Text mining in KNIME

Peter Kuna | Business Analyst

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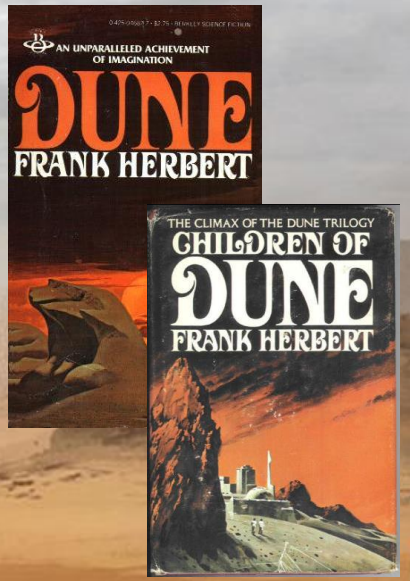
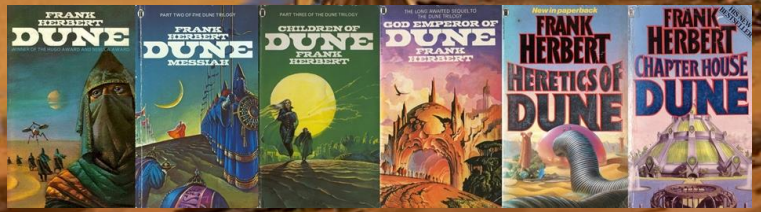
Dune series by Frank Herbert

Sci-fi series, Dates back to 1965

Over 20 books and other short stories



Lots of text to analyze.



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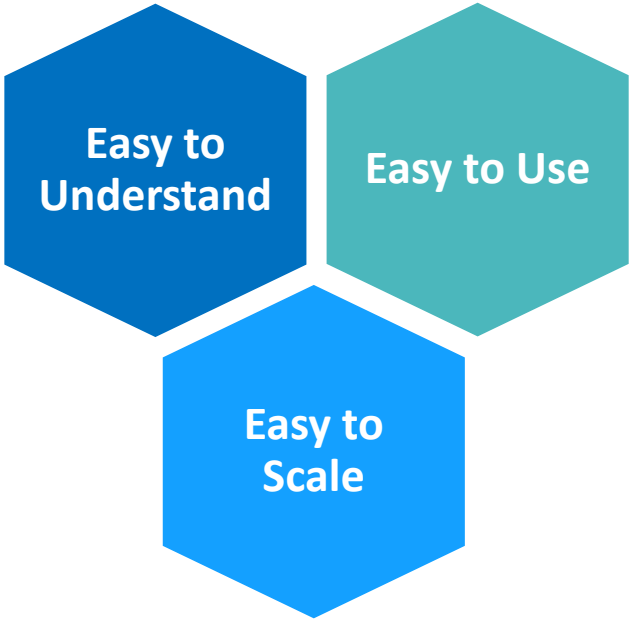
…but what is KNIME?

Open for Innovation
KNIME

An open source workflow based data mining and analysis platform.



Data Access
Data Transformation
Data Mining
Advanced Analytics
Data Visualization
Data Exploitation

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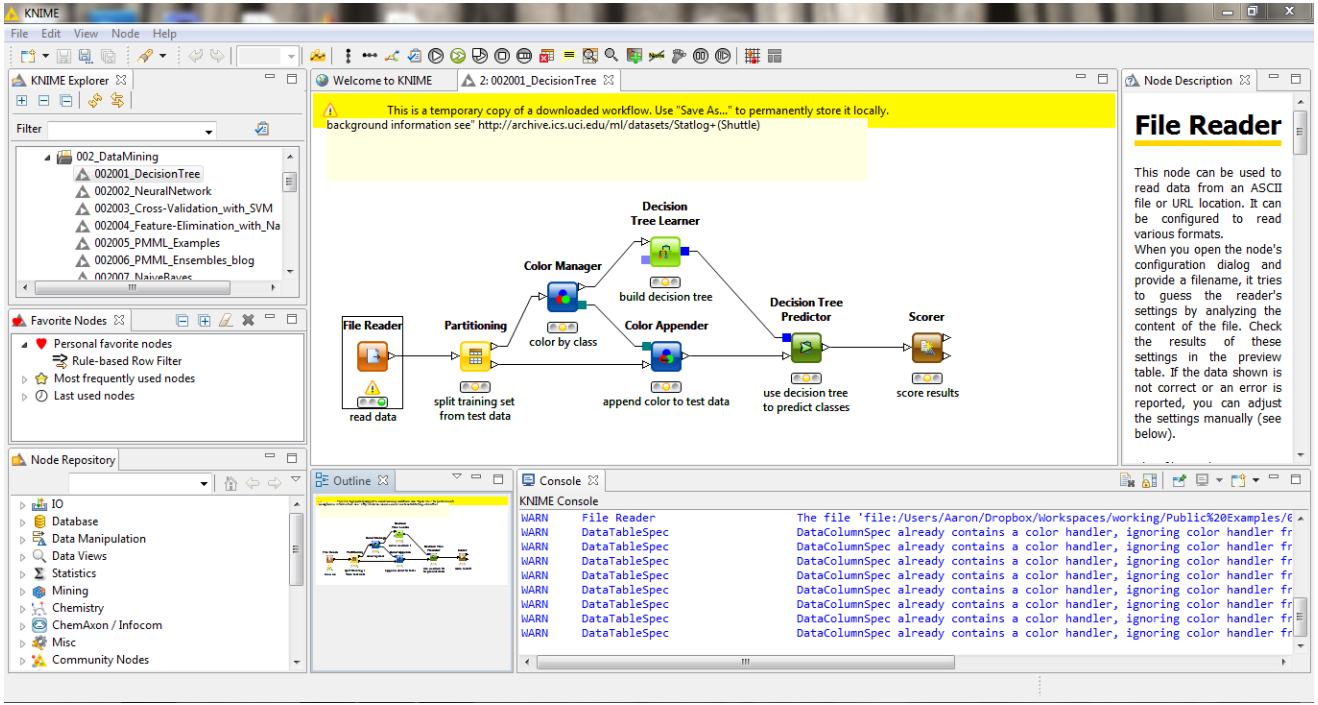
THE INTERFACE AND THE LOGIC



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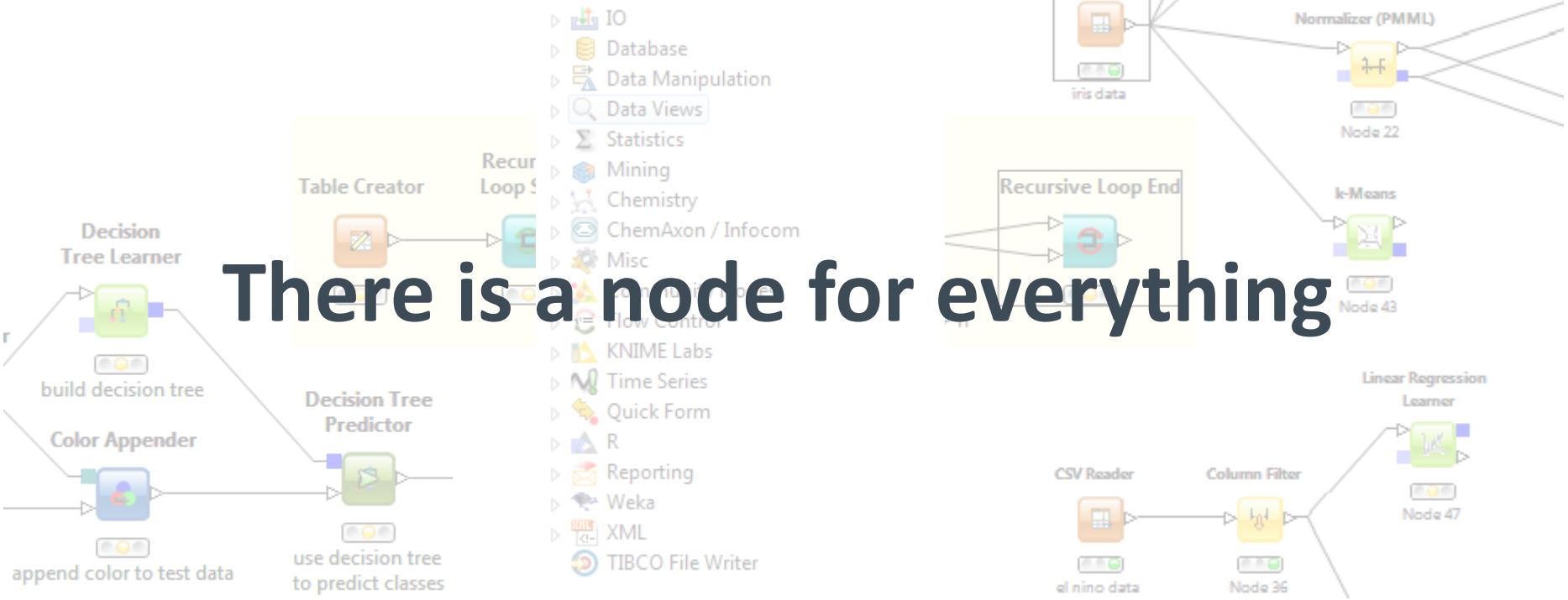
Talking about nodes…



There is a node for everything

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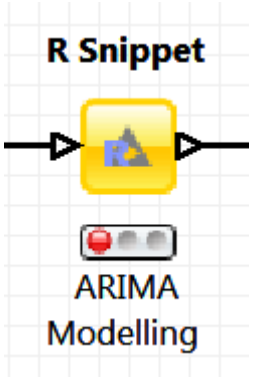
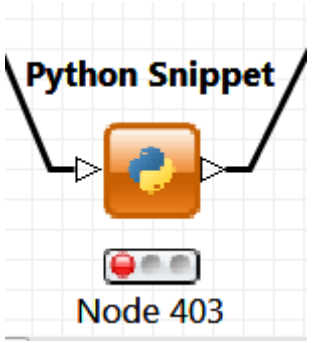
Most importantly though

R, Python, Java integration!





All in all – lots of opportunities for advanced analysis.

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Typical challenges with advanced functionalities

Lack of knowledge

- I don't know what this can mean to me

Lack of confidence

- I am not sure I can manage this

Lack of initiative

- I'm good with the current solution

In KNIME
most of the methods can be made simple and wanted.
Correlation, K-means, *seasonality* and..
TEXT MINING

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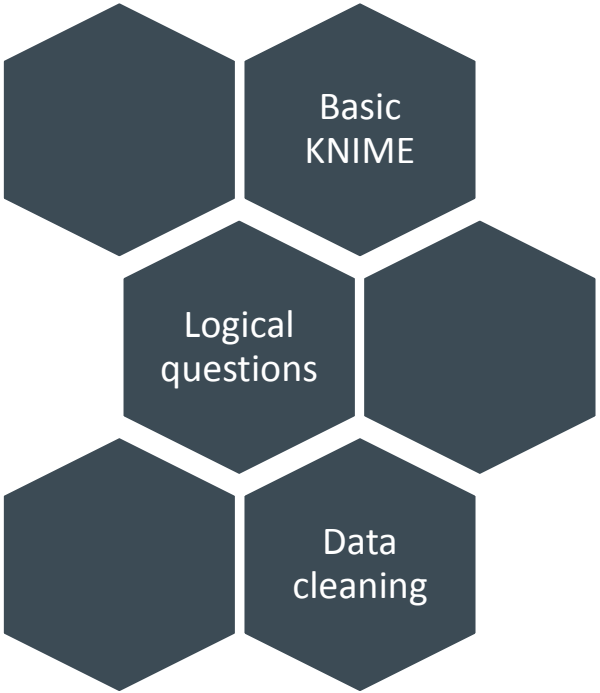
The KNIME "STARTER" KIT



- Nodes knowledge, what do connections mean..
- How important a fact is? How often does someone appear…
- Do I need punctuation? Capital letters…

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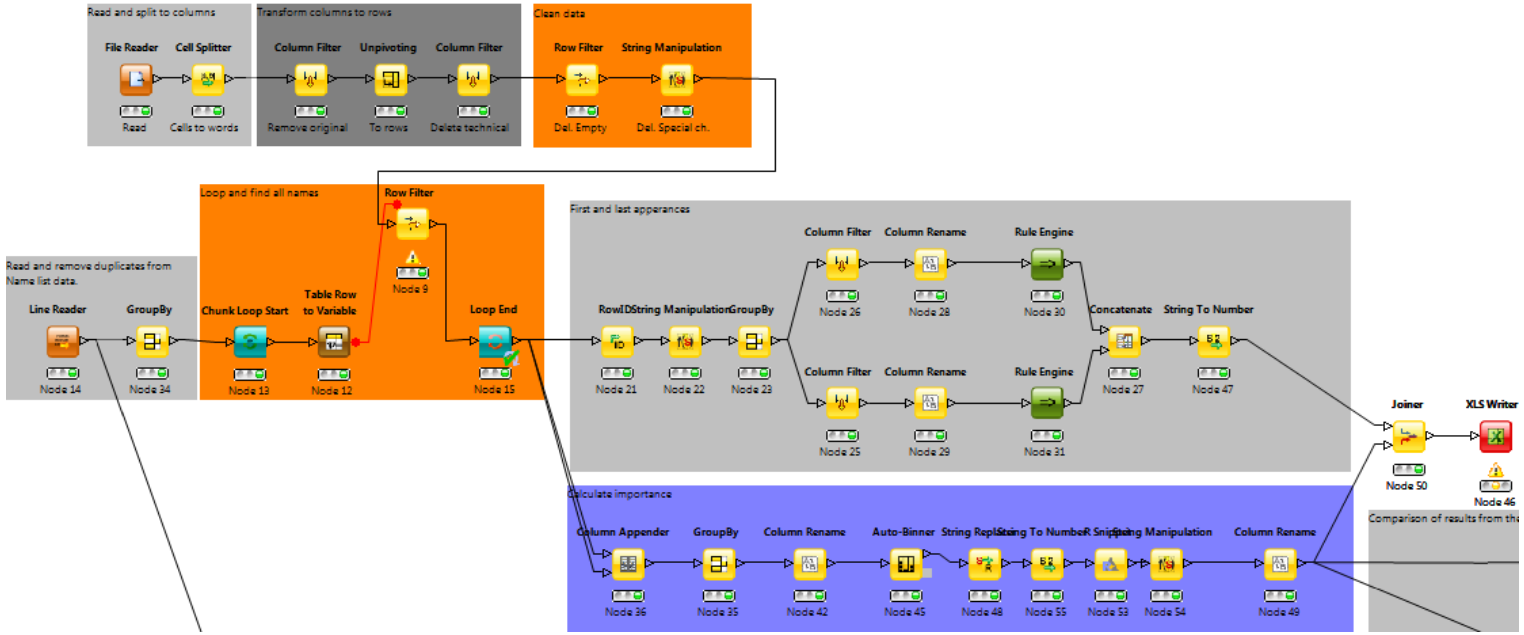
HOW MY WORKFLOW LOOKS



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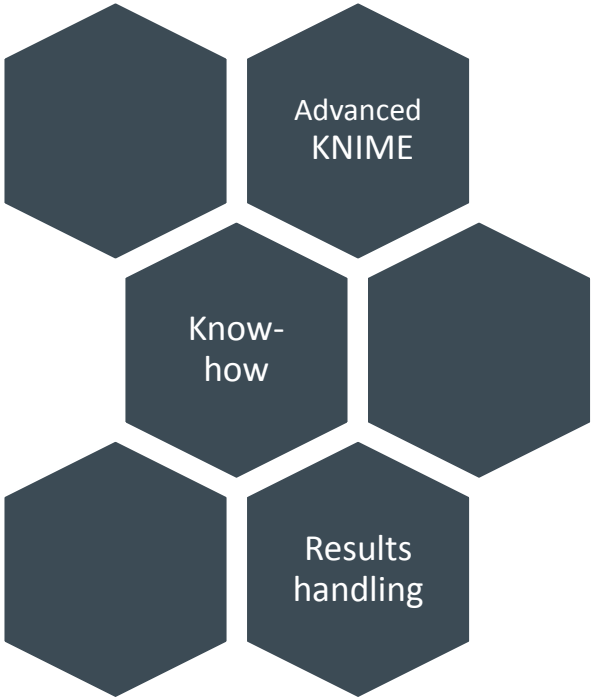
KNIME “INTERMEDIATE”



- Document handling, and specific types
- What nodes can be used – what do they mean
- Is it what I expected?

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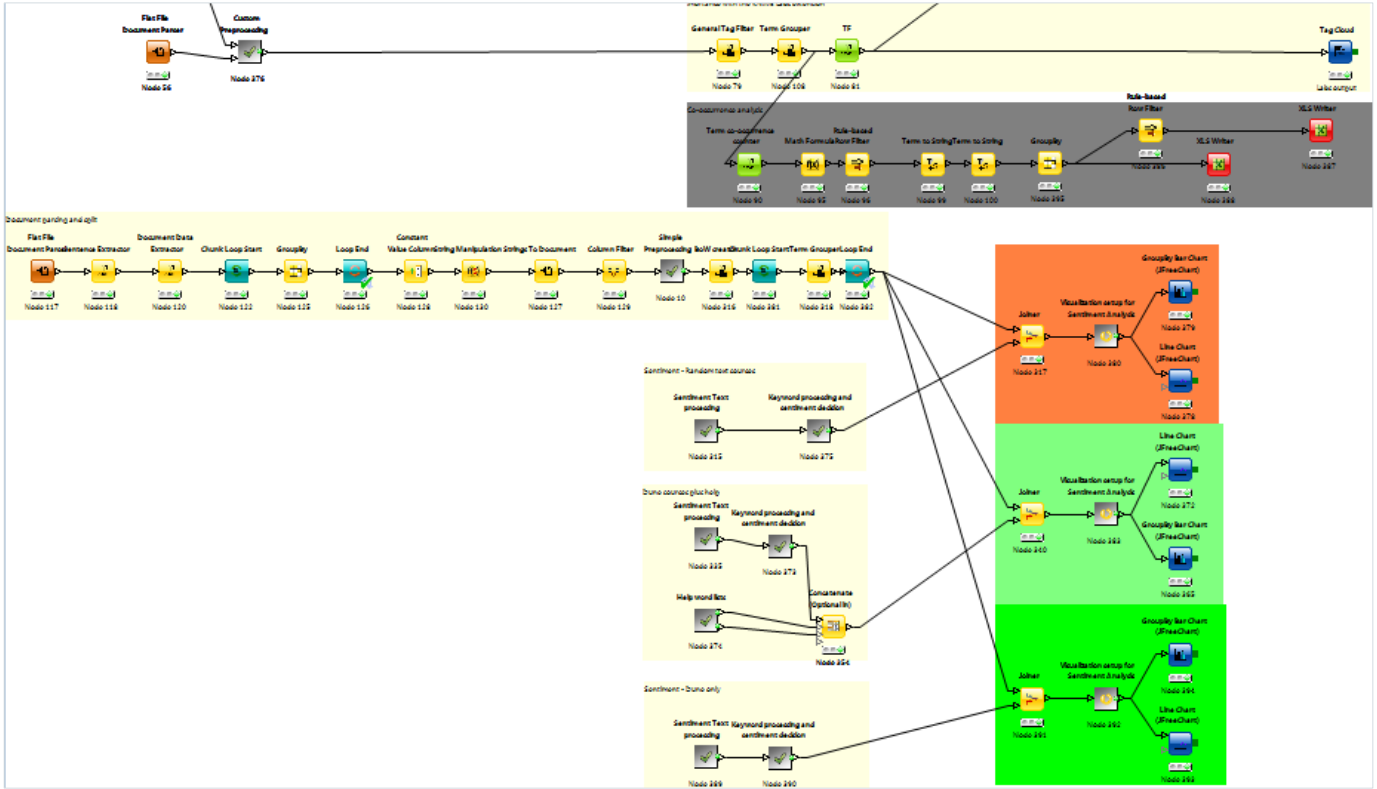
HOW MY WORKFLOW LOOKS



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RESULT OF THE “BASICS”

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THE TAG CLOUD

Aramsham
Chatt Lichna Anirul
Faroula Mohiam Bijaz Kobat Agamemnon
Geoff Ramallo Dama Thufir Wensicia Chenoeh Shoab
Kudu Shaddam Edric Tuek Chani Tamalane Serena Burah Orlop
Mattai Edrik Bellonda Duke Jessica Alia Schwangyu Otheym Xavier
Ghanima Moneo Leto Sheeana Idaho Yueh Piter Nefud
Hellica Scytale Murbella TegPaul WaffUxtal Omnius Margot
Paulus Jamis Gurney Siona Odrade Taraza Kynes Harah Wose Kaleff
Pook Tharthar Korba Hwi Stilgar Khrone Erasmus Mapes Syaksa
Aurelius Turok Wanna Malky Irulan Anteac Luyseyal Shishakli Ikanicre
Duro Ajax Farok Vladimir Logno Norma Helena
Elrood Ajidica Feyd Hasimir Gilbertus

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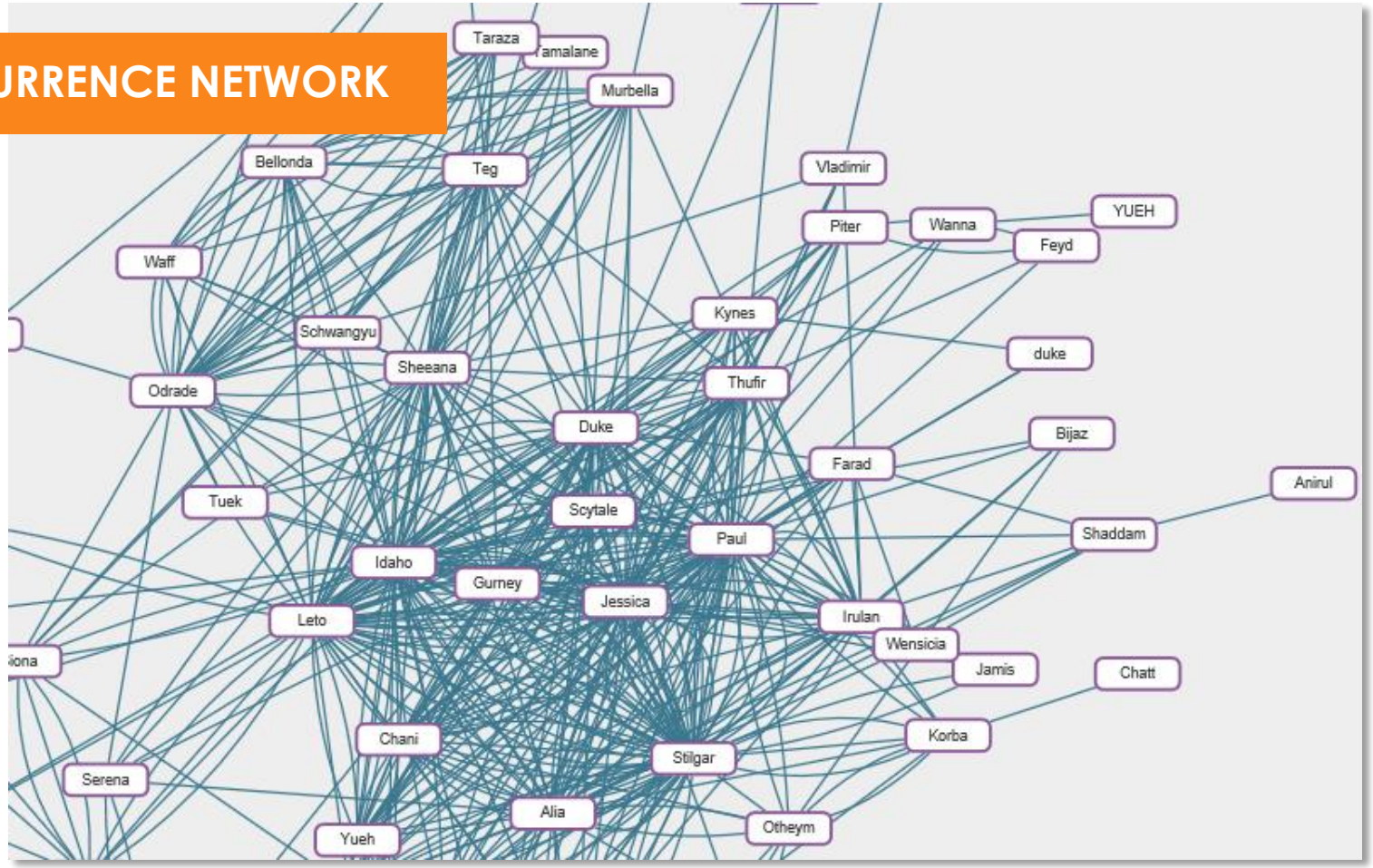
THE CO-OCCURRENCE NETWORK



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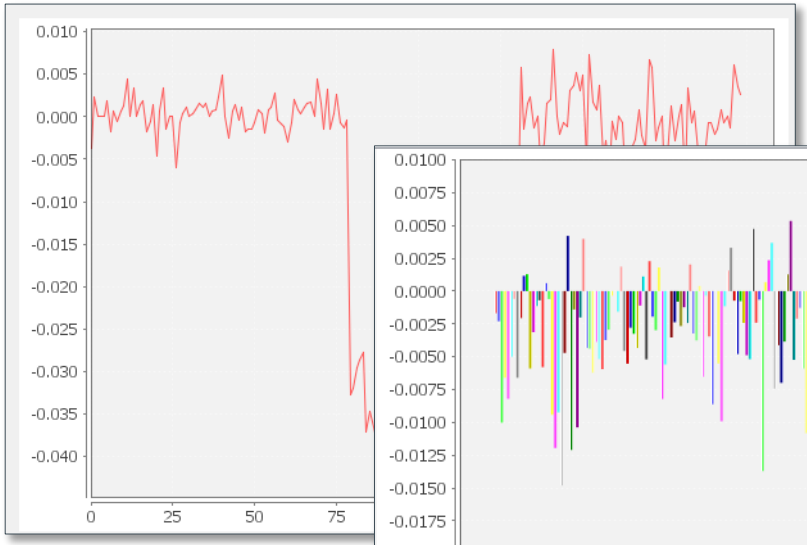
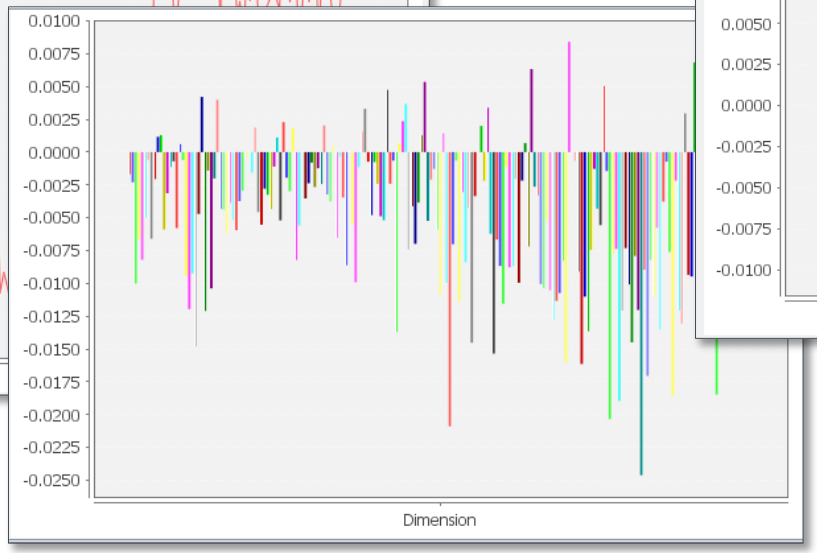
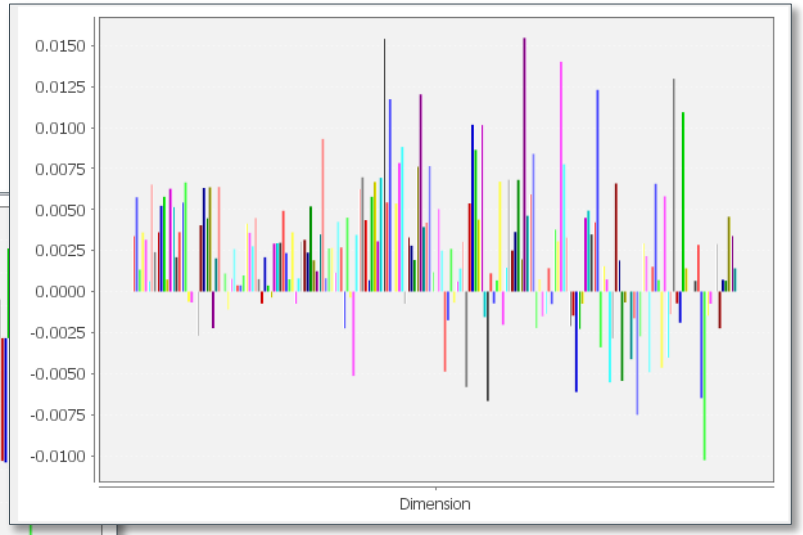
THE SENTIMENT







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Clarity from Complexity

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Let’s start the HARVEST