

# Twitter Data Analysis using MAXQDA

#### Trainer: Danielle N. Jacques

## Importing Twitter Data

The Twitter Data Import function can be found on the **Import > Twitter Data**. On the Import screen, you may choose to import by keywords, phrases, hashtags, or posts by specific authors. The search bars work as "AND" functions; you may enter multiple search criteria at one time, but It will narrow down your search results significantly.

## MAXDAYS MAXQDA VIRTUAL CONFERENCE

🎔 Import data from Twitter		– 🗆 X							
Twitter login									
Connect to Twitter		<u>_</u>							
Connected as: Danielle N. Jacques		<b>_</b>							
The imported Twitter content must not be used for advertisement purposes and must not be used for people identification. By continuing I agree with these terms.									
Search									
All of these words									
This exact phrase									
Any of these words									
None of these words									
These hashtags	MAXDAYS21								
From these accounts									
To these accounts									
Mentioning these accounts									
Written in	Any language	~							
From	3/14/2021 ∨	12:00 AM ≑							
to	3/21/2021 ~	11:59 PM 🚖							
Please note: Twitter does not allow the import of tweets older than 1 week.									
✓ Include retweets	500 🚔								
0	Run search	Cancel							

You may also specify a language for the tweets you wish to Import, and MAXQDA will limit the search results to only Tweets In the chosen language.

Twitter does not allow for the Import of tweets that are older than 1 week.

You may also choose to Include retweets in the results, and limit the Import to a set number of tweets. MAXQDA can import **up to 10,000 tweets at one time**.

When you are satisfied with your search criteria, click **"Run Search."** A new window will open, containing a table document that Includes each tweet found in the search, as well as Information on the tweet's author.

Here, you can check to verify that

the search terms you chose are resulting in tweets that are relevant to your central research question. If the tweet previews look good, **click "Import Data" In the bottom right corner to begin the Import.** If you wish to make tweaks to your search criteria before continuing, you may click "cancel" to go back to the Import screen.

## **Autocoding Twitter Data**

MAXQDA will ask you If you wish to autocode the Imported data. You can always do this at a later time by going to **Analysis > Twitter Data > Autocode Tweets.** In general, it's a good Idea to do this upfront.



In the next screen, MAXQDA will prompt you to Select Hashtags and Select Authors that you wish to autocode. Each autocoded hashtag and author will appear In the Code System as a code.

🎔 Autocode Twitter Data	×	🄰 Autocode Twitter Data					×	
Select documents with Twitter data Select documents with Twitter data								
Twitter data (3/21/2021 3:41 DM)\Tweets 1 - 14		Twitter data (3/21/2021	3:41	PM)\Tweets 1 - 14				
		[		Select hashtags		_		×
				j-			_	
			Total	= 14		Selecte	ed = 2 (max	c. 100)
			$\mathbf{T}$	<b>▼</b> <i>P</i>   τ ∈	)		WX	<b>-</b>
				Hashtag	Tweets 🔻		%	
			T	maxdays21	13		0.93	
			٣	maxqda	5		0.36	
			•	qda	3		0.21	
			•	dataanalysis	2		0.14	
			•	qualitative	2		0.14	
			•	trainers	1		0.07	
			•	studentlife	1		0.07	
			•	phdforum	1		0.07	
			•	caqdas	1		0.07	
			•	networking	1		0.07	
		Autocode tweets with	•	research	1		0.07	
			•	phdlife	1		0.07	
Autocode tweets with hashtag (0 selected) Select hashtag	s	Autocode tweets with	•	coding	1		0.07	
Autocode tweets with author (0 selected) Select authors		0	•	mixedmethods	1		0.07	
		-	0		ОК		Cancel	
Autocode Cancel		L	_					

Double click on the stop sign icon next to each hashtag or author that you wish to autocode. You may select up to 100 hashtags and 100 authors to autocode at one time.

### Your Document System & Code System

When you successfully import and autocode Twitter data in MAXQDA, two things occur simultaneously in your Document and Code Systems:



1) In your document system, a **Document Group will be created for the imported data**. By default, this group will be named "Twitter Data," followed by the date and time of the import. Similarly, **documents containing tweets will be created and placed within the Document Group. Documents hold up to 1,000 tweets each**; therefore, if you have 10,000 tweets in your sample, you will have 10 documents: Tweets 1-1000, Tweets 1001-2000, etc. **There is a Memo attached to the Document Group containing the search terms used in the import.** 

2) The selected hashtags and authors will be added to the Code System as codes. A top-level code is created called "Autocode Twitter Data," with the date and time of the import included. "Tweet author" and "Tweet hashtag" are created as second-level codes beneath it, and each code contains the up to 100 authors & hashtags that were selected as part of the autocode process.





## Analyzing Your Imported Tweets

Imported tweets can be viewed in the Document Browser. Each row contains the text of one tweet and includes information on the tweet (such as how many likes and replies), as well as the author (such as their name, # of followers, location, etc.).

If you autocoded your tweets at the beginning, you will also see the coded hashtags and authors on the left-hand side of the document, in the grey coding strip area.



Many of MAXQDA's standard coding and analytical tools may also be used to analyze Twitter data. In particular, you may use the **Retrieved Segments Window** to identify tweets containing specific hashtags or from specific authors. You may also create your own codes and apply them to tweets themselves if you wish to perform a thematic analysis of your data.

You may access a special set of Twitter Data Analysis tools by going to **Analysis** > **Twitter Data** > **Analyze Tweets.** From here, you can **filter your tweets** using the criteria on the left-hand side of the table. The more criteria you select, the narrower your set of tweets will become.

From this screen, you may also **create statistical graphs** of the tweets in the filtered list by selecting the Statistics icon from the top of the menu. You may cycle through charts using the left and right arrows near the drop-down list at the top of the menu.





There are also lots of options on the top left of the menu which allow you to change the way the graphs look. You may **add or remove labels, choose frequency or percentage labels, and even change the colors of the graph**. On the right-hand side, you may change the type of graph. There are 3 graph options: **pie chart, horizontal bar chart, and vertical bar chart**. All graphs may be exported for use in reports, articles, etc., by using the red arrow icon in the top right.

On the newest version of MAXQDA 2020, you may also create a **Sentiment Analysis** of the filtered tweets by selecting the "Sentiment analysis" option from the top toolbar. MAXQDA will assign a sentiment score from positive to negative to each tweet based on specific keywords.

Tweet	Retweets	Likes	Followers	Sentiment 💌	Words	e Words	Difference
@SlowRunn3r: Rounded off a great work day with a lovely evening trot as the sun set. Unexpectedly lovely day today.   #GoodVibes #tuesd	1	0	26.962	Positive	12	0	12
Great end of the week walk. So lovely to be able to explore in beautiful surroundings near home. #peaceful #WorkLifeBalance #outdoors #sunset https://t.co/3H2eOiWh2r	0	6	488	Positive	12	0	12



You may also create statistical charts of the resulting sentiment analysis using the Statistics option, as well as autocode the tweets according to their sentiment for further analysis.

			Tweets					
	+	Sentiment			🗐 🖶 🗗 🚺			
	% 🔢 🗄 🗰 🖬	T LI 📕 🛤 🖽			• E 11			
Sentiment								
45%				42,6%				
40%								
35%								
30%			28,4%					
25%			-					
20%			-		20,8%			
15%			-		_			
10%		7 2%	_		_			
5%			_		_			
0%	1,0%		Number 1		De sili			
	Negative	Slightly negative	Neutral	Slightly positive	Positive			