

Twitter Streaming Importer

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Description of the plugin

This plugin is created by [Matthieu Totet](#), who is a long time community member of Gephi (check his [Gephi Streamer!](#))

You can find additional documentation on this plugin on [Matthieu's website](#).

This plugin enables you to:

- Collect tweets in realtime, on the topic you choose
- Get the connections between the users mentionned in these tweets
- Visualize these connections in Gephi, or just export all the tweets to Excel

Installing the plugin



The setup of the plugin will need you to create a Twitter account, if you don't already have one. Get your Twitter login and password ready. **You also need a mobile phone number where your Twitter account can be confirmed.**



Setting up a Twitter account and creating a Twitter app is a boring task.

It takes just 15 minutes, and you have to do it just once. Then you'll have Twitter at your fingertips.

Let's go!

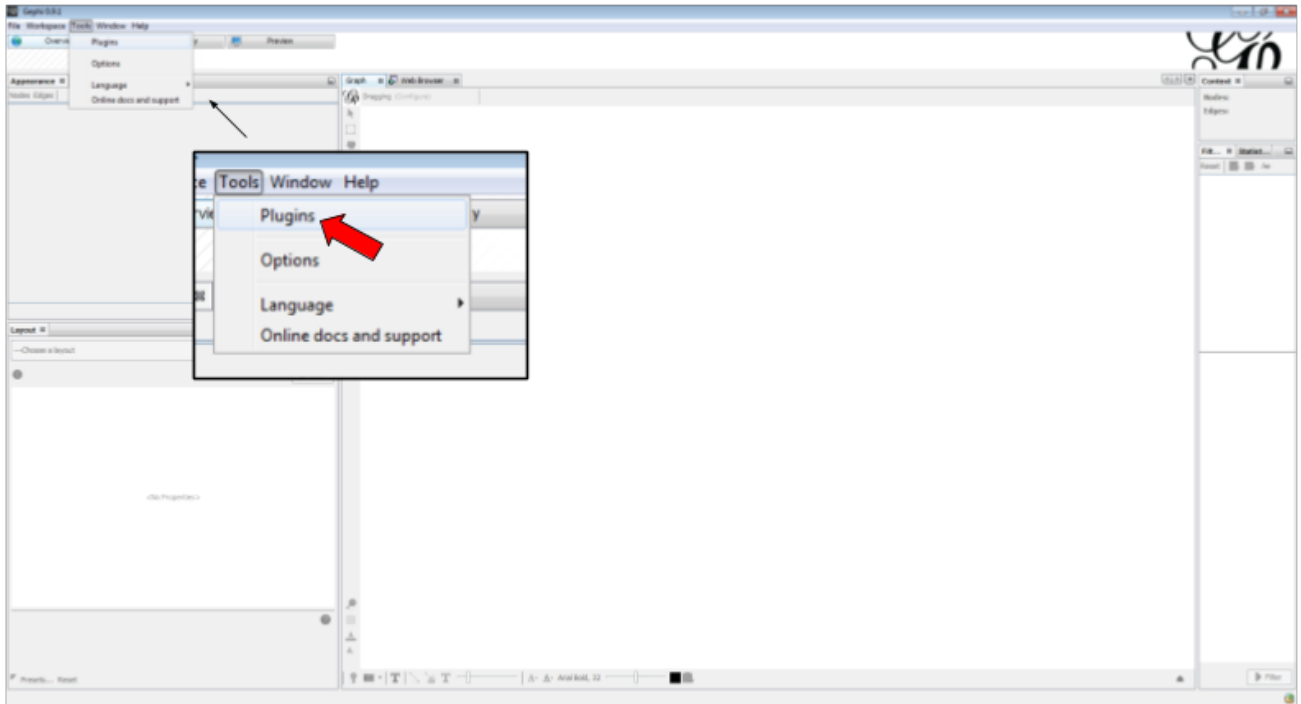


Figure 1. Choose the menu Tools then Plugins

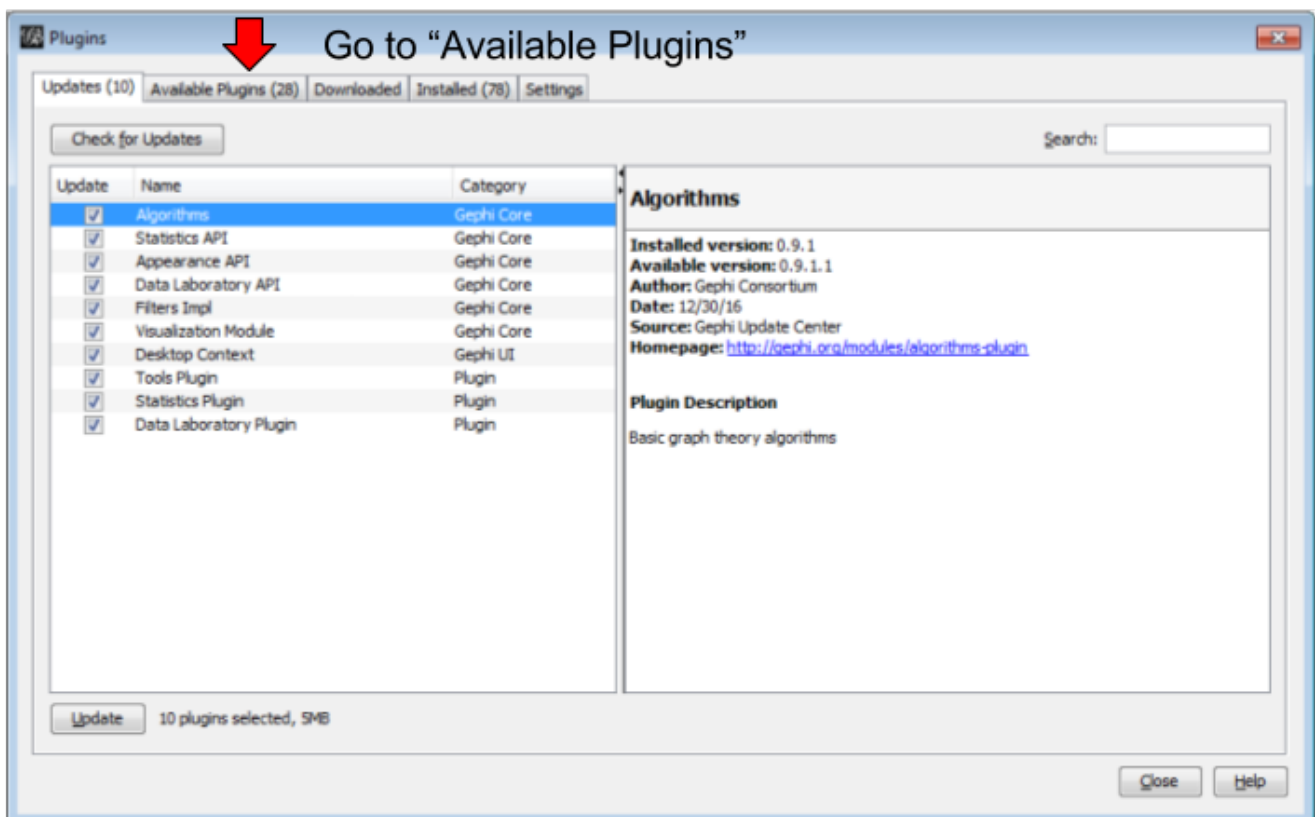


Figure 2. Click on the tab Available Plugins

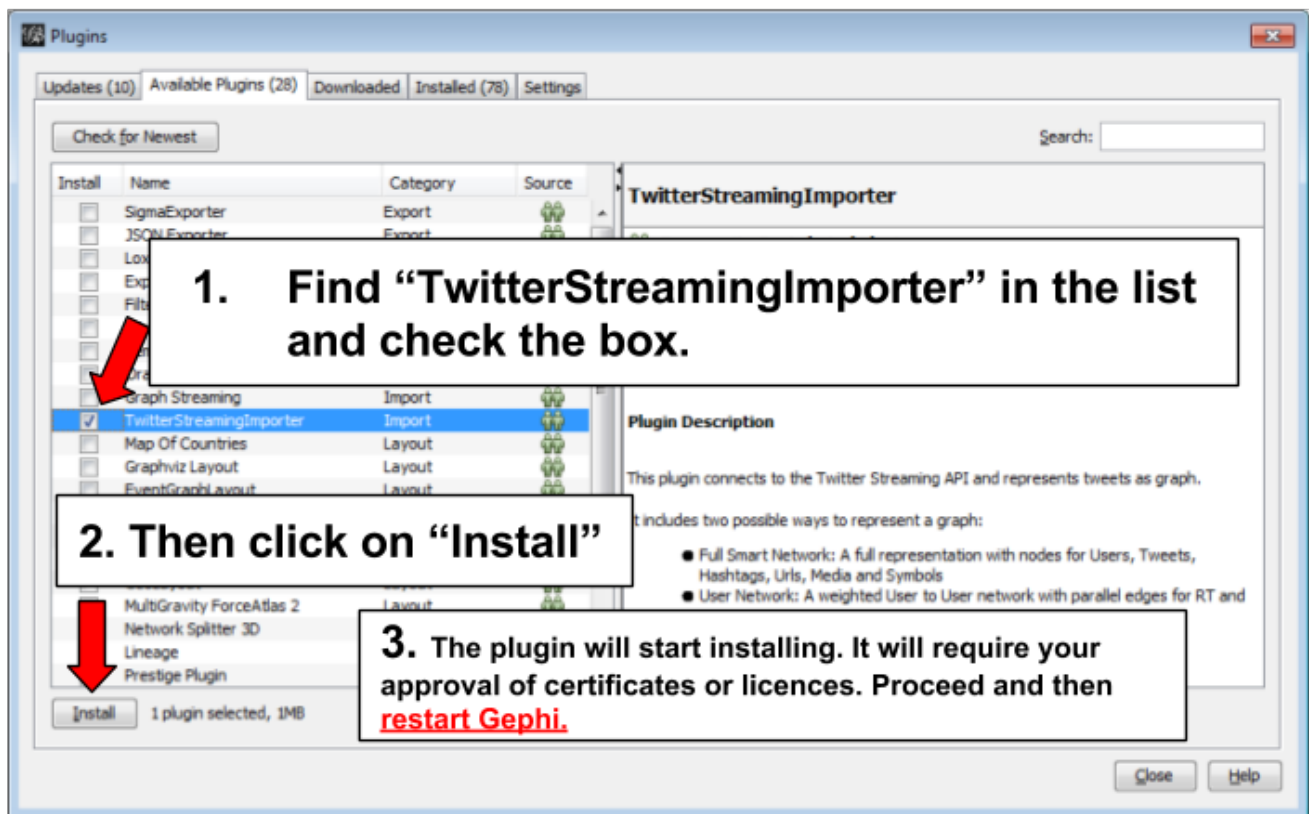


Figure 3. Install the plugin then restart Gephi

Initializing the plugin (to be done just once)

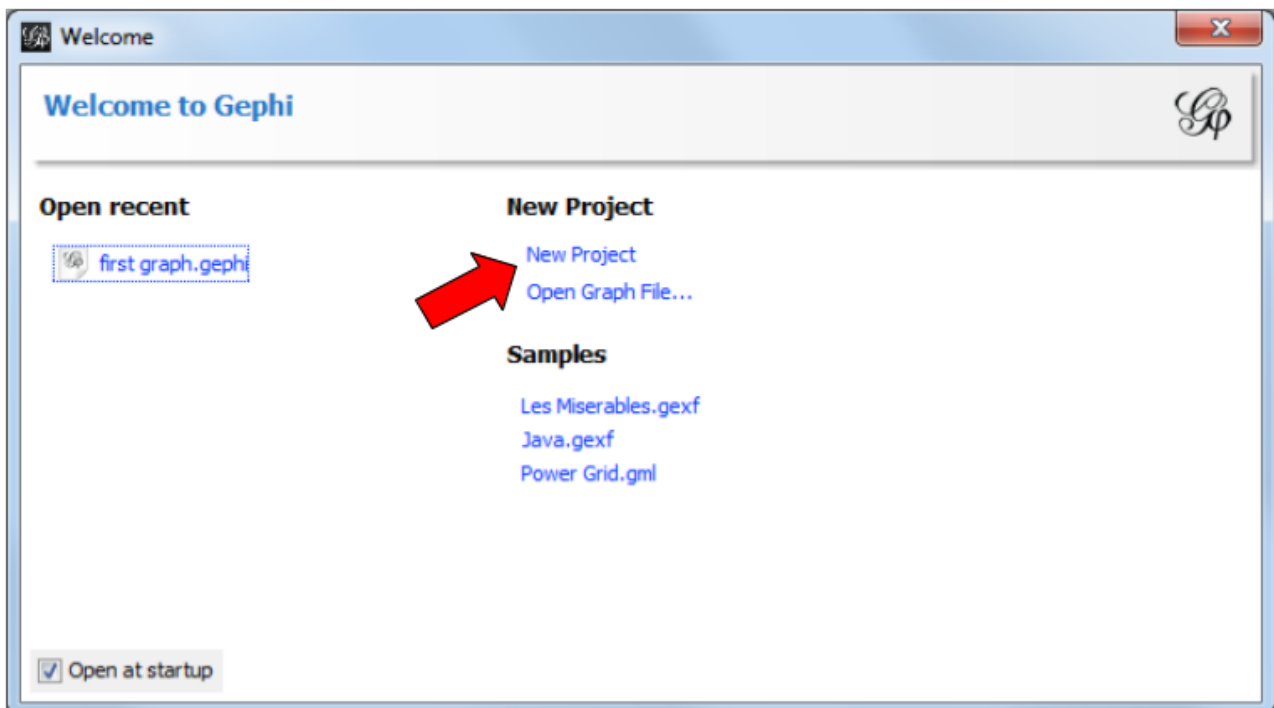


Figure 4. Open a new project in Gephi

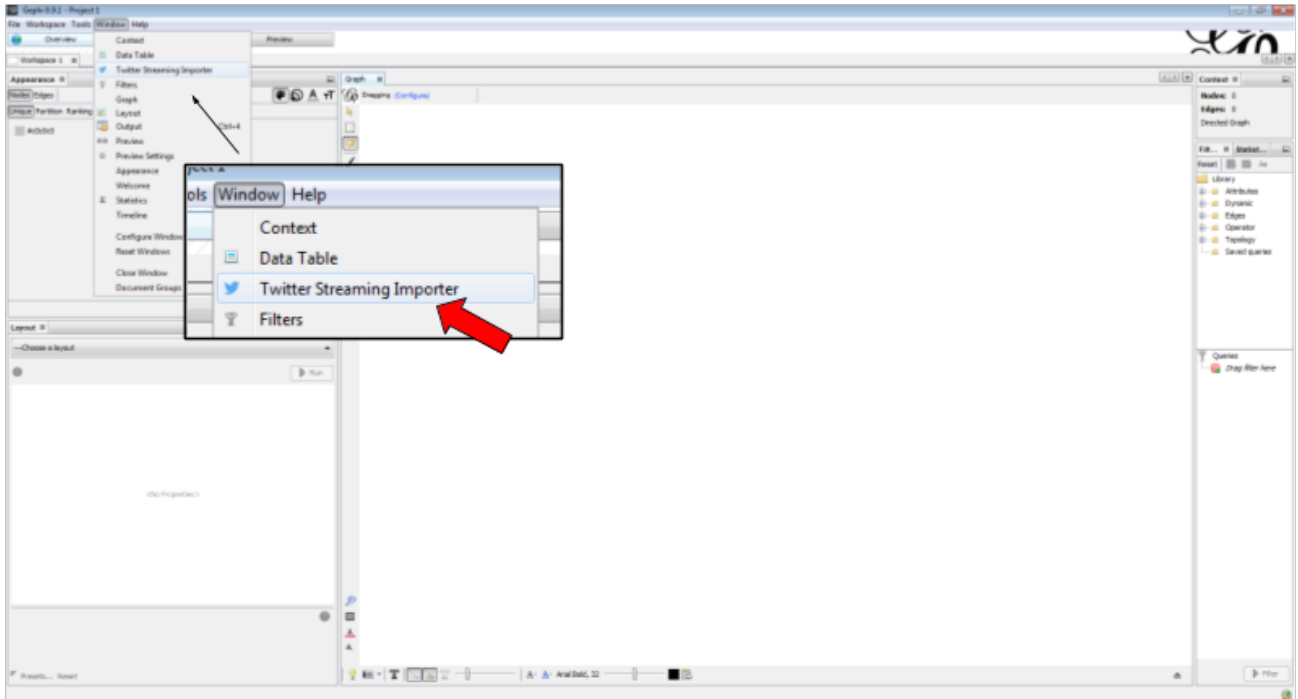


Figure 5. Display the plugin in Gephi

We need now to connect to a Twitter account. If you already have a Twitter account and you are logged in, [skip to here](#).

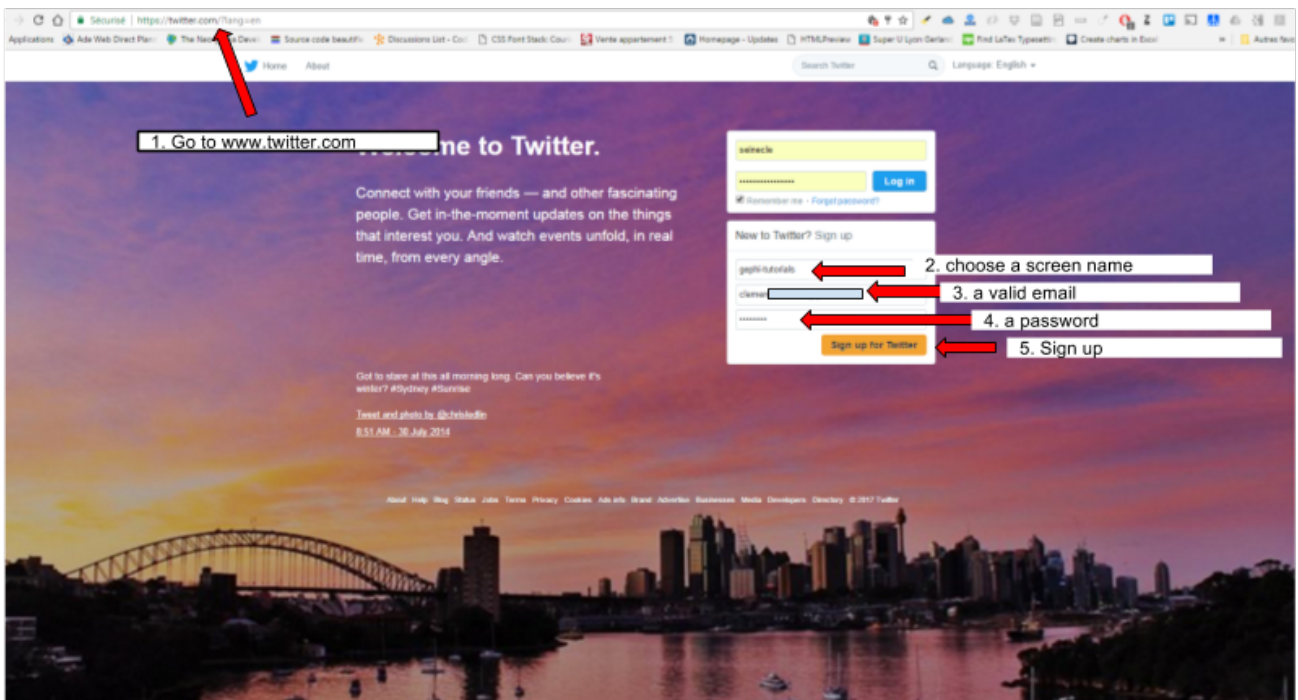


Figure 6. Creating a Twitter account

Join Twitter today.

gephi-tutorials ✓

clem... ✓

..... ✓

Sign up

By signing up, you agree to the Terms of Service and Privacy Policy, including Cookie Use. Others will be able to find you by email or phone number when provided.

[Advanced options](#)

Just click here

Figure 7. Confirmation of the sign-up



You have received an email by Twitter about the sign up. At some point (but now would be a good time), you must click on the link in this email to confirm it.

Verify your phone.

We sent a code to +33 6 [redacted] Enter it below so we know you're a real person.

Verification code

Verify

[Re-send SMS](#) [Edit phone number](#)

Enter here the code you received via text messaging

Figure 8. Enter the verification code you received by sms

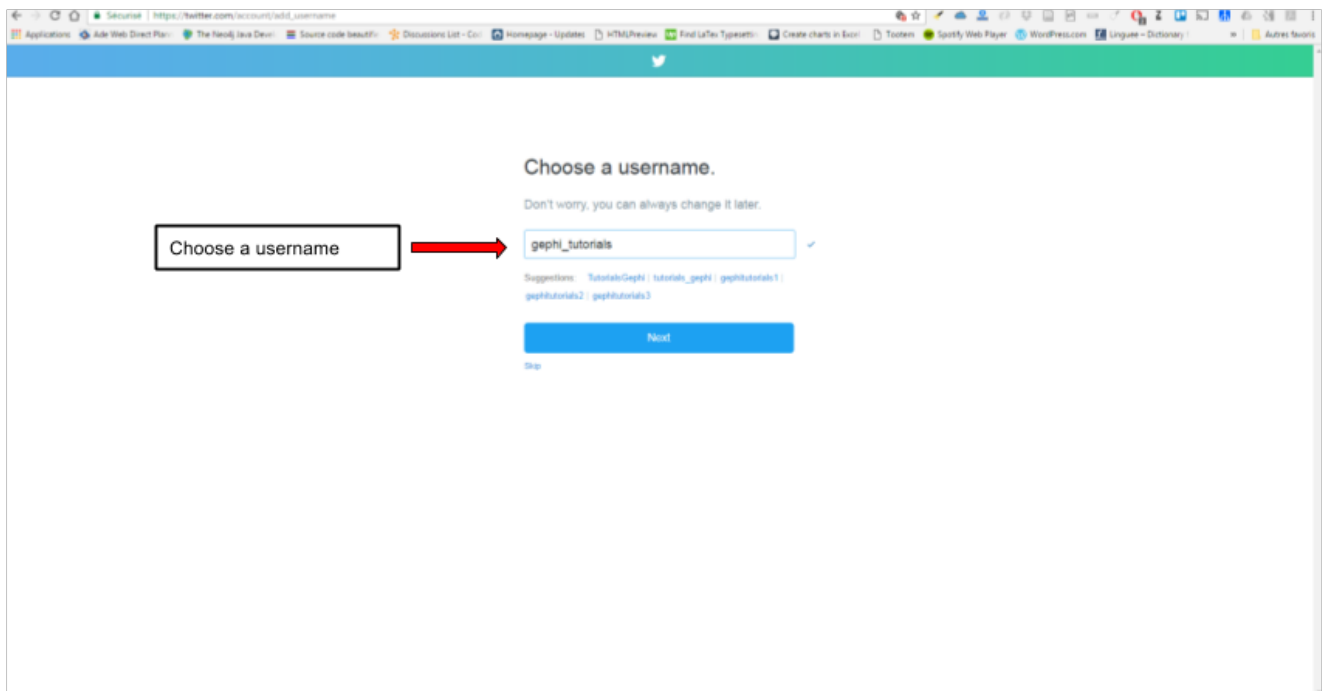


Figure 9. Choose a username

The next screens of the sign up for Twitter are not important for us. Just follow the steps until you get to the page showing your Twitter profile, meaning the setup is finished.

You now have a Twitter account. We need to create a Twitter app which will authorize us to collect tweets automatically via Gephi

Go to <https://apps.twitter.com>:

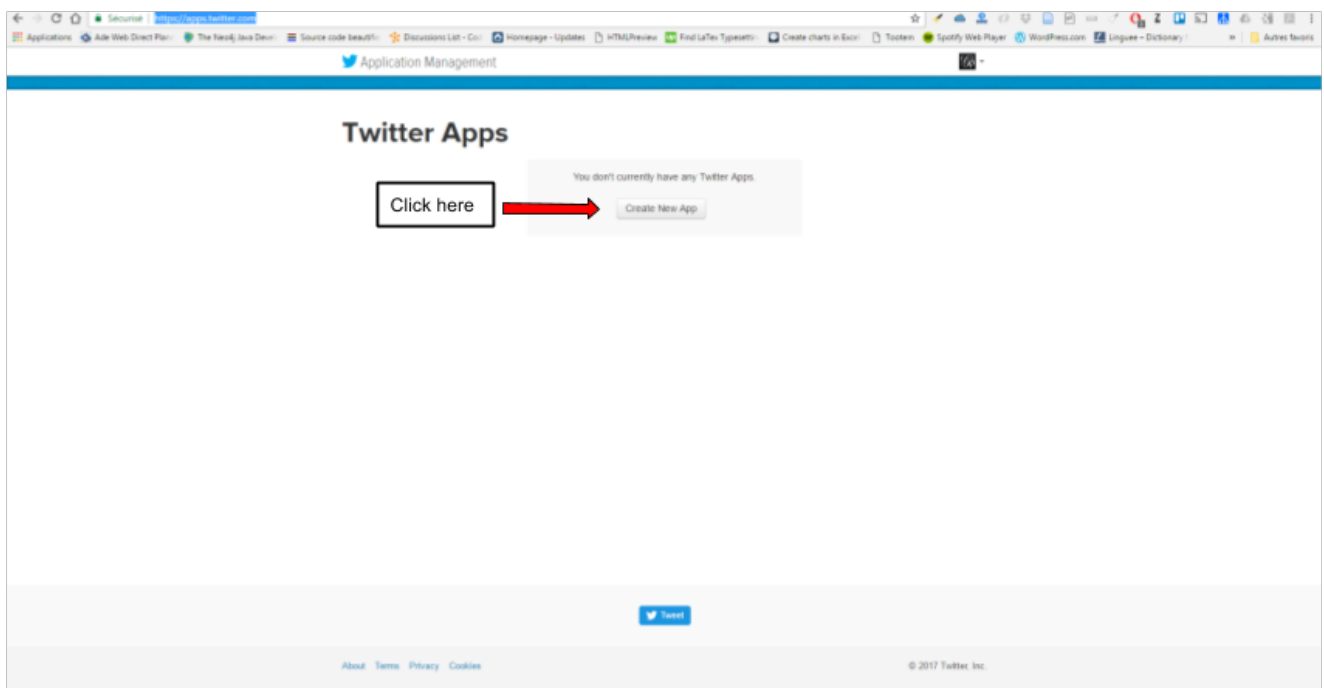


Figure 10. Create a new app

Create an application

Application Details

Name *
Your application name. This is used to attribute the source of a tweet and in user-facing authorization screens. 32 characters max.

Description *
Your application description, which will be shown in user-facing authorization screens. Between 10 and 200 characters max.

Website *
Your application's publicly accessible home page, where users can go to download, make use of, or find out more information about your application. This fully-qualified URL is used in the source attribution for tweets created by your application and will be shown in user-facing authorization screens. (If you don't have a URL, yet, just put a placeholder here but remember to change it later.)

Callback URL *
Where should we return after successfully authenticating? OAuth 1.0a applications should explicitly specify their oauth_callback URL on the request token step, regardless of the value given here. To restrict your application from using callbacks, leave this field blank.

Developer Agreement
☐ Yes, I have read and agree to the [Twitter Developer Agreement](#).

Create your Twitter application

Annotations:

- Choose a name, can be random → (points to Name field)
- Random description → (points to Description field)
- Here put: <http://www.example.com> (don't forget the "http://") → (points to Website field)
- Leave this field empty → (points to Callback URL field)
- Read the agreement carefully: publishing, sharing or selling Twitter data comes with strict conditions! → (points to Developer Agreement)
- Finally, click here → (points to Create your Twitter application button)

Figure 11. Fill in the fields

INFO: Almost there!!

gephi-tutorial-example

Details | **Settings** | **Keys and Access Tokens** | **Permissions**

Organization
Information about the organization or company associated with your application. This information is optional.

Application Settings
Your application's Consumer Key and Secret are used to authenticate requests to the Twitter Platform.

Access level Read and write (modify app permissions)

Consumer Key (API Key) H25CjzUvArU8tL15KwHEDG (manage keys and access tokens)

Callback URL None

Callback URL Locked No

Sign in with Twitter Yes

App-only authentication <https://api.twitter.com/oauth2/token>

Request token URL https://api.twitter.com/oauth/request_token

Authorize URL <https://api.twitter.com/oauth/authorize>

Annotation: Click on "Keys and Access Tokens" → (points to the tab)

Figure 12. Click on Keys and Access Tokens

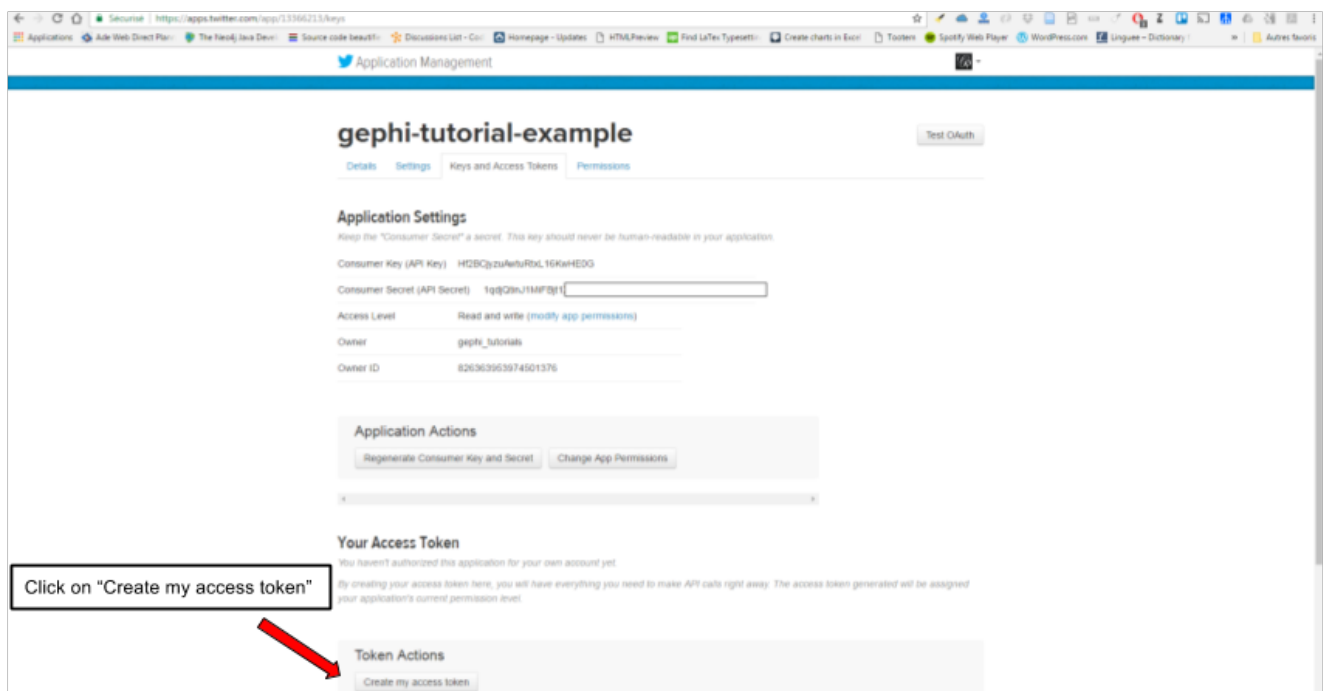


Figure 13. Click on Create my access token

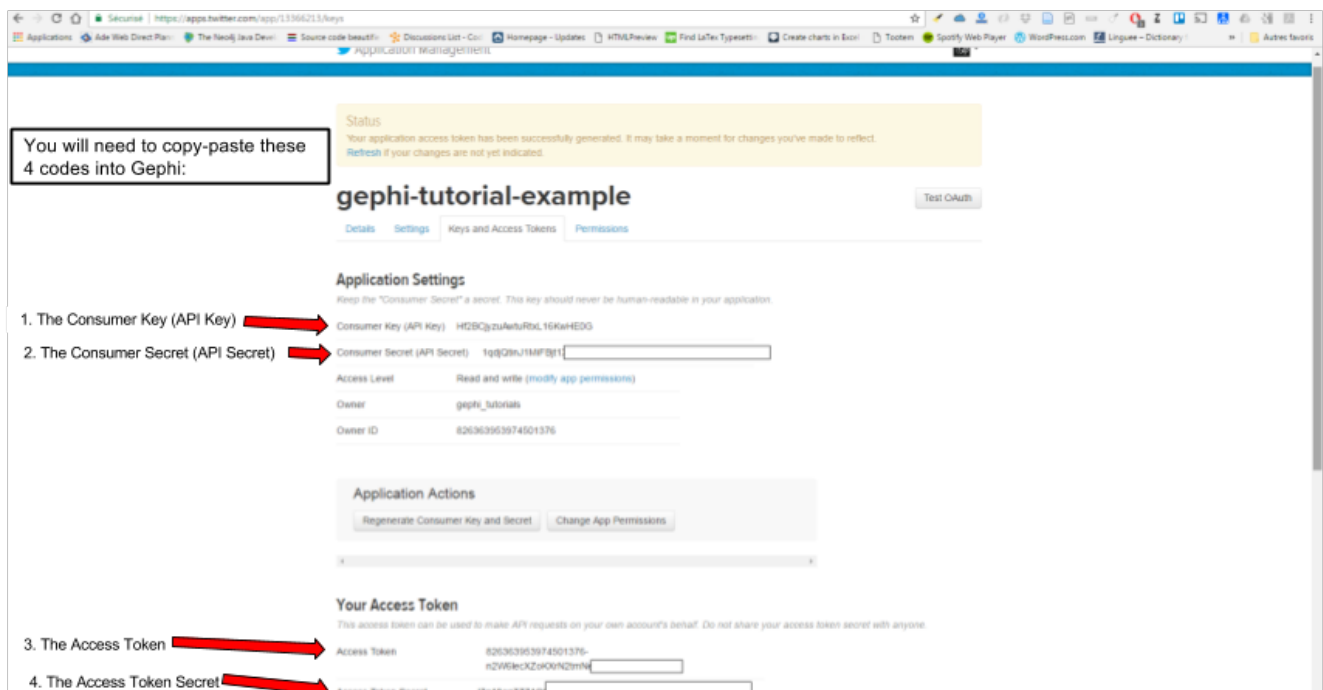


Figure 14. Copy paste these codes into Gephi

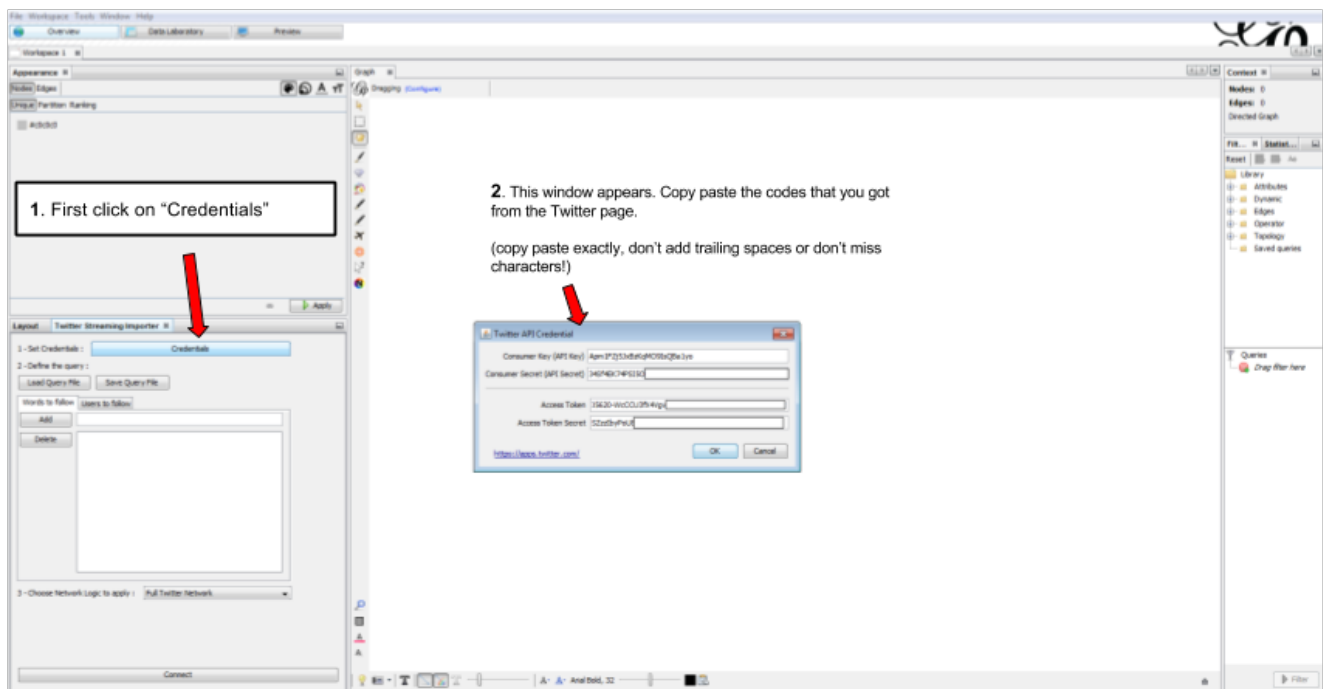


Figure 15. Where to copy paste the codes in Gephi

👍 Well done. This setup had just to be done once. Your credentials are saved and will be loaded at each run. Now we can start using the plugin.

Using the plugin

With the **Words to follow** tab, you will be able to follow one or multiple words. For **hashtags**, just enter the word without the hash in front of it. (e.g if you want to follow '#Gephi' just add 'Gephi')

With the **Users to follow** tab, you will be able to follow the activity of one or multiple users. Any tweet from this user or retweeting or mentioning the user will be captured.

You can combine the 2 tabs, the tweet collected will be matching either the Words to follow query **or** the User to follow query

The **Load Query File** and **Save Query File** buttons are here to save your search queries in a file or to load it from a file. It's convenient if you have a long list of words / users.

Network Logic

A **Network Logic** means: what should be done with an incoming tweet? How to transform it as a set of nodes and edges?



Figure 16. Selection of the network logic

There are for the moment 3 Network Logics to choose from:

- Full Twitter Network : This will represent **all** entities (User, Tweet, Hastags, URL, Media, Symbol etc...) as a graph.
- User Network : This will represent the interaction between users. Any mentions, retweets or quotes between 2 users, will be represented. The size of the edge represent the number of interactions between 2 users.
- Hashtag Network : This will create the network of hashtag.

In the following, we use the network logic "User Network":

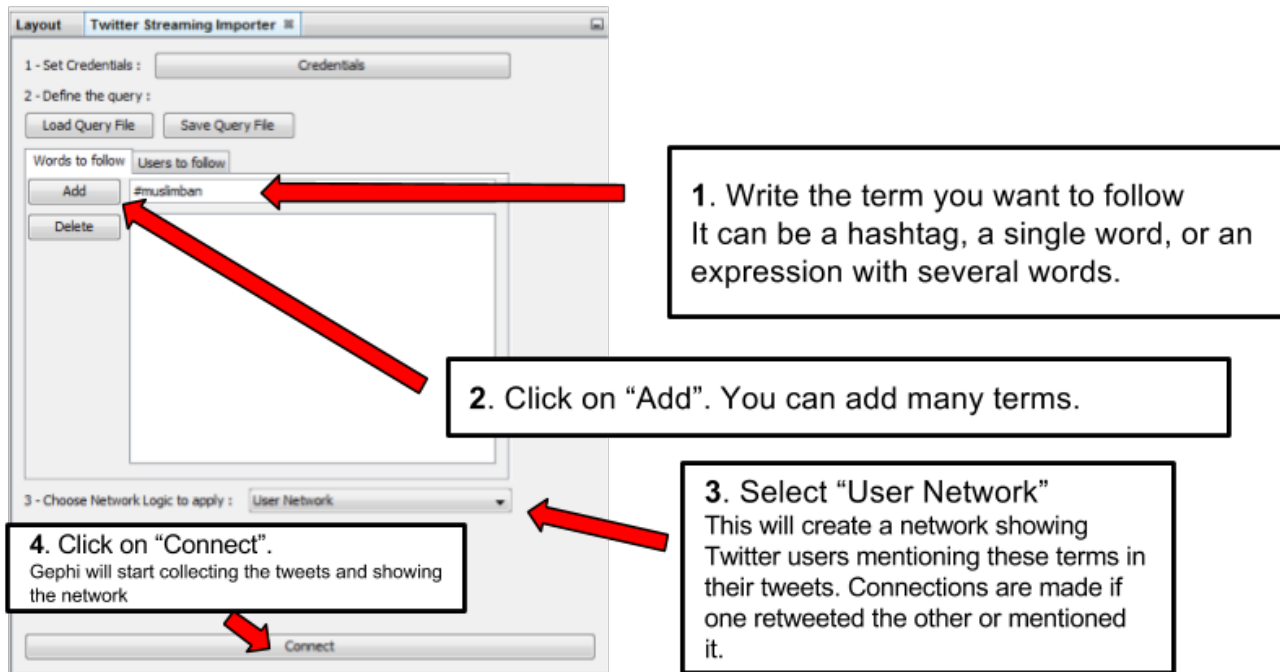


Figure 17. Adding terms and launching the collection of tweets

Be careful that if you choose very common terms, tweets will arrive fast and in large volumes.

If you don't have enough memory (RAM) on your computer, this could make it crash.

Click on "disconnect" to stop the collection of tweets.

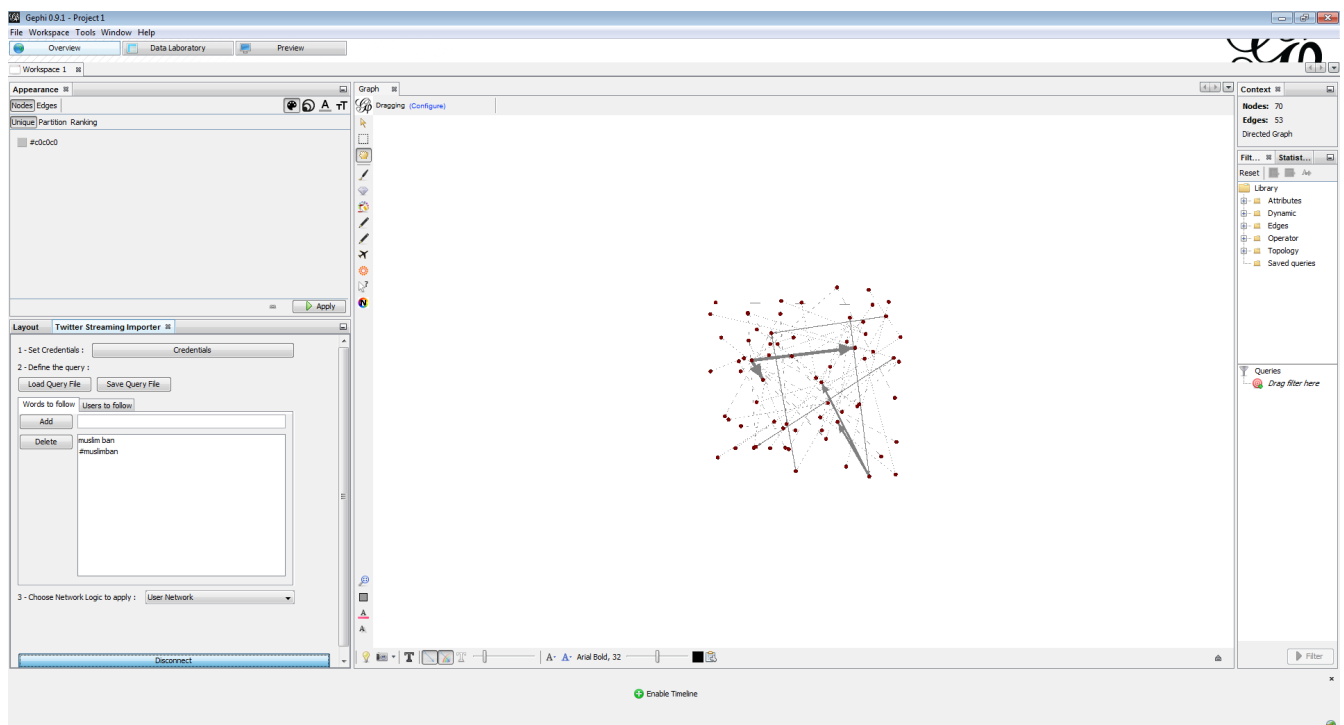


Figure 18. Users mentioned in or retweeting tweets citing the search terms

You can see the users organize spatially in real time, while the tweets are being collected.

Just run Force Atlas 2 in the "Layout" panel. This will not interrupt the collection of tweets.

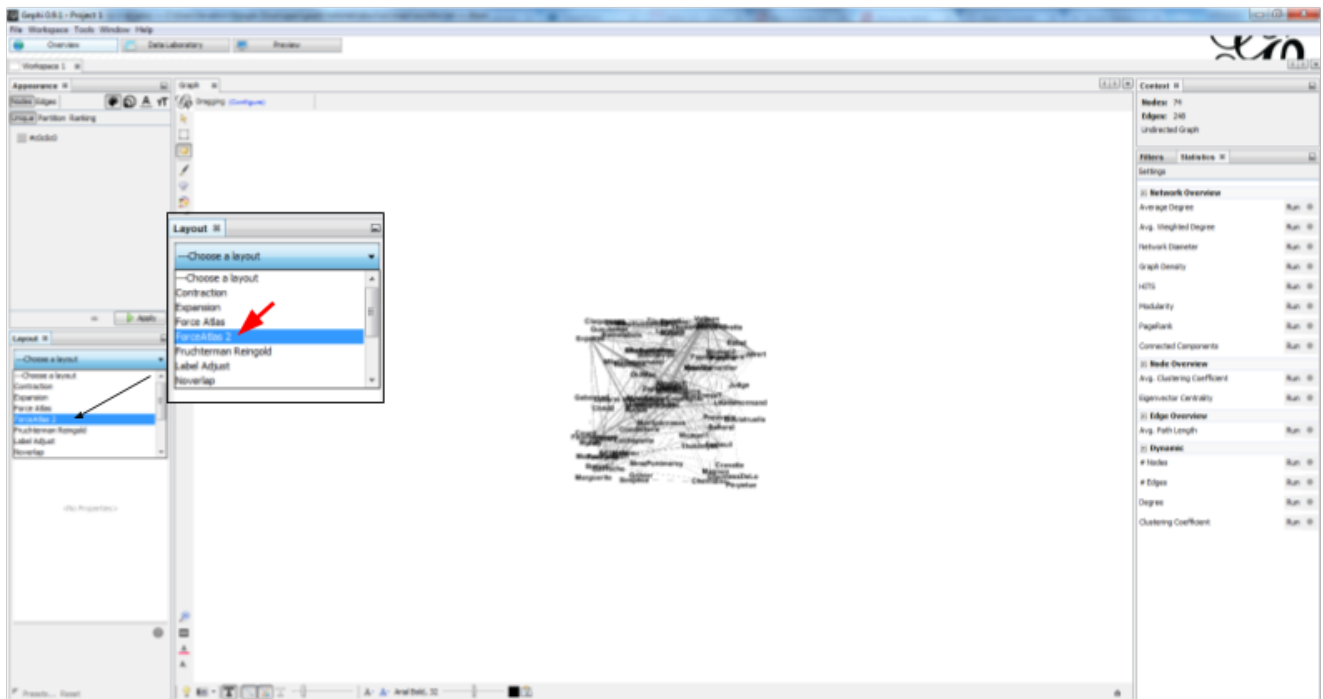


Figure 19. Running the Force Atlas layout while the tweets are arriving

Shift to the **data laboratory** to view the data collected, in a spreadsheet format:

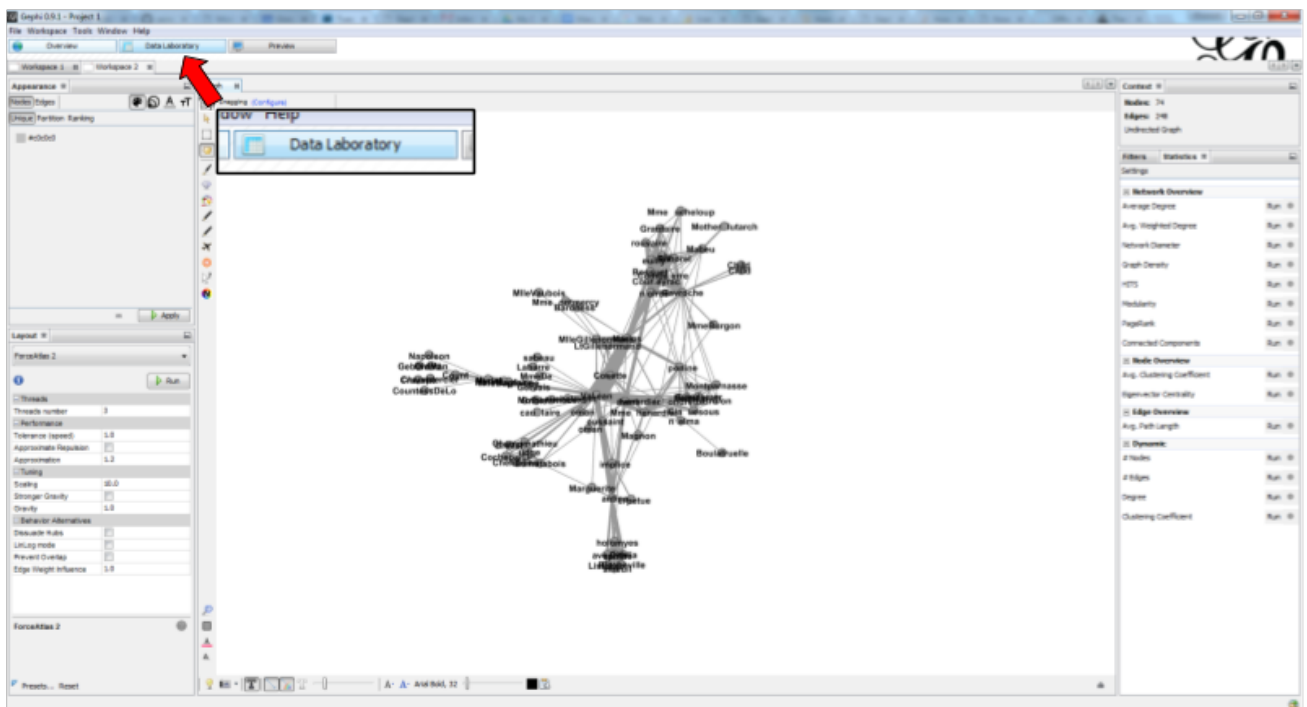


Figure 20. Switching to the data laboratory view

There, you can export nodes and relations ("edges") as csv files by clicking on "Export table".

Timeline

When you are finished with your stream, you can use the **timeline** feature to replay the stream of data and look at a particular time window.

This feature is still experimental and is highly subject to bug.

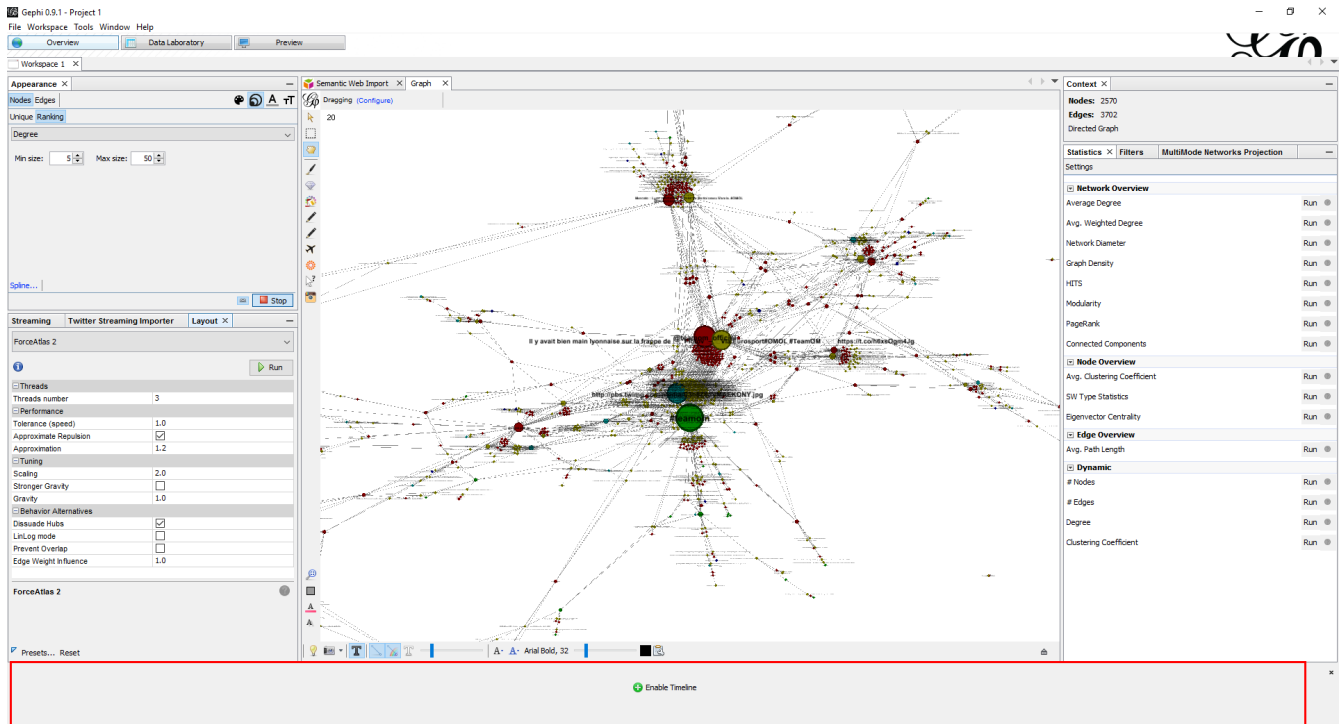


Figure 21. How to activate the Timeline

[timeline] | [en/twitter-streaming-importer/timeline.gif](https://en.twitter-streaming-importer/timeline.gif)

Figure 22. Example of Timeline

The end

Visit [the Gephi group on Facebook](#) to get help,

or visit [the website](#) for more tutorials