Credit Union

Power BI User Group

Best Practices For Business Intelligence Project Requests

Credit Union Power BI User Group

April Virtual Meet-Up

April 21st, 2021

Agenda

Community Updates
Charlotte Taft | Senior Director of Business Intelligence | Callahan & Associates

Resources & Connections
Bill Butler| Power BI Developer| The Knowlton Group

Best Practices for Business Intelligence Project Requests
Kelly Gage| Business Intelligence Analyst| Red Canoe Credit Union (WA, $1B)

Live Q&A

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Who Registered For Today's Webinar?

Digital Analyst
Accounting
Database Developer II
Data Services Manager
Compliance
Managing Analyst
Solutions Development Manager
Lending Projects Manager
Quality and Recon Spec
Manager, FP&A
Internal Audit Manager
Finance Assistant Manager
VP Operations/Branch Coordinator
System Analyst
Delivery Channel Analyst
Core Solutions Manager
Reporting Specialist
Products and Delivery Executive Analyst
Chief Analytics Officer
Corporate R&D Specialist
VP Marketing
Branch Operations Manager
Impact Reporting Manager
BI/Data Engineer
BI/Analytics
BI Developer
Director of Secondary Markets
Controller
Business Data Analyst
Member Data Analyst
Process Analyst/Reporting
CXO
Sales and Marketing Manager
VP of Marketing
Operations Analyst
SM Modeling Analyst
BI Analyst
CDO
CMO
VP IT/IS
VP BI/Analytics
CFO
VP Finance
BI/Analytics Manager
BI/Analytics Director
Data Analyst
Programmer/Developer
Project Manager
Analyst
Financial Analyst
Data Science Analyst
IT Director
IT Manager
CIO/CTO
President/CEO
Marketing Analyst
Marketing & Engagement Specialist
Credit & Debit Card Product Manager
BI Specialist
VP, Project Management
Investor Operations & Reporting Supervisor
VP Digital Products/Strategy
BI & Deposit Products Advisor
Financial Data Supervisor
Payments Data Analyst
Sales & Marketing Operations
V.P. Marketing/Business Development
PowerBI Developer
VP, Learning & Development
Market Research Analyst
Capital Markets Trader
Predictive Data Analyst
Consumer Lending System Admin
IT - Application Support Analyst
Data Vizualisation Engineer
VP Retail Services
Operations Director
Enterprise Data Architect
Data Analytics Support
Database Administrator
NPS Program Mgr
Portfolio Risk Analyst
Chief Strategic Officer
Data Specialist
ES Manager
BI Team Lead

Resources & Connections

The Journey of Mastering Power BI

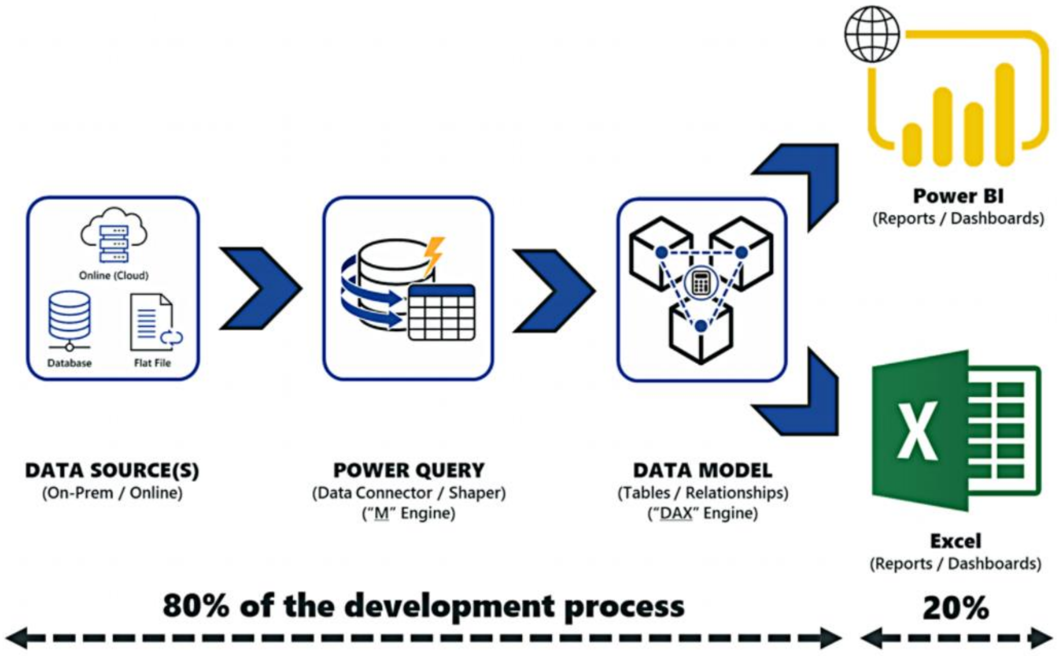
Significant Endeavor
"This is not for the faint hearted"

BUT mastering Power BI is worth the effort

There are many resources available

Power BI has a very large and active community, collaborating & sharing knowledge

There is a need for Credit Union's to also collaborate & share knowledge



(graphic is from Reid Havens website)

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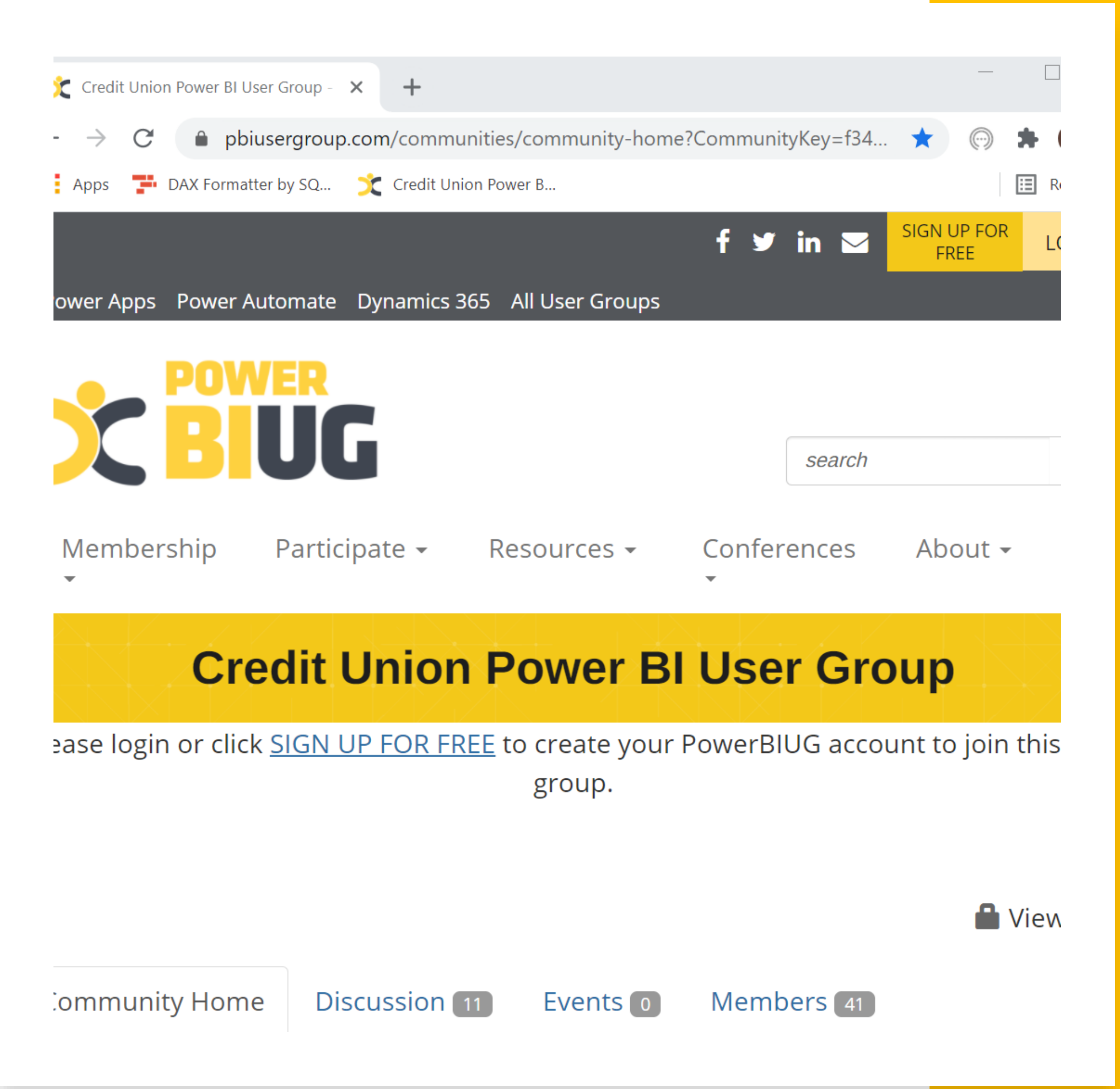
https://www.pbiusergroup.com/communities/community-home?CommunityKey=f34461e6-cad5-474a-8497-816a9a0b9ea9

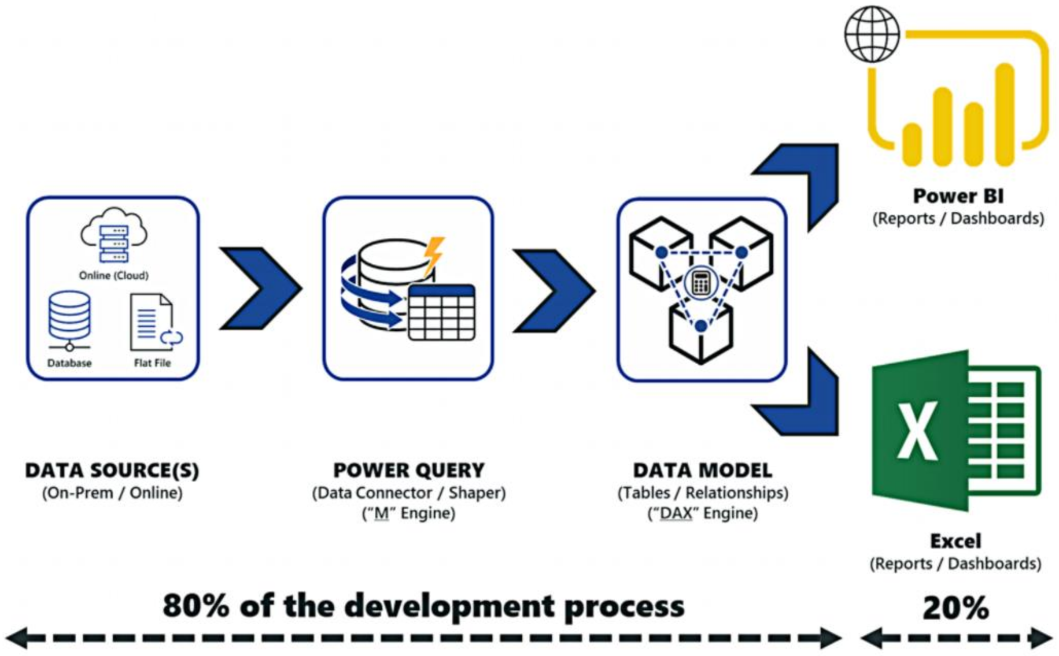


Three examples of posts that might be valuable to the participants

First, Skillwave Training

Second, Specific Training by Reid Havens

Third, PBI Cleaner by Immke Feldman, the BIccountant



(graphic is from Reid Haven's MVP's website)

Skillwave Training

https://www.skillwave.training/

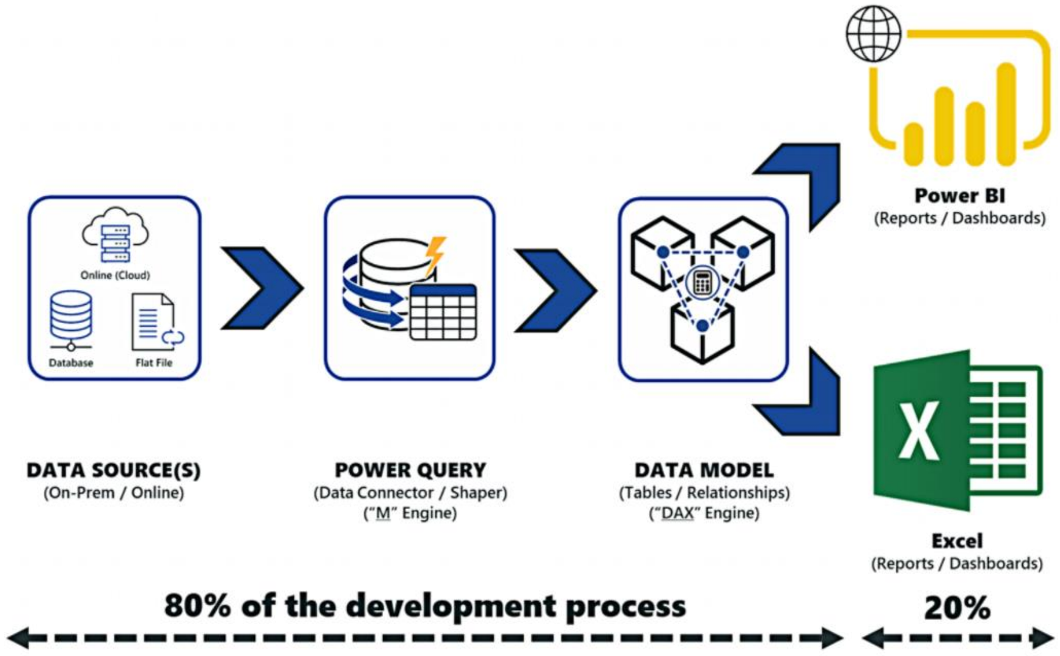
Skillwave Training is a new training resource

Delivered by three expert MVPs in Power BI

Ken Puls

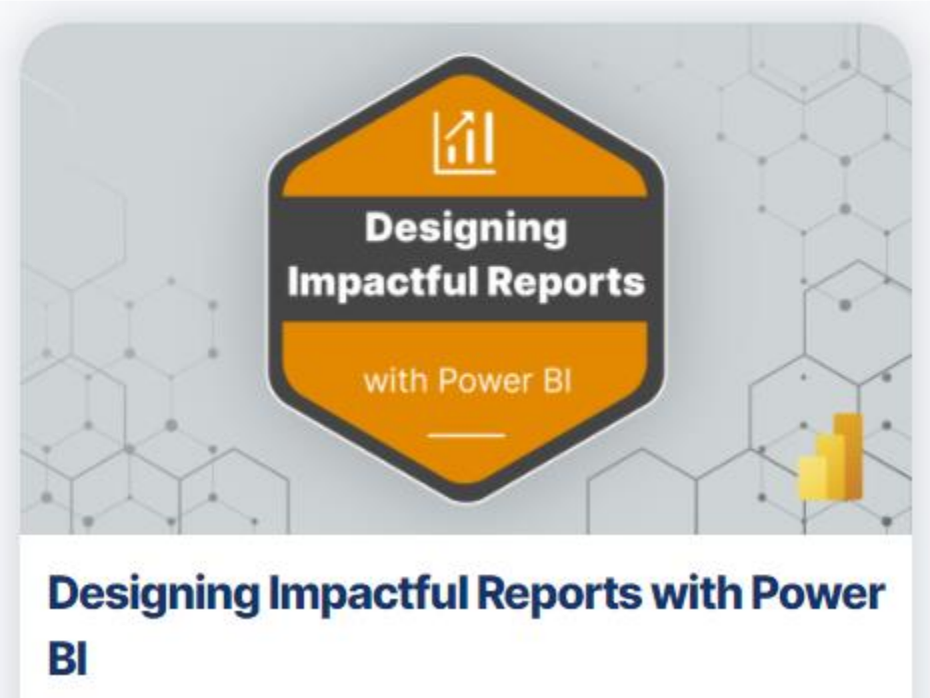
Miguel Escobar

Matt Allington

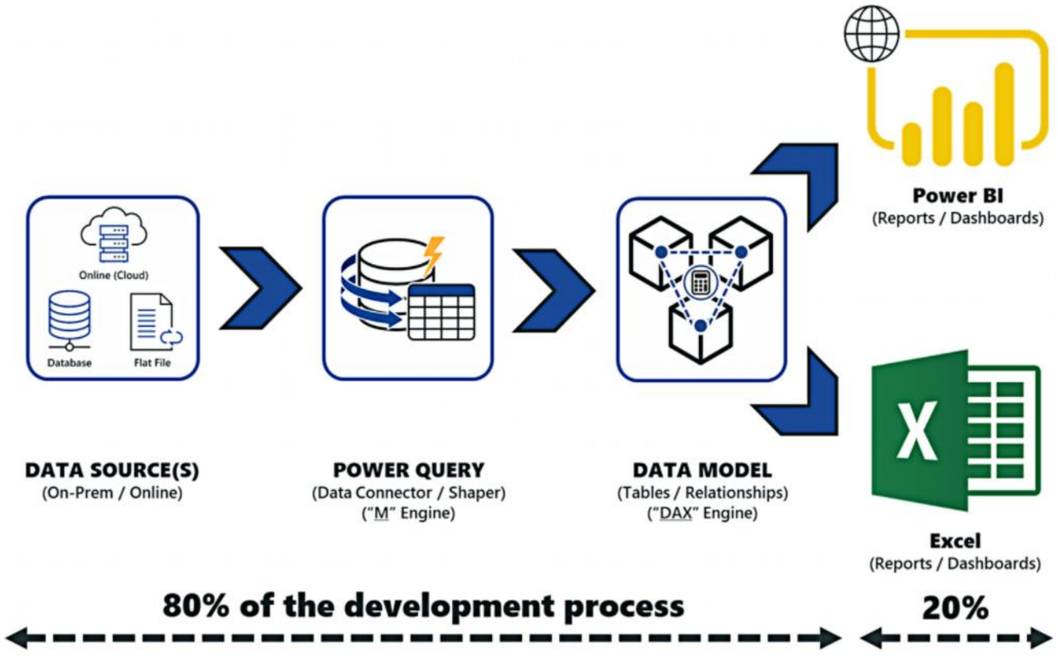


(graphic is from Reid Haven's MVP's website)

Designing Impactful Reports
by Reid Havens



Skillwave



(graphic is from Reid Haven's MVP's website)

"Power BI Cleaner“ by Immke Feldman

Optimization tool

"Power BI Cleaner" provides valuable information about a data model

Especially, identifies table columns that are not being used in the model

These columns are expensive and will bloat the size of a model

Example: 3 months of Share transactions - approx. 7.5 million rows decreased the size of the file by approx. 80%

THE BICCOUNTANT

TableName	Cardinality	Table Size	Columns Total Size	Where Used	Data Size	Dictionary Size	User Hierarchies Size	Encoding _	Relationships Size	RI Violations #	Table Size %	Database Size %	Segments #	Partitions #	Columns #
Customer	**1,453**	**343,959**	**343,959**	**6.00**	**28,088**	**275,303**		**Many**		**0**		**43.44%**	**1**	**1**	**24**
Name	1,175		50,199		1,888	38,871		HASH			14.59%	6.34%	1	1	1
City	377		32,142		1,664	27,422		HASH			9.34%	4.06%	1	1	1
Company Name	279		31,142	Visuals | Roles	320	28,550		HASH			9.05%	3.93%	1	1	1
State	79		20,862		[illegible]	19,430		HASH			6.06%	2.63%	1	1	1
Country	23		18,108	Filters	240	17,644		HASH			5.26%	2.29%	1	1	1
Education	6		17,772	Filters	[illegible]	17,228		HASH			5.17%	2.24%	1	1	1
Occupation	6		17,734		448	17,190		HASH			5.15%	2.24%	1	1	1
Gender	3		17,424	Roles	296	[illegible]		[illegible]			5.06%	2.20%	1	1	1
Marital Status	3		17,424		[illegible]	[illegible]		[illegible]			5.06%	2.20%	1	1	1
House Ownership	3		17,394		232	[illegible]		[illegible]			5.06%	2.20%	1	1	1
Continent	3		17,228		48	[illegible]		[illegible]			5.01%	2.18%	1	1	1
Title	4		17,176		[illegible]	[illegible]		[illegible]			4.99%	2.17%	1	1	1
Customer Type	2		17,174		8	[illegible]		[illegible]			4.99%	2.17%	1	1	1
CustomerKey	1,453		8,864	Relationships	2,912	[illegible]		[illegible]			2.58%	1.12%	1	1	1
Profit	611		8,400		5,816	[illegible]		[illegible]			2.44%	1.06%	1	1	1
Customer Code	1,176		7,200		2,352	120		VALUE			2.09%	0.91%	1	1	1
Birth Date	1,097		6,880		[illegible]	120		VALUE			2.00%	0.87%	1	1	1
RankOnProfit	616		4,936		2,328	120		VALUE			1.43%	0.62%	1	1	1
Date First Purchase	588		4,384		1,888	120		VALUE			1.27%	0.55%	1	1	1
GeographyKey	379		3,600		[illegible]	120		VALUE			1.05%	0.45%	1	1	1
Yearly Income	17		2,448		[illegible]	1,488		HASH			0.71%	0.31%	1	1	1
Total Children	7		1,920	Filters	448	1,376		HASH			0.56%	0.24%	1	1	1
Cars Owned	6		1,876		408	1,372		HASH			0.55%	0.24%	1	1	1
Children At Home	7		1,672		200	1,376		HASH			0.49%	0.21%	1	1	1
Sales	**5,814**	**311,096**	**308,560**	**9.00**	**124,176**	**140,888**		**Many**	**2,536**	**0**		**39.29%**	**1**	**1**	**13**
Total	**7,999**	**791,323**	**776,435**	**28.00**	**154,544**	**530,835**	**12,352**	**Many**	**2,536**	**0**		**99.94%**	**4**	**4**	**51**

A lot of columns are not used in this model

Instructions | Tables | Relationships | Columns | User Hierarchies | Compression | Columns Data Types | Encoding | Measures | Where Used Direct | Where Used Indirect

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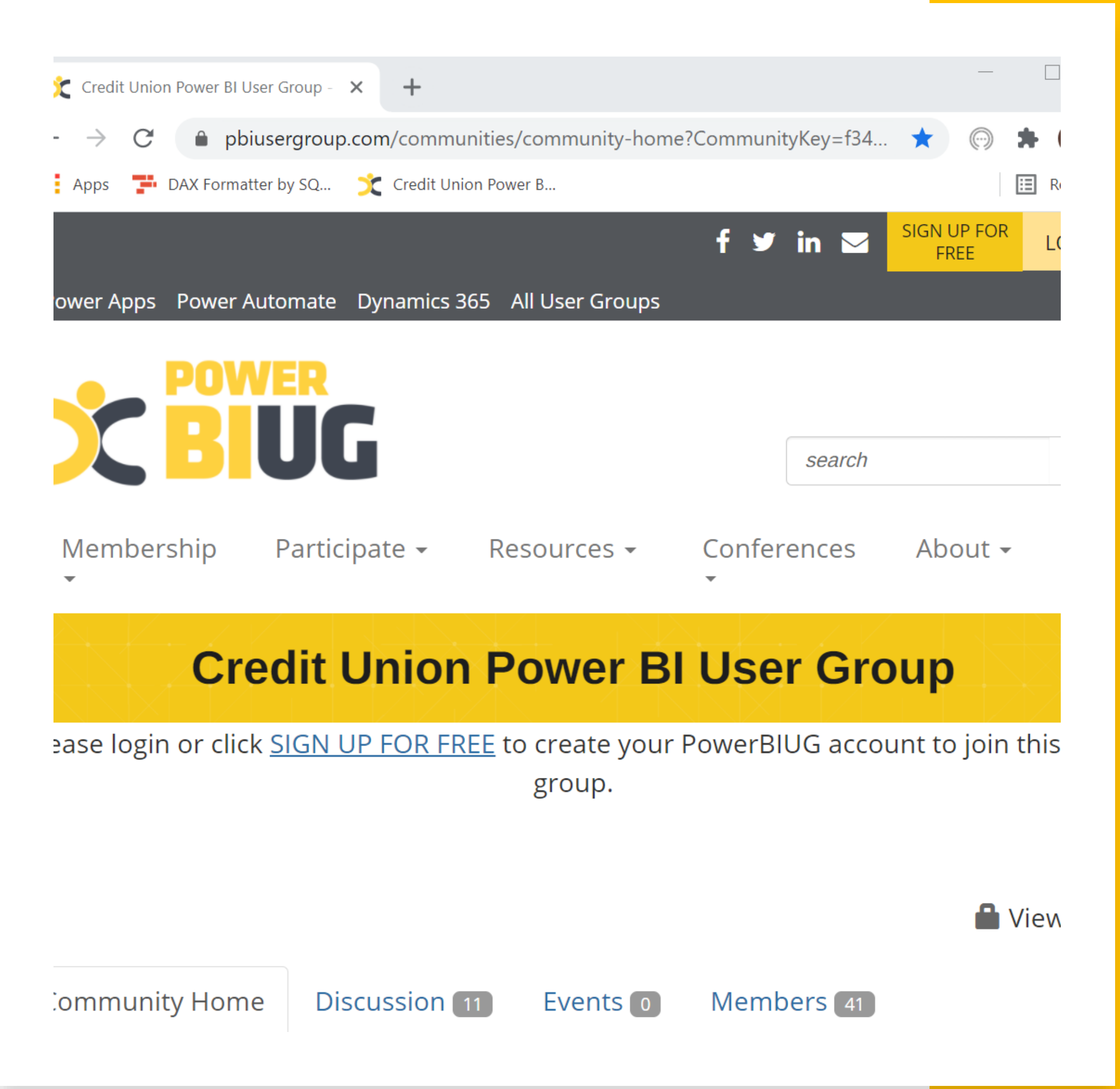
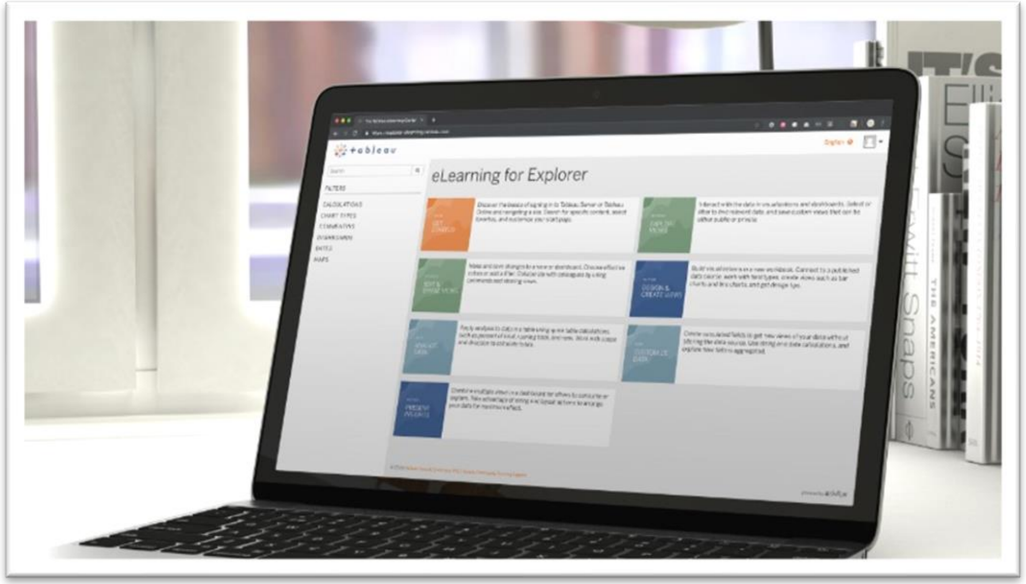
Please Join



Training Alert



Up For Grabs!

12 Months of FREE Tableau e-Learning for one of our members!

Email Charlotte ctaft@callahan.com to request and we will draw a name out of a hat!

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Red Canoe Credit Union

Longview, WA| Assets: $1B

Name	Red Canoe	Credit Unions Over $10B	Credit Unions $1B-$10B	Credit Unions $500M-$1B	Credit Unions $250M-$500M	Credit Unions Under $250M	All Credit Unions in U.S.	Registered Attendees
Assets	$1,046,272,471	$24,790,181,142	$2,579,997,218	$707,888,624	$350,932,496	$50,586,381	$358,248,039	$3,316,280,318
Loans	$644,664,840	$15,337,525,219	$1,690,887,338	$458,840,565	$214,155,929	$26,995,331	$225,648,363	$2,172,540,571
Shares	$921,069,165	$20,908,515,864	$2,220,115,743	$614,024,690	$308,423,445	$44,415,170	$308,409,465	$2,825,989,994
Net Worth	$108,022,302	$2,450,822,460	$266,525,491	$72,527,060	$36,171,495	$5,662,206	$36,981,785	$334,625,071
Members	59,281	1,593,313	158,173	50,390	27,100	4,562	24,140	212,694
FTEs	232	3,198	403	144	79	13	61	491
Return on Assets	0.49%	0.68%	0.81%	0.62%	0.55%	0.45%	0.70%	0.70%
Operating Expense Ratio	3.19%	2.65%	2.90%	3.42%	3.52%	3.51%	3.02%	2.87%
12-Mo. Asset Growth	24.52%	18.86%	19.14%	17.16%	17.28%	15.48%	18.29%	18.36%
12-Mo. Loan Growth	7.19%	4.74%	6.34%	5.92%	5.09%	1.95%	5.42%	5.13%
12-Mo. Member Growth	-0.19%	8.80%	4.20%	2.10%	1.34%	-0.53%	3.85%	6.36%
# CUs	1	16	359	284	371	4177	5207	201

Best Practices for Business Intelligence Projects

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Kelly Gage
Senior Business Intelligence Analyst
kgage@redcanoecu.com
(360) 578-5317

Introductions

- 19 years in Credit Union Industry
- Data & Analytics for almost 10 of those
- SSRS/SQL dabbling, Tableau Desktop Certified since 2014, started working in Power BI June 2020
- Fun Facts

Red Canoe Credit Union

- HQ in Longview, WA
- Community Charter founded in 1937 as Weyerhaeuser CU
- 11 Branches across WA/OR
- Just passed $1B in Assets with 59,281 members
- Business Intelligence is an IT department reporting up to CIO. Manager, DBA, Developer, Analyst

Bella and Max

What's A Project?

- I found a variety of definitions for the term "Project"- I cobbled a few together to get this description:
  - A project is an individual or collaborative enterprise that is carefully planned to achieve a particular aim. It falls outside the scope of day-to-day operations, has a defined beginning and end in time and therefore defined scope and resources.
- Today we're talking about any ASK made by your organization, large or small, that you need produce collateral for- from a dashboard to a single use data set.

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#1 Track Your Progress

- Have a mechanism to track what is being asked and the work being done on that ask.
- Leaders need to be able to account for the teams' effort (people cost).
- Lots of tools- ticketing systems and project management software; NOT EMAIL.

- Gives a list of work to prioritize
- Tracks interactions with user for acceptance and change requests
- Consolidates the work for historical tracking and collects tribal knowledge
- Provides a data set for team performance and organization's utilization of your skills (budget?)

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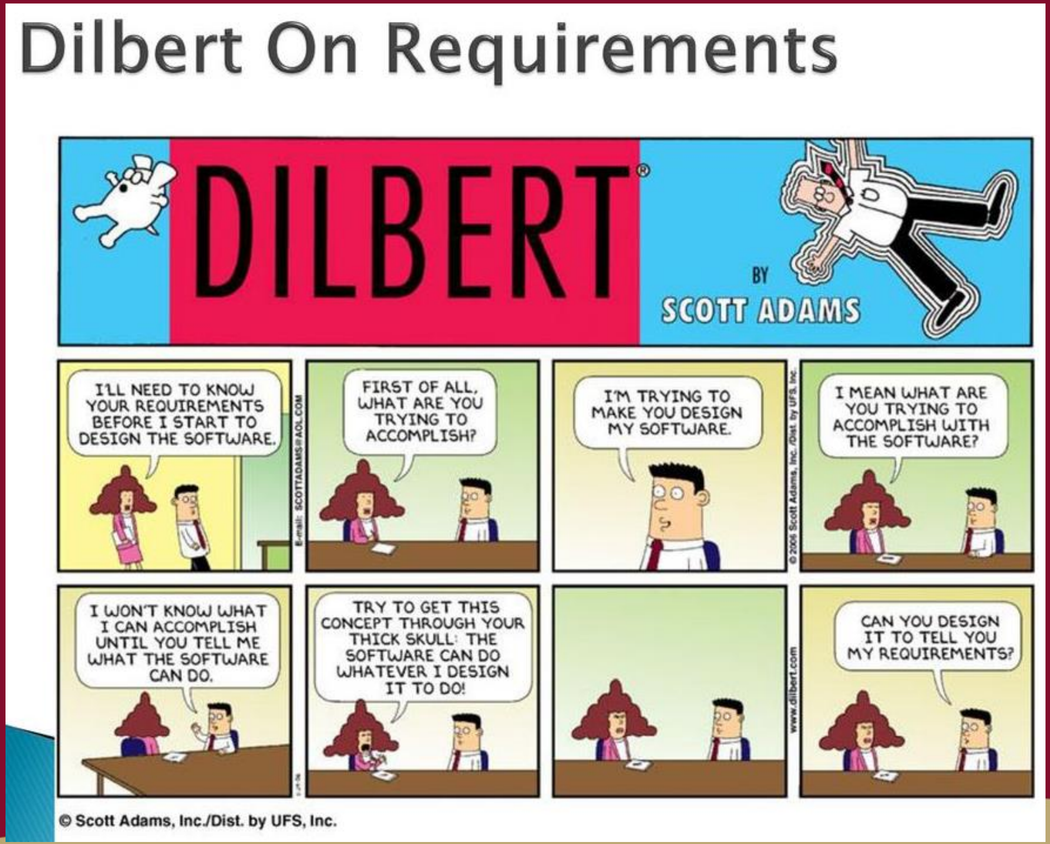
#2 Communication is KEY



- Clear, regular communication will make or break your project.
- When an ask comes in- set a time to meet and discuss it.
  - If the requestor IS the person using it great, if not, make sure both are present (i.e., manager puts in ticket, staff is using the report) and a developer from your team.
  - Be as open and sincerely friendly as possible- *I'm excited to learn more about what you do so we can make your job easier!*
  - THEY are the expert; listen and learn.
- Ask LOTS of questions to make sure you understand the ask and are on the same page.
- At the end of your conversation repeat back what you plan to build- create a mockup for a visual if you can.
- Document meeting notes/requirements in the tracking tool.

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#2 Communication is KEY

- Set the expectation of an ITERATIVE process- The first output usually isn't the final. (BRING ME A ROCK)
- If you have additional questions, call or video chat before resorting to email. Have an example of what you're asking about (data or draft report) to get clarification.
- Make a plan to communicate regularly through the project
  - Check in even if you have nothing to report, it reinforces relationships. If things are going slow, adjust the schedule so it makes sense.
  - Set expectations for user responses (2-3 days? A week?); with no deadline you may not hear back and stall your project.
- Like the initial kickoff, set a meeting to review the first output and talk through it. Or, for a basic request, reach out and ask for feedback by a deadline.
- If the build will have regular use (weekly/Mo.ly/quarterly) set a check in meeting to follow up (ex: 30 or 90 days after final review) before adding enhancements.

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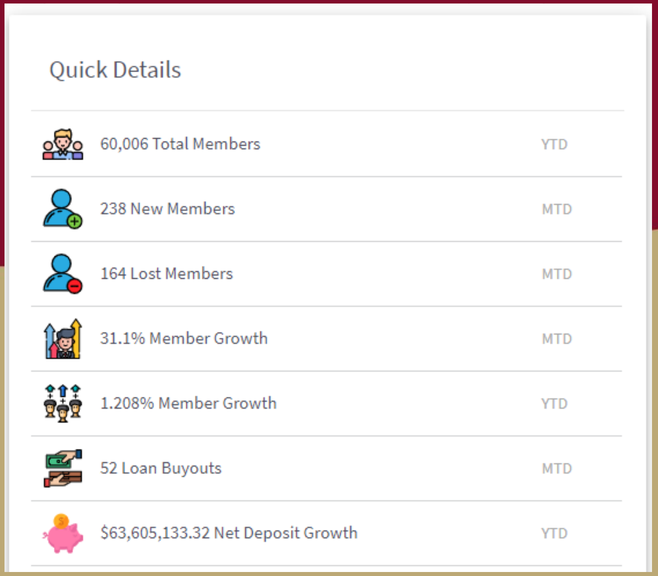
#3 See The Big Picture

- When an ask comes in and you meet with the business user, have them explain what they're asking for and how they'll use it.
- This discovery process often reveals the initial ask is nothing like what they really need and helps define depth/scope.
- Leverage your awareness of CU processes and think broadly before nailing down a solution. You may think of enhancements that provide larger benefit the user hasn't thought of.

EXAMPLE:

- Ticket Request: How many members did we have at the end of last quarter? (asked every few Mo.s for Call Report)
- Actual project: Build an SSRS report that provides (organizationally defined) member count Mo.ly for reporting purposes (regulatory & internal). Underlying source was used for a Report Center splash page with a variety of metrics.



#4 Start With The End In Mind

- Once you understand the bigger picture, think about how the result will be used.
  - Is it a one time ask, repeatable, used daily?
  - What level of detail do you need?
- When possible, try and get more birds with fewer stones.
- If there are other parties that could be affected, make them aware/get involved early to avoid headaches later.
  - This can also apply to new business line initiatives- get your team involved early to help shape the data you'll be interacting with (like new systems or significant process changes)
  - This isn't always easy, particularly if business lines believe they "own" the information or process and shouldn't have to include others.
  - Approaching the problem with a "can do" attitude helps alleviate tension- communication is key!

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#5 Team Effort

- Know your team dynamic- who’s got what skills?
  - Business Analysts & developers should overlap to help each other get the best set of requirements (cross training)
  - Have someone check your work before rolling it out to user for review.
- Share your work in progress-
  - Weekly sprint or team meetings to share active projects
  - Business line analysts? Create an internal Analyst Group to keep up with what’s being asked and consolidate requests.
- Opportunity for Feedback- Manager follow up
  - Unexpected reviews sometimes!

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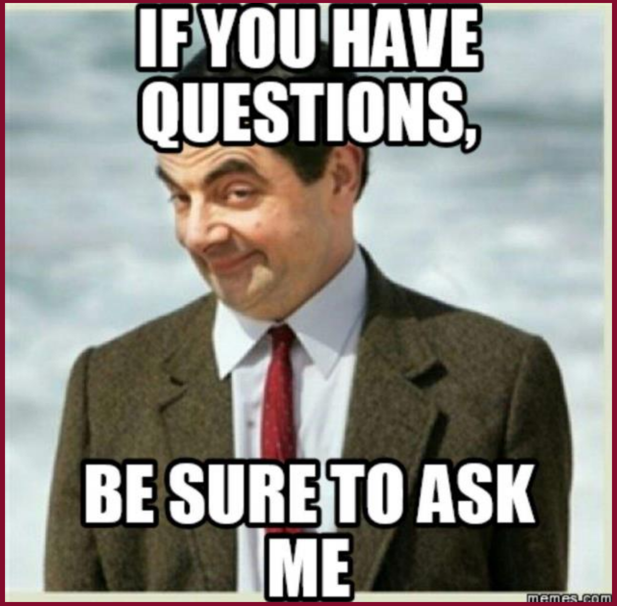
Secrets to Success



- Communication is KEY- With business users and your team (through requirements). Can't stress this enough!
- Ask LOTS of questions, all the time
- Good requirements and visual examples help define the rock.
- Know your resources- who in each business line is your best contact point for projects for that team (find advocates)
- DOCUMENTATION- it's a dirty word but we have to do it!
- Attitude will help you or hurt you- the decision is yours! (soft skills matter)

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THANK YOU!

Don’t Miss An Update

Sign up using the below link to get email updates – you can select which updates you’d like to receive:

Analytics Community Email Sign-Up

- Power BI community page
- Tableau Community page

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We Need You!

Join the Power BI Community Group Online!

Get the collaboration started!

Want to…

Present at an upcoming meeting?
Suggest a topic?
Give feedback?
Join the steering committee?

Email ctaft@callahan.com!

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