

MLTDL - More Like This for Digital Libraries

What is More Like This?




Information Discussion (0) Files

Article

Title	Searches with multilepton final states
Author(s)	Martinez Rivero, Celso (Cantabria Inst. of Phys.)
Collaboration	for the ATLAS and CMS Collaborations
In:	<i>EPJ Web Conf.</i> 60 (2013) 07007
In:	1st Large Hadron Collider Physics Conference, Barcelona, Spain, 13 - 18 May 2013, pp.07007
DOI	10.1051/epjconf/20136007007
Subject category	Particle Physics - Experiment
Accelerator/Facility, Experiment	CERN LHC ; ATLAS CERN LHC ; CMS
Abstract	In this talk, the latest results from CMS and ATLAS on searches for new physics with multiple leptons in the final state are presented using up to 20/fb of data from the 8 TeV LHC run of 2012. Interpretation of results in terms of SUSY searches for production of gauginos and sleptons are shown. For RP conserving models, both \tilde{n} neutralinos and gravitinos as lightest supersymmetric particles are considered.

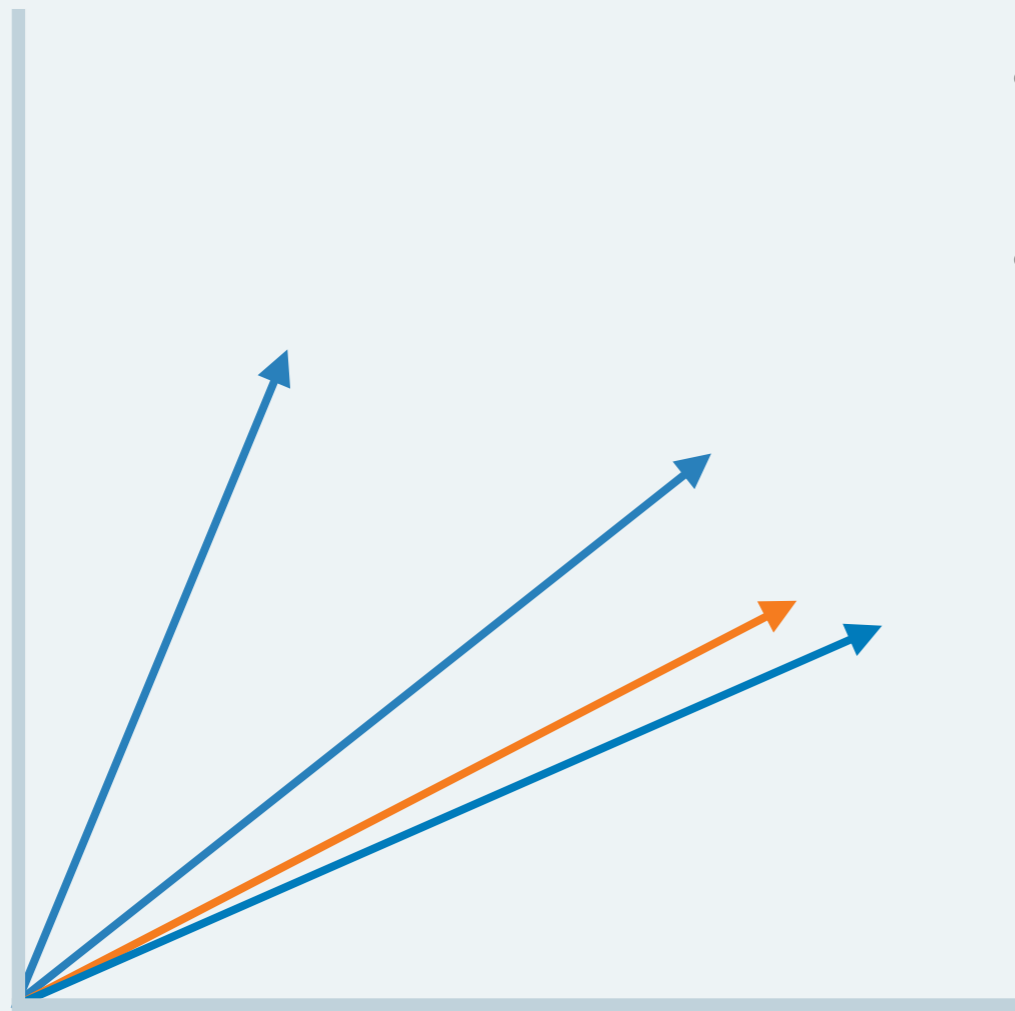
Corresponding record in: [INSPIRE](#)
Record created 2014-02-10, last modified 2014-02-10

Similar records

-  **CMS detector geometry reconstructed with the Link alignment system**
Sobrón Sañudo, M; Anoro, T; Rivero, C
-  **SUSY Searches for EWK Production of Gauginos and Sleptons at the LHC**
Farrell, S
-  **Search for R-parity violating Supersymmetry using the CMS detector**
Ratnikov, F

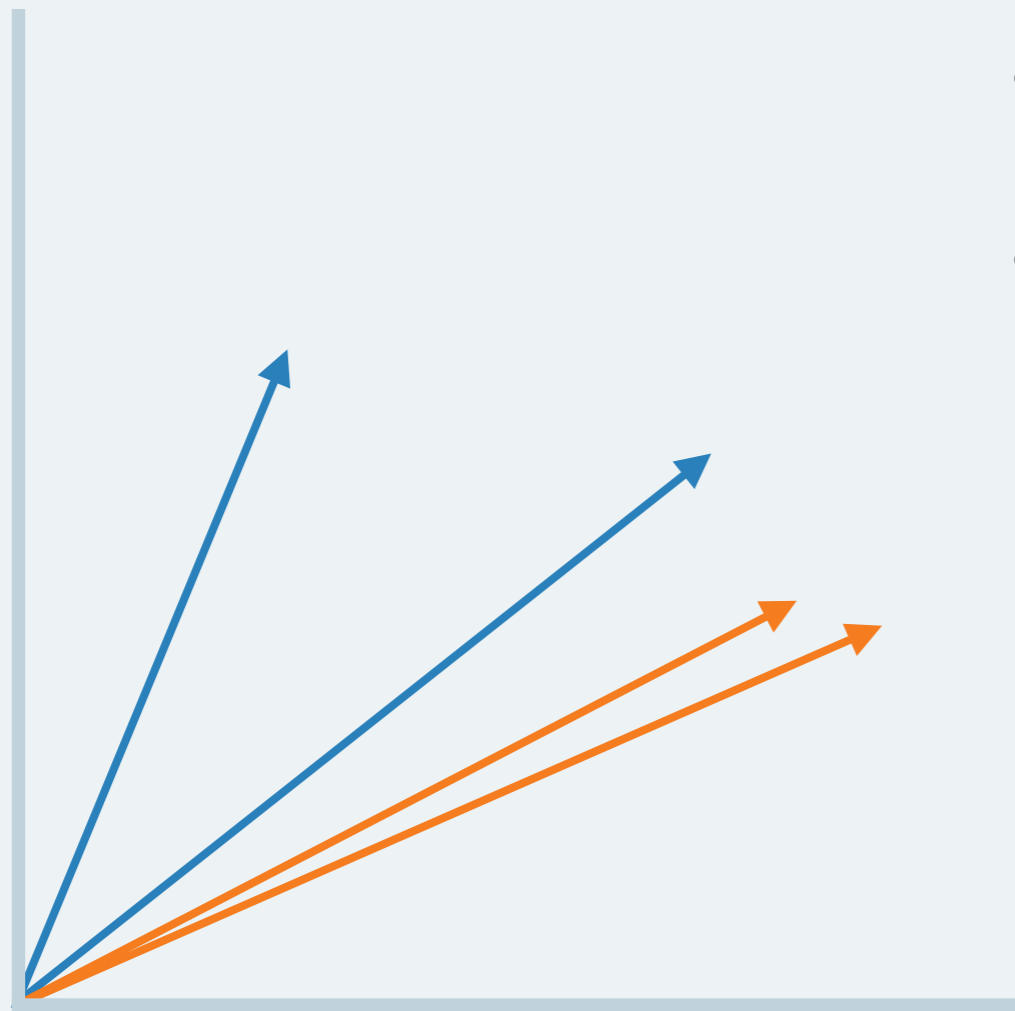
Why More Like This?

How does MLT work today?



- TF-IDF
- Term Frequency
- Inverse Document Frequency
- Supported by popular indexers
 - Solr
 - ElasticSearch

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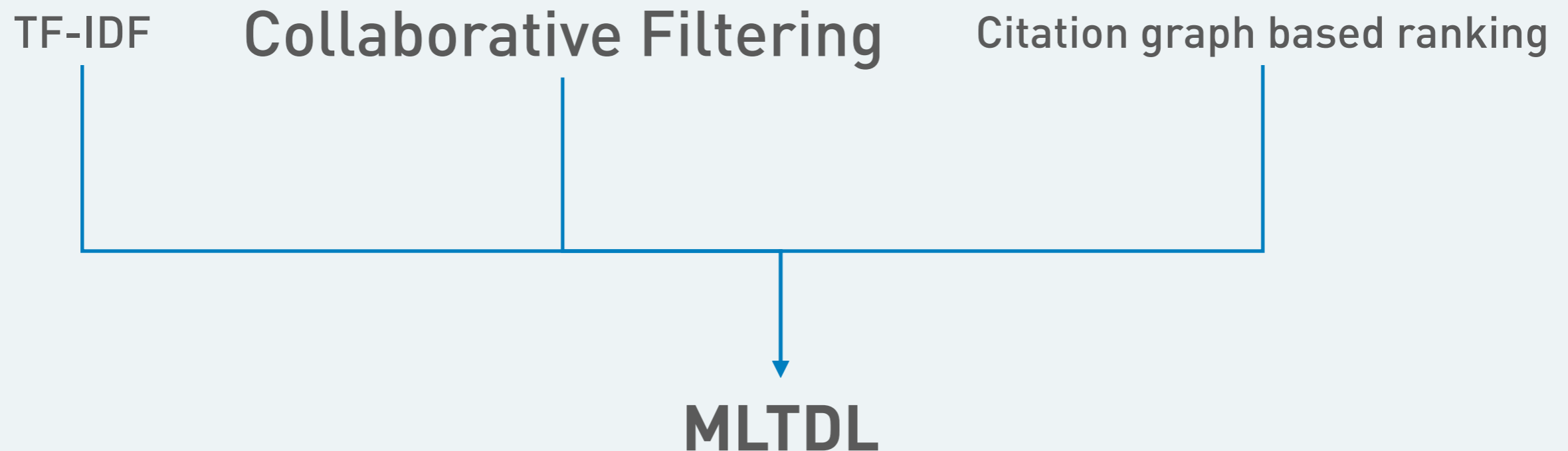
Can MLT do better?

TF-IDF:

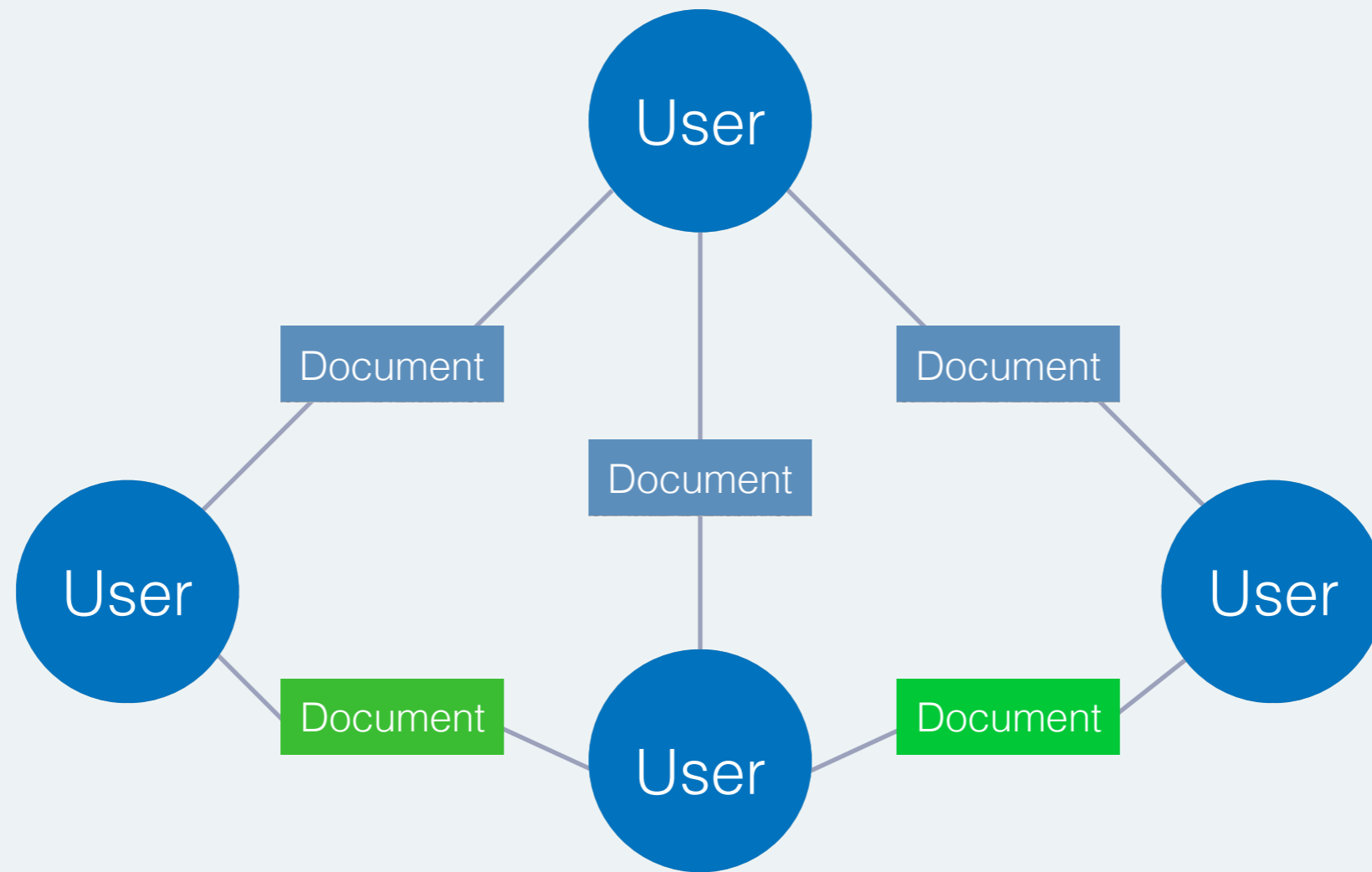
- + Efficient queries
- + Efficient indexing
- + Simple implementation
- Documents in the collection may be too similar
- No concept of user activity
- Uses only a small set of the information available

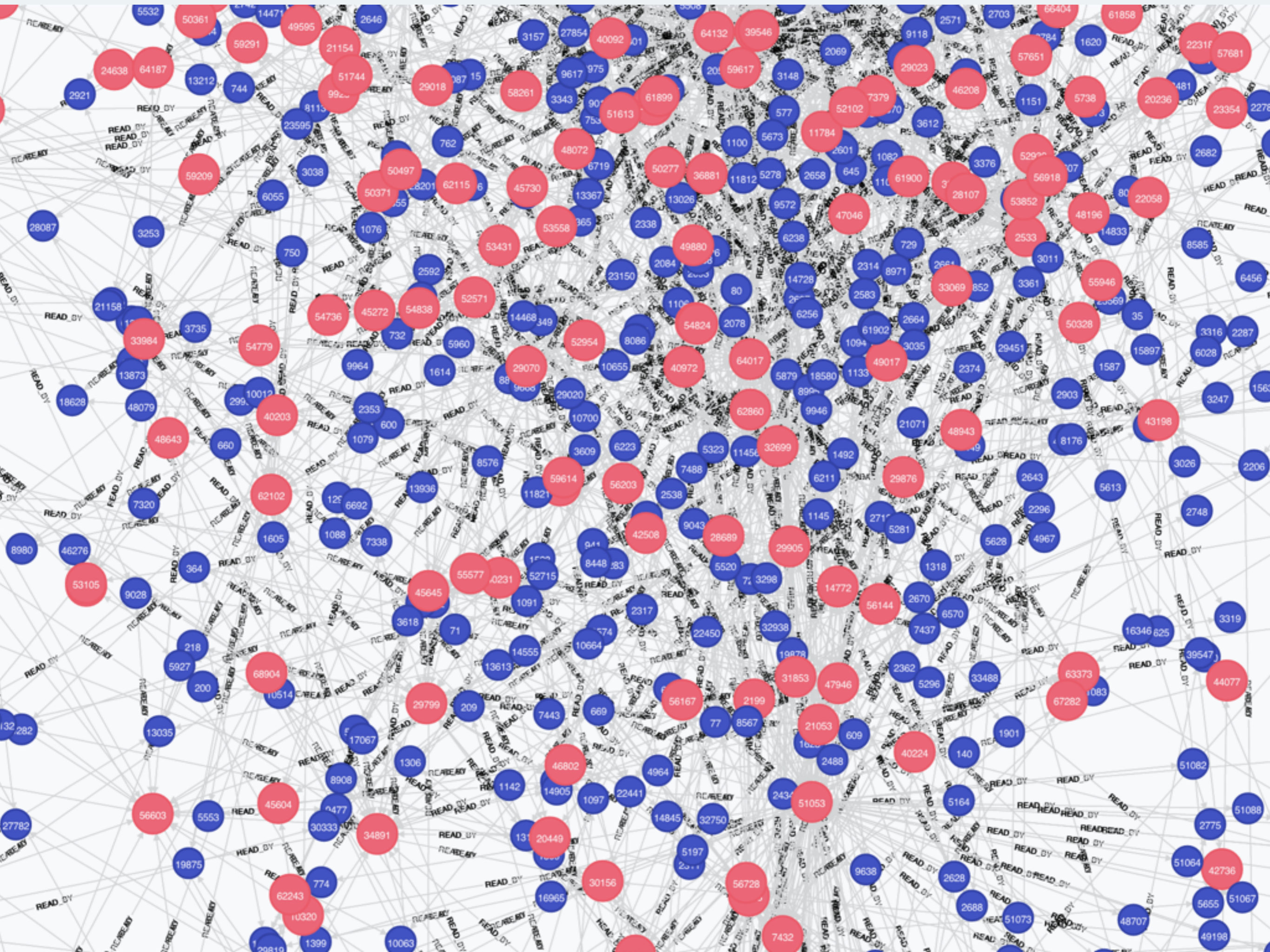
Introducing MLTDL

Utilizing the characteristic attributes of the digital library



Graph based collaborative filtering





Who are the users?



Bots



Overly curious



Librarians



Singleton



Developers



Real users

Doin' the diggin'

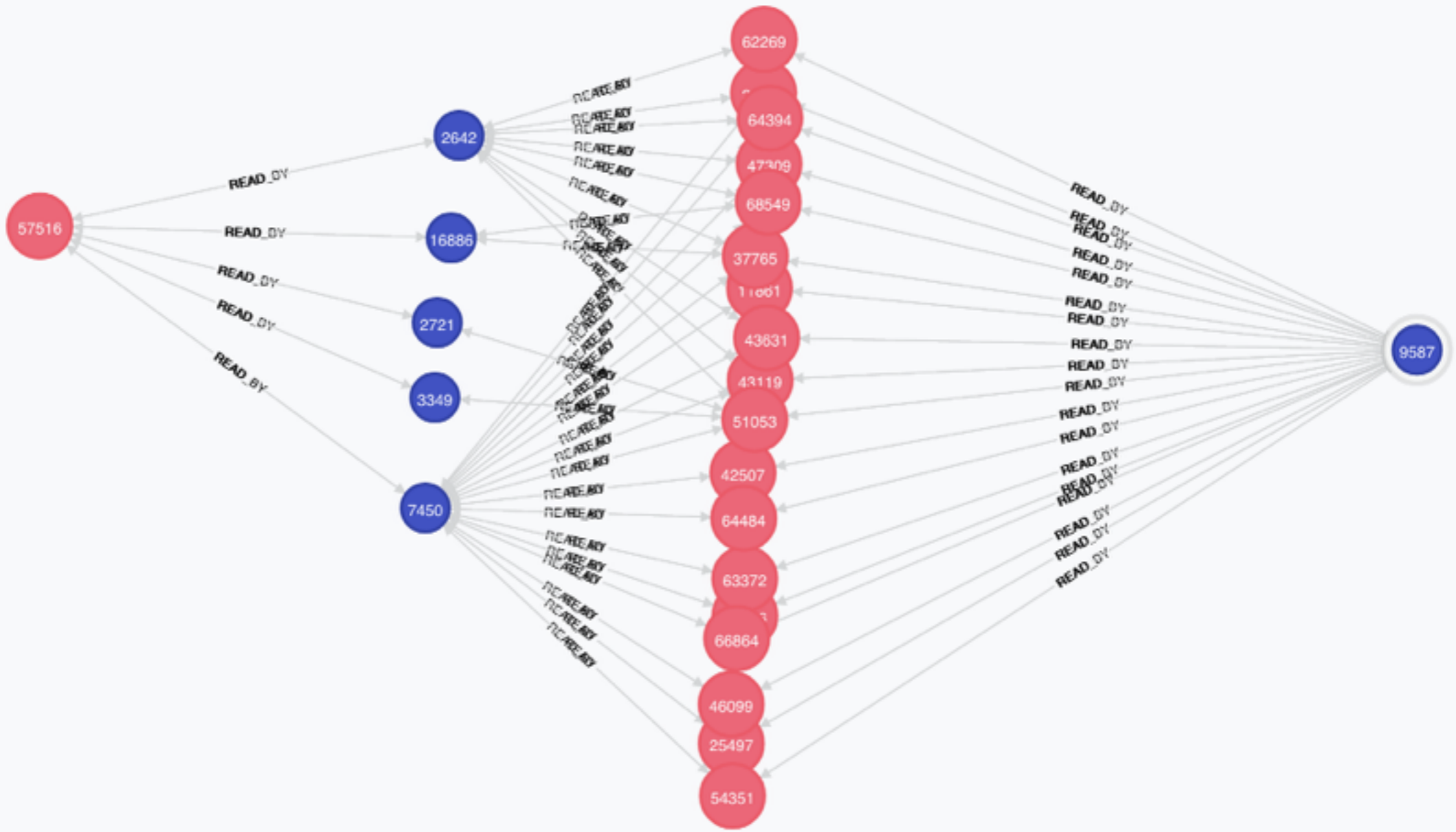
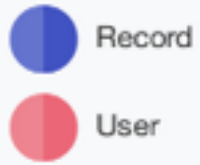


elasticsearch.

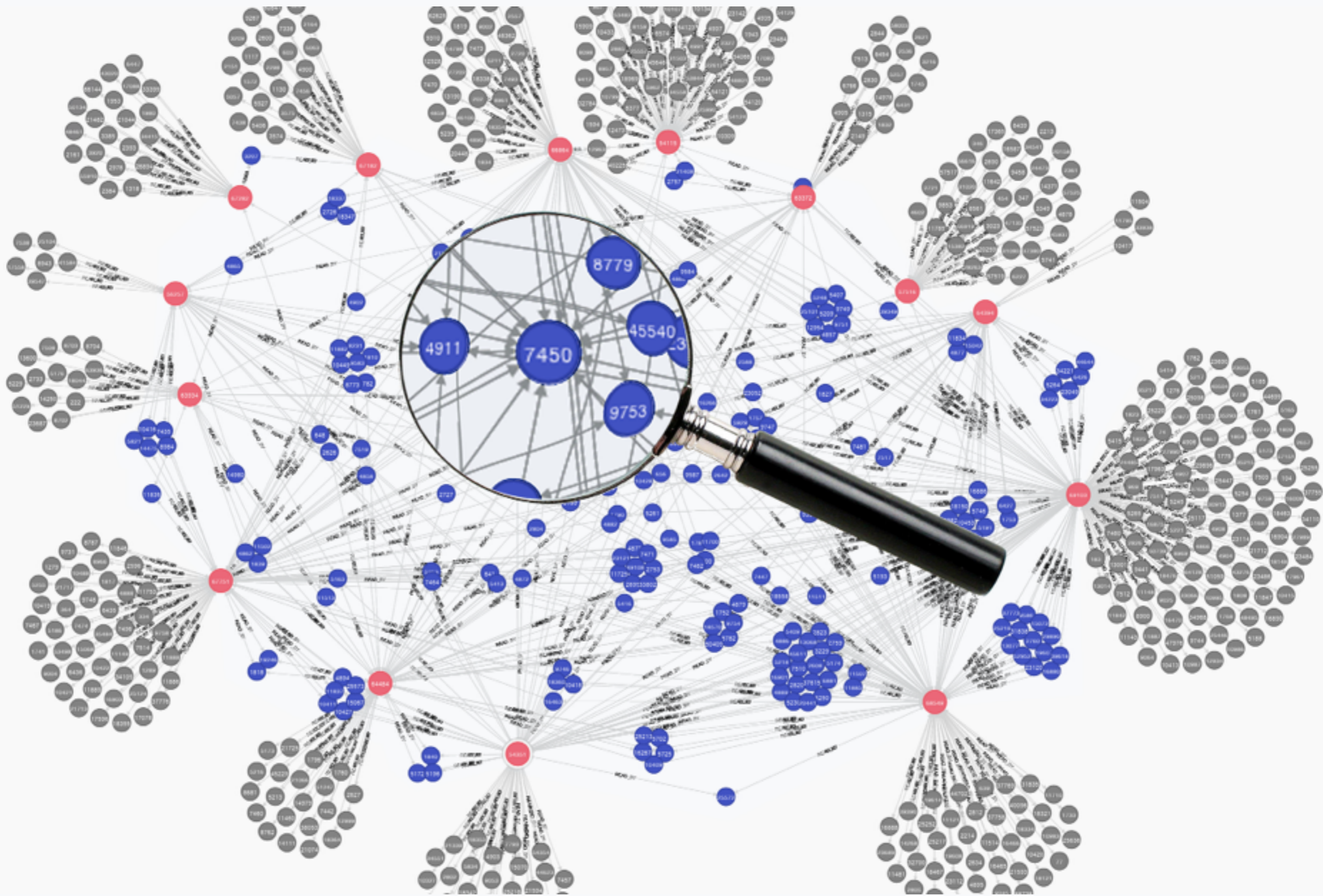


Neo4j

Automatic log
analysis and
graphing



● Record
● User



Looking at record 1344131

From one users perspective

	More Like This	Our recommendation
1	1391730	1328960
2	1235963	1391730
3	1367755	1367755
4	789847	1378511
5	1399527	
6	1319540	
7	1378511	
8	1328960	

Record 2, 4 and 6 are not present in graph

Record 5 is not relevant according to our graph

Looking at record 1344131

From another users perspective

	More Like This	Our recommendation	
1	1391730	1367755	Green
2	1235963	1399527	Orange
3	1367755	1378511	Purple
4	789847		
5	1399527		
6	1319540		
7	1378511		
8	1328960		

Record 2, 4 and 6 are not present in graph
Record 1 has been read by the user

Questions?

