



# *Knowledge*

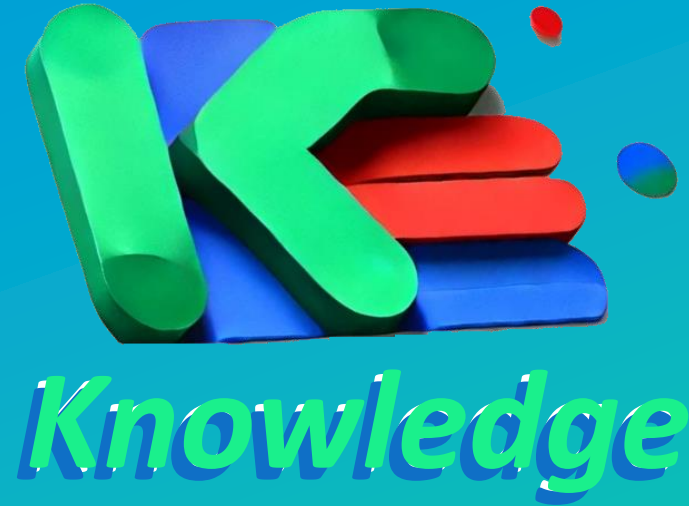
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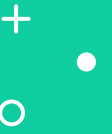
- **Intro:**

*TEDx DATANAUTS*

*May 29<sup>th</sup>, 2014*

- **The Offline Bookmarking Gap**
- **The Processing Workflow**
  - Tag generation
  - Graph drawing





# TEDx Datanauts

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# DATA NAUTS

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29 MAY  
KRONBERG

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Kenneth Cukier:

# Big data is better data



**TEDSalon Berlin 2014** · 15:51 · **Filmed Jun 2014**

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Knowledge



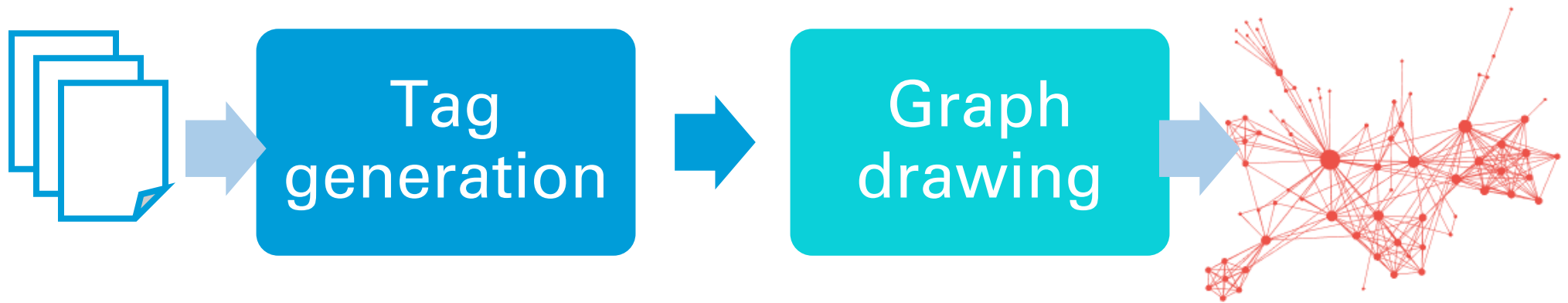
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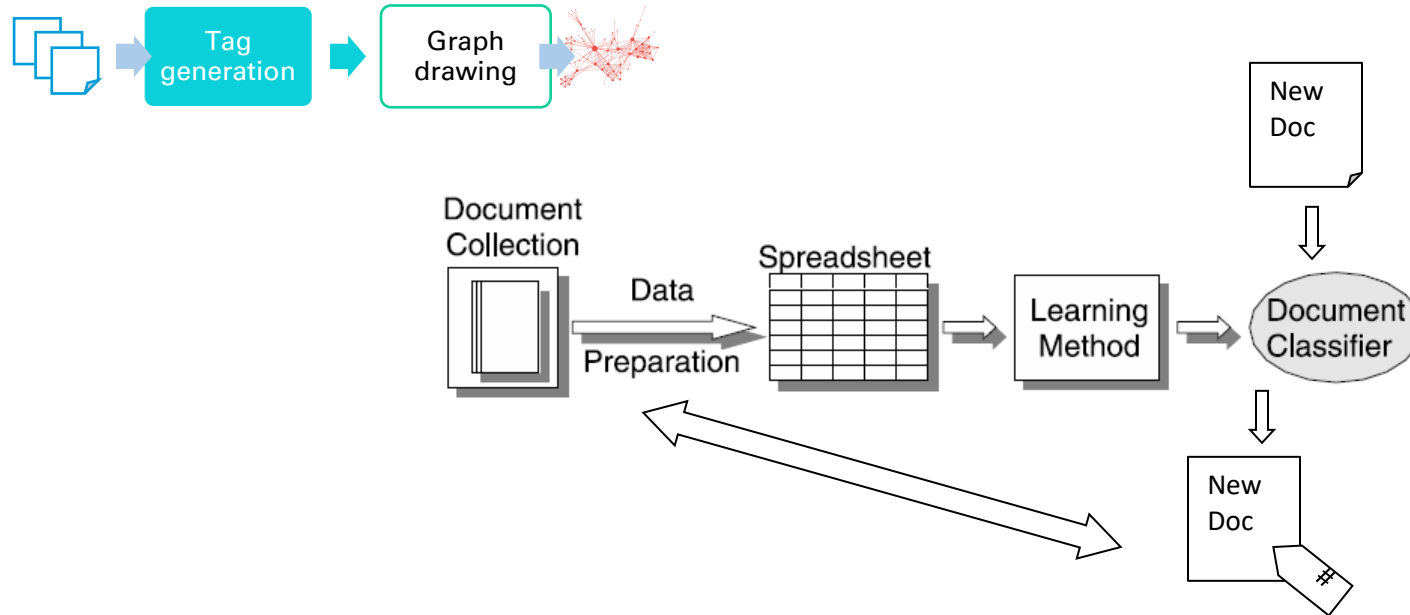
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# Processing Workflow





# Tag generation



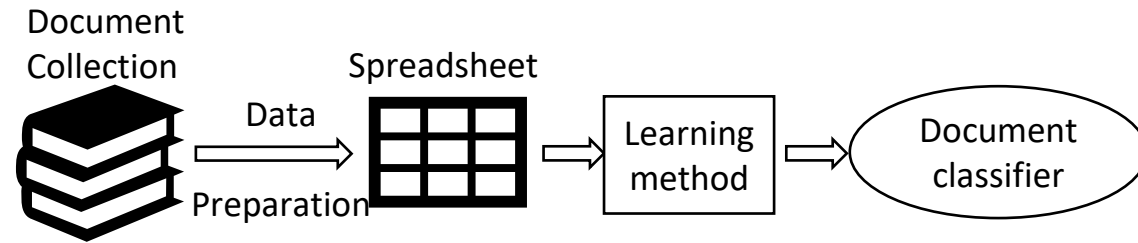
## Advantages:

- Predictive generation of tags
- Link to the articles stored in the database with similar tags

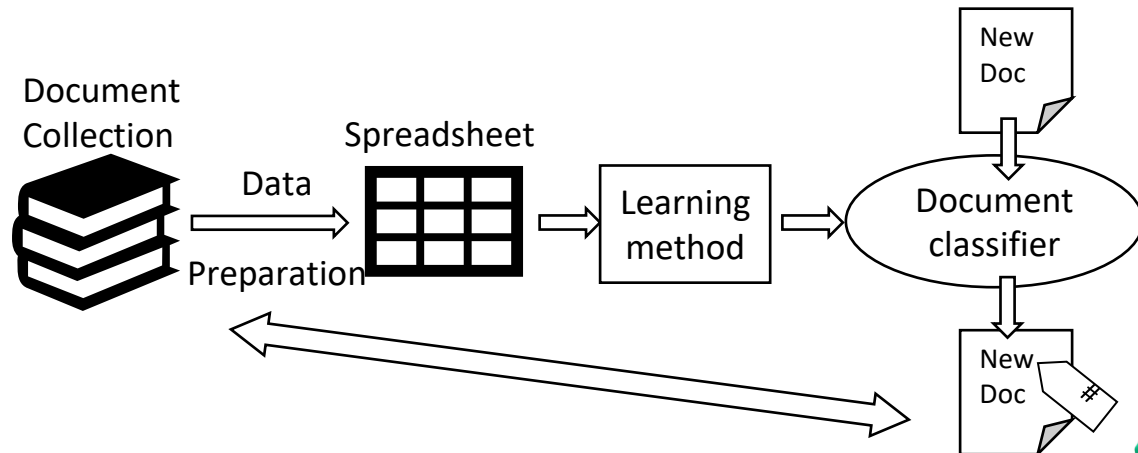
## Supervised classification

# Tag generation

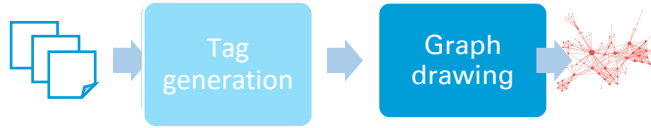
- Step 1



- Step 2



# Graph drawing



## 1. Knowledge Graph - Wikipedia, the free encyclopedia

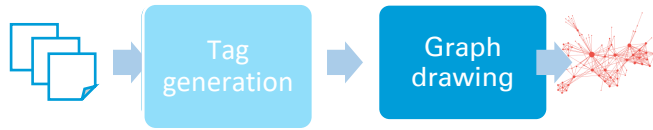
Tags: google wikipedia science

T59 =

	1	
#tag1	1	#1 <u>science</u>
#tag2	0	#2 <u>research</u>
#tag3	1	#3 <u>wikipedia</u>
#tag4	1	#4 <u>google</u>
#tag5	0	#5 <u>visualisation</u>



# Graph drawing



$$Z55 = T59 * T95$$

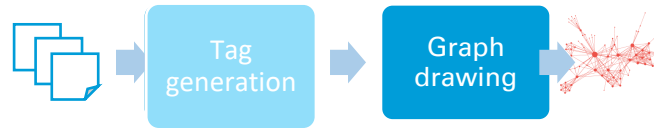
**T59 =**

	1	2	3	4	5	6	7	8	9
#tag1	1	1	1	0	0	1	0	1	0
#tag2	0	0	1	0	1	1	0	0	0
#tag3	1	1	0	0	0	0	0	0	1
#tag4	1	1	0	0	0	0	0	0	1
#tag5	0	0	0	1	1	1	1	1	0

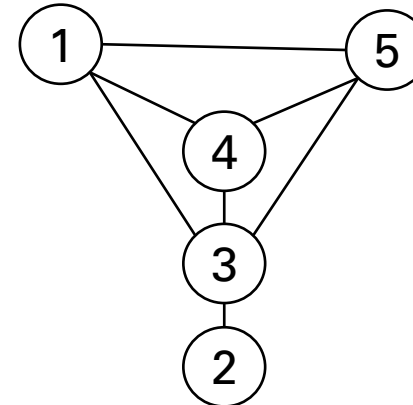
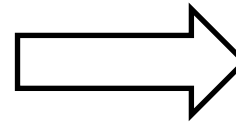
1	0	1	1	0
1	0	1	1	0
1	1	0	0	0
0	0	0	0	1
0	1	0	0	1
1	1	0	0	1
0	0	0	0	1
1	0	0	0	1
0	0	1	1	0

5	2	2	2	2
2	3	0	0	2
2	0	3	3	0
2	0	3	3	0
2	2	0	0	5

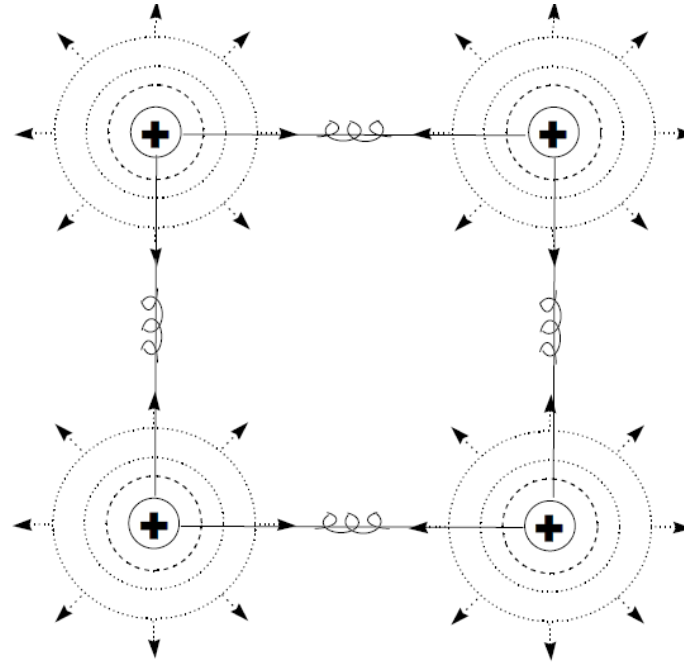
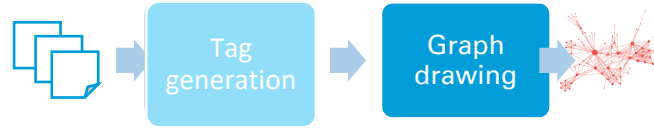
# *From adjacency matrix to Graph*



0	0	1	1	1
0	0	1	0	0
1	1	0	1	1
1	0	1	0	1
1	0	1	1	0



# *Force-directed Graph drawing*





*Thank You*