELECTEDMEASURENAME	SELECTEDVALUE	SIGN	SIN	SINH	SIN	SORT	SORTPI	STARTOFMONTH
30	STARTOFQUARTER	STARTOFYEAR	STDEV.P	STDEV.S	STDEV.P	STDEV.S	SUBSTITUTE	SUBSTITUTEWITHINDEX	SUM	SUMMARIZE
31	SUMMARIZECOLUMNS	SUMX	SWITCH	SYD	TDIST	TDIST	TDISTRT	TINV	TINV.2T	TAN
32	TANH	TBILLG	TBILLPRICE	TBILLYIELD	TIME	TIMEVALUE	TOCSV	TODAY	TOJSON	TOPN
33	TOPNPERLEVEL	TOPNSKIP	TOTALMTD	TOTALQTD	TOTALYTD	TREATAS	TRIM	TRUE	TRUNC	UNICHAR
34	UNICODE	UNIQUE	UPPER	USERCULTURE	USERRELATIONSHIP	USERNAME	USEROBJECTID	USERPRINCIPALNAME	UTCNOW	UTCTODAY
35	VALUE	VALUES	VAR.P	VAR.S	VAR.P	VAR.S	YDB	WEEKDAY	WEEKNUM	WINDOW
36	XIRR	XNPV	YEAR	YEARFRAC	YIELD	YIELDDISC	YIELDMAT			

NEW Evidence for the DAX No CALCULATE Approach and the Value of Open-mindedness

<https://bit.ly/EvidenceForDAXNoCalculate>

NEW The One DAX Pattern to Rule Them All (Greg Deckler) and DAX for Humans###

<https://bit.ly/DAXRuleThemAll>

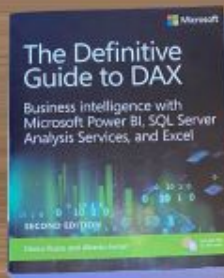
<https://www.youtube.com/@daxforhumans>

NEW My Recommended DAX Books for Users at All Levels

<https://bit.ly/daxbooks>

MY RECOMMENDED BOOKS FOR IMPROVING YOUR DAX SKILLS

BEST BOOK FOR
BEGINNERS



ESSENTIAL
REFERENCE
BOOKS

BEST BOOKS FOR
INTERMEDIATE TO
ADVANCED USERS



OUTSTANDING
SPANISH LANGUAGE
BOOK

Brian Julius, 2022

NEW Using Visual Calculations (Preview) (Microsoft)

<https://bit.ly/MSVisualCalculations>

◆ Learn the Offsets Approach to Time Intelligence

Time Intelligence calculations are some of the most common and important in Power BI. But I believe 99% of Power BI users take the hardest possible road here. There are over three dozen DAX time intelligence functions, which IMO are opaque, duplicative, confusing, and don't work with weeks, fiscal periods, or any other non-standard calendars. The Offset approach solves all these problems in an extremely intuitive way, using the DAX functions you already know from #4 above.

◆ Offset Magic: Making Time Intelligence Functions Disappear

<https://lnkd.in/ee9ZT3Vi>

NEW Stop Using Janky Black Box DAX Functions

<https://bit.ly/DontUseJankyDAX>

NEW Optimizing Time Intelligence in DirectQuery (SQLBI)

<https://www.sqlbi.com/articles/optimizing-time-intelligence-in-directquery/>

The screenshot shows the top portion of a blog post on the SQLBI website. The title is 'Optimizing time intelligence in DirectQuery'. Below the title is a yellow highlighted box with the text: 'This article describes how to optimize time intelligence calculations with DirectQuery over SQL in Power BI by avoiding time intelligence DAX functions.' The author information shows 'FEB 12, 2024' and 'Marco Russo & Alberto Ferrari', with tags for 'DAX', 'DIRECTQUERY', and 'OPTIMIZATION'. A note states: 'NOTE: this article is an excerpt of the Optimizing DAX book and video course.' The main text begins with: 'Calculations that use the DAX time intelligence functions mostly retrieve data at the day level, performing the required aggregations in the formula engine. By avoiding time intelligence DAX functions, you can force DAX to produce more optimized queries for your specific calculations.' To the right of this text is a blue speech bubble containing the word 'FASTER'. The next paragraph starts with: 'DirectQuery over SQL and VertiPaq require the same patterns to optimize time intelligence calculations, even though the reasons are different. In VertiPaq, we try to stay away from DAX time intelligence functions to avoid large materialization at the day level. With SQL, materialization does not always happen because Tabular tries to push the grouping down to SQL. Still, time intelligence calculations often result in complex queries, and it is better to avoid the complexity by using simpler DAX code.' To the right of this text is another blue speech bubble containing the word 'SIMPLER'. The final paragraph begins with: 'As an example, let us analyze a DAX query that for each month computes the growth in sales compared with the same month in the previous year:'

NEW Example of How Simple Offsets Make DAX Time Intelligence Calculations

<https://bit.ly/OffsetsSoSimple>

◆ Learn and Apply the **#IBCS** Framework for Data Visualization

I see a lot of reports every day that go off the rails in the final data visualization stage through bad choice of colors, poor selection and application of chart types, poor layout, insufficient labeling, and a host of other pitfalls. The International Business Communications Standards (IBCS) provide a proven, tested framework for avoiding all of these traps, increasing comprehension of your reports, and making them relevant and actionable to your users.

◆ Increase User Comprehension and Streamline Development of Your Reports with IBCS

<https://bit.ly/IBCSpost>



NEW Download Current IBCS Standards 1.2 (Free)###

<https://www.ibcs.com/ibcs-standards-1-2/>

NEW More Than Just a Standard: How IBCS Facilitates the Perception of Business Data - Management Summary (Blueforte)

<https://bit.ly/BlueforteIBCS>

The IBCS deliver on their promise. They increase the speed of analyses by 46% and the accuracy of decisions by 61%. The rule areas SIMPLIFY and CONDENSE

46 %

**faster processing of
information**

61 %

fewer errors

primarily influence processing time - and are thus 'time-savers'. UNIFY and

CHECK however are the 'quality-managers', as they help readers to avoid errors.

Focus your energies on these "Super Six", and see how much simpler Power BI can be...

Best of luck with your journey.

- Brian

Power BI

